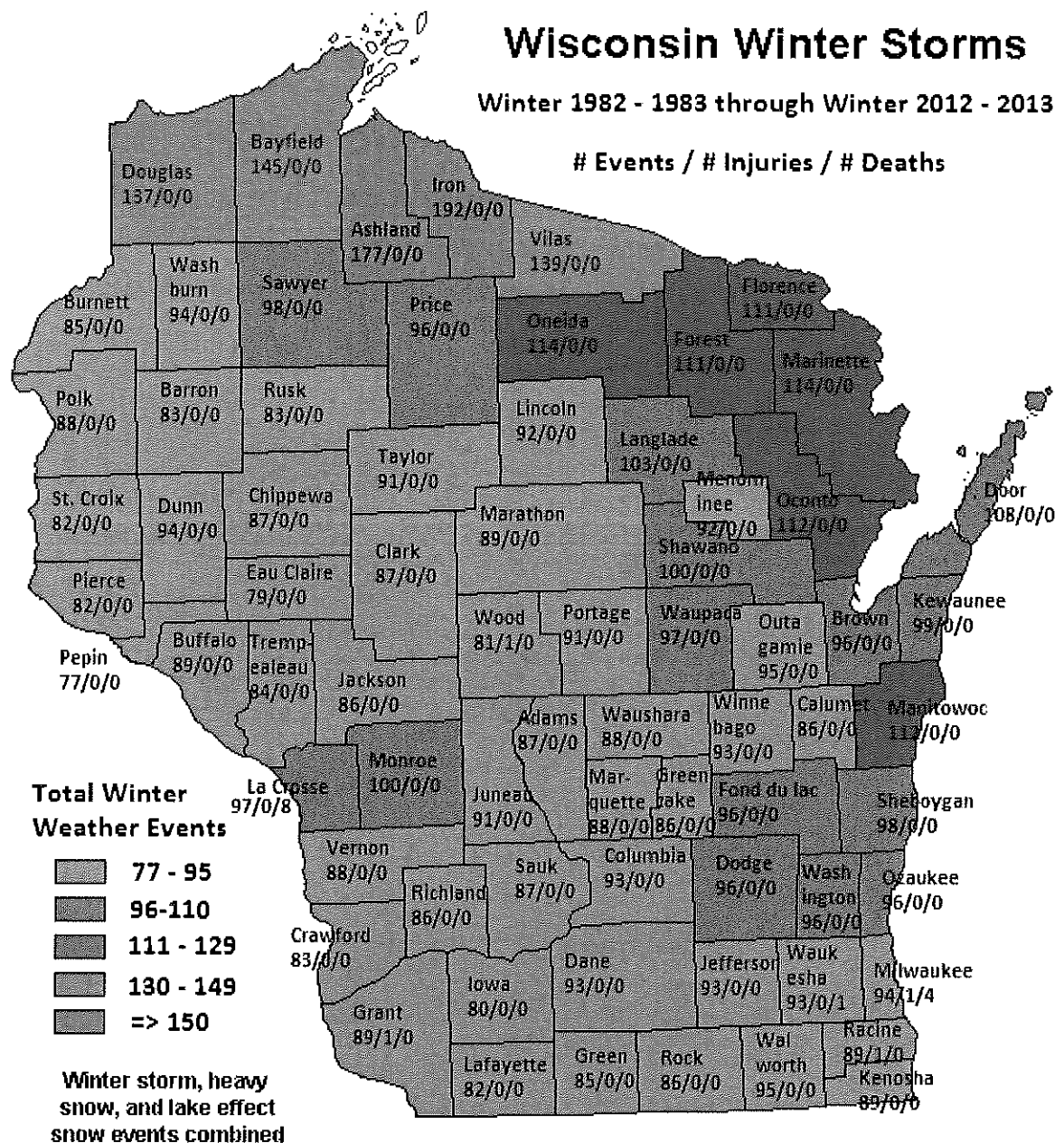


Wisconsin Total Winter Weather Events (1982-2013)¹⁹⁶¹⁹⁶ <http://www.crh.noaa.gov/images/mkx/severe/totalevents.gif>

Appendix A: Maps

Wisconsin Total Severe Weather Events

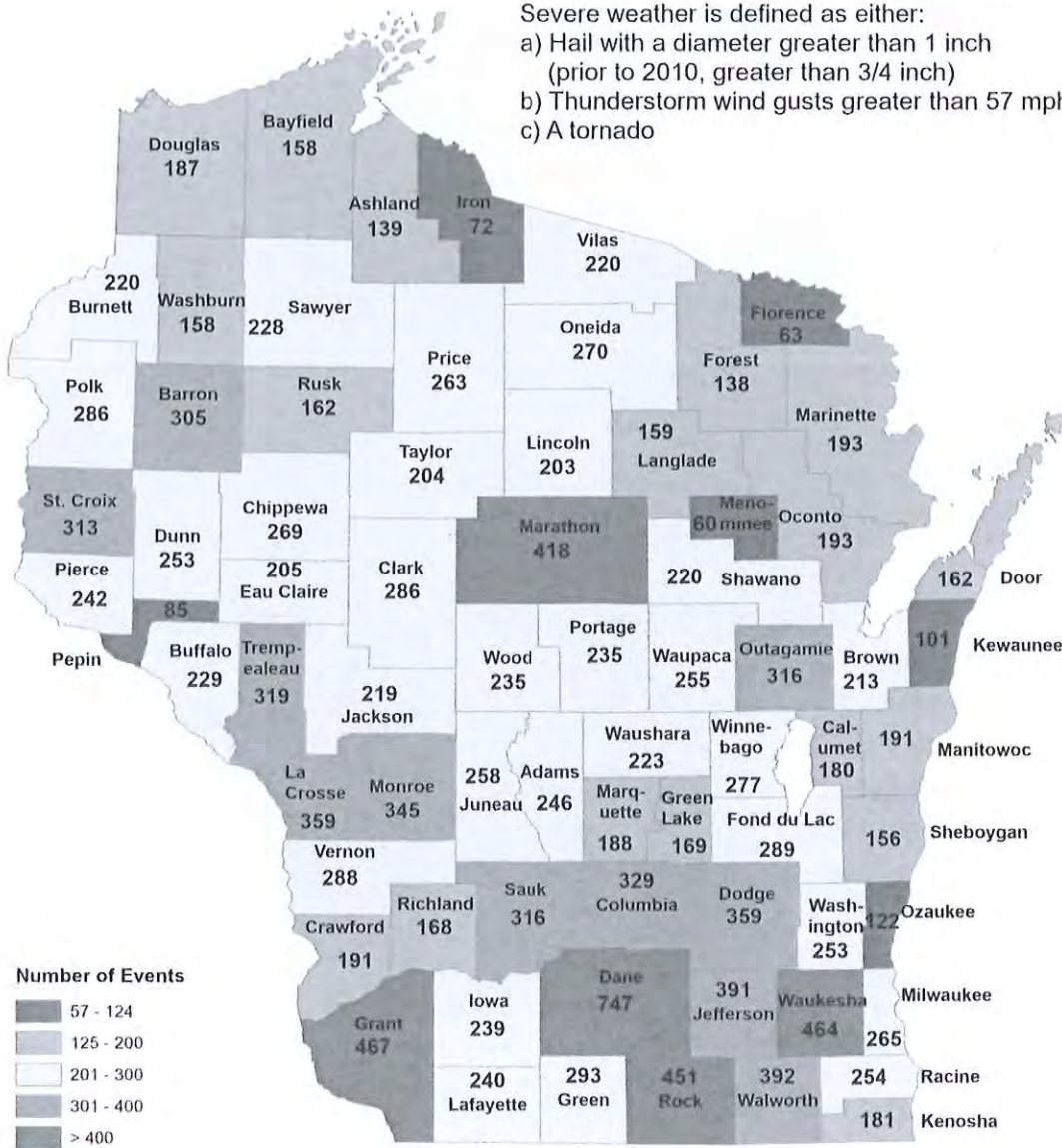


Wisconsin Total Severe Weather Events 1844 - 2023



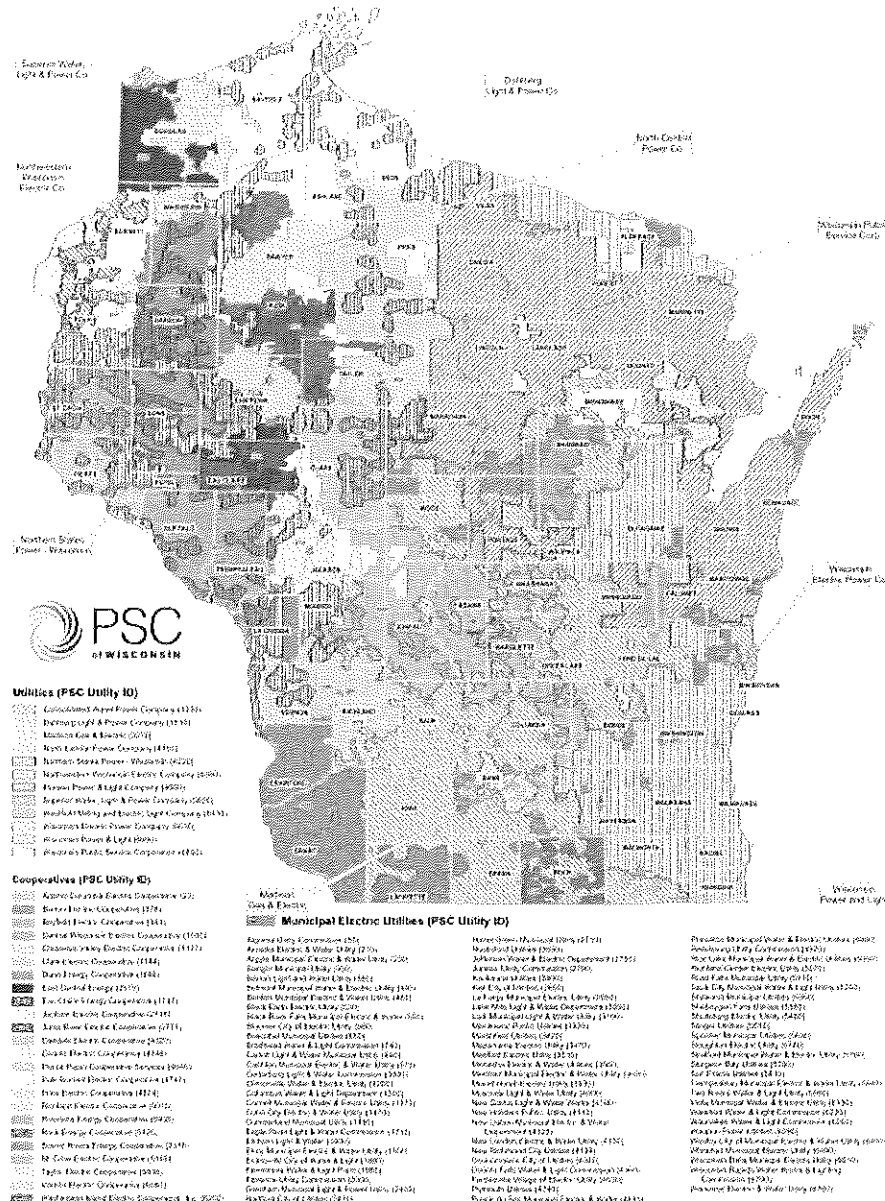
Severe weather is defined as either:

- a) Hail with a diameter greater than 1 inch
(prior to 2010, greater than 3/4 inch)
- b) Thunderstorm wind gusts greater than 57 mph
- c) A tornado



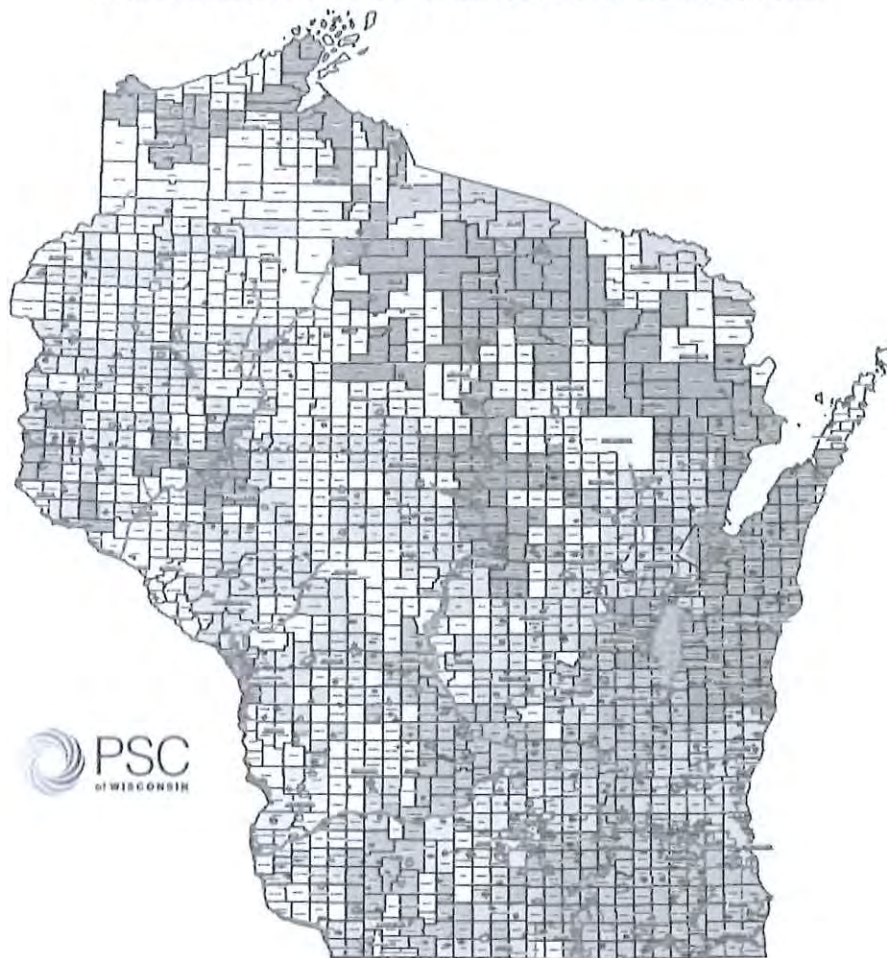
Electric Service Territories (July 2023) ¹⁹⁷

Wisconsin Electric Service Territories



Natural Gas Service Territories (February 2020) ¹⁹⁸

Wisconsin Natural Gas Service Territories



Wisconsin Natural Gas Utilities

-  City Gas Company
-  Florence Utility Commission
-  Madison Gas and Electric Company
-  Midwest Natural Gas Incorporated
-  Northern States Power Company - Wisconsin

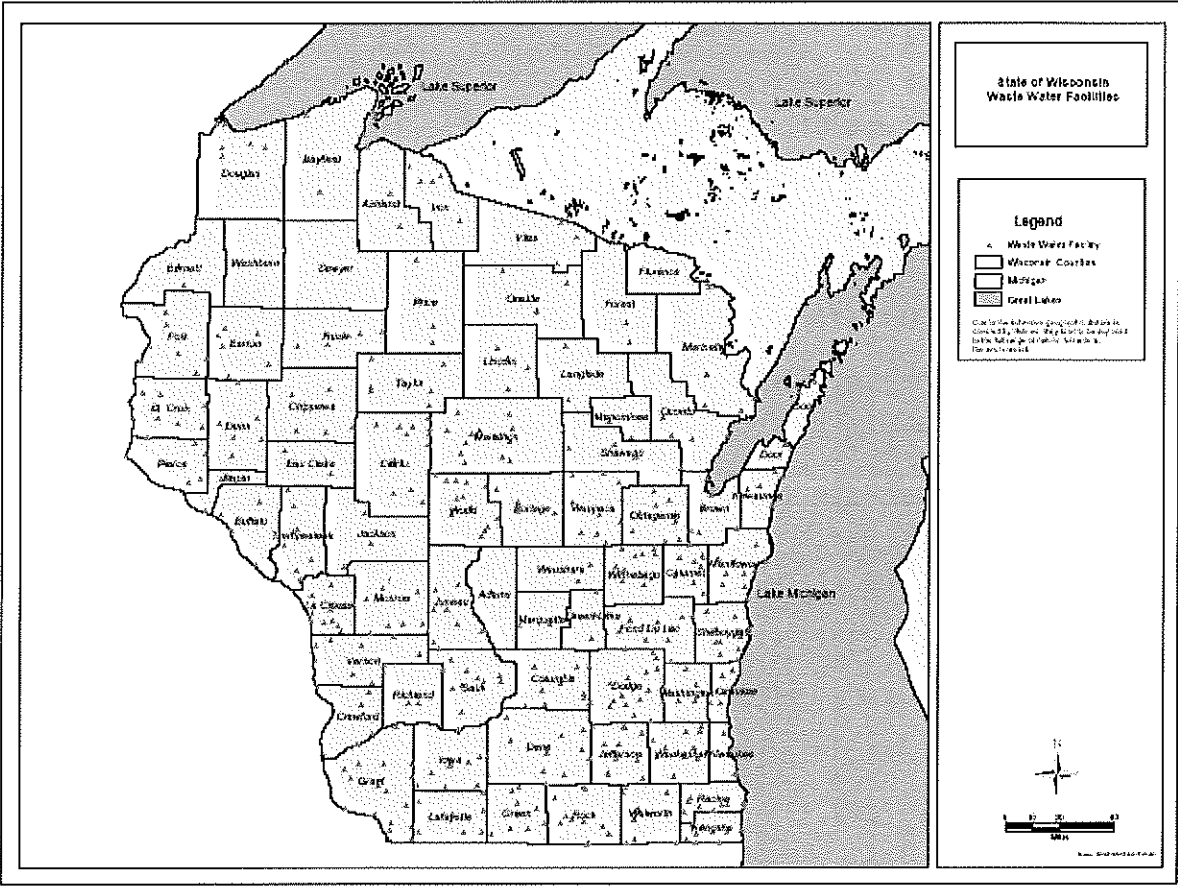
-  St. Croix Valley Natural Gas Company
-  Superior Water, Light, & Power Company
-  Wisconsin Electric Power Company
-  Wisconsin Gas
-  Wisconsin Power and Light Company
-  Wisconsin Public Service Corporation

Service territory boundaries are approximate and subject to change without notice. Portions of the map are water bodies and are not shown to scale. The map is provided as a general reference only.

WISCONSIN PUBLIC SERVICE CORPORATION 10/2019/0001

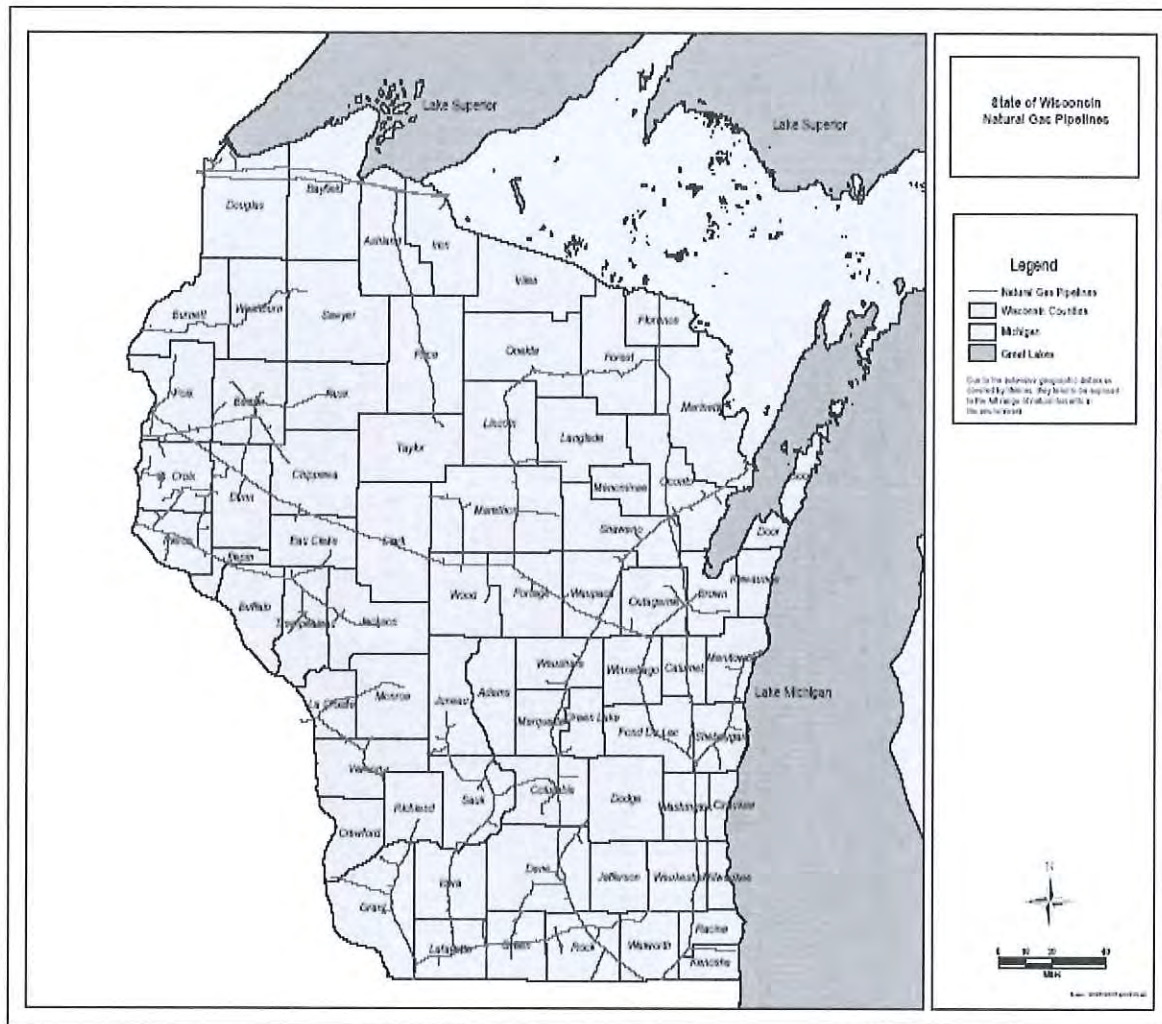
¹⁹⁸ https://psc.wi.gov/SiteAssets/Maps/Natural_Gas_30x42_PUBLIC.pdf

Wastewater Facilities¹⁹⁹



¹⁹⁹ Wisconsin State Hazard Mitigation Plan

Natural Gas Pipelines ²⁰⁰



Appendix B: Frequency of Occurrence

As noted earlier in this plan, the Green Lake County Hazard Mitigation Plan Workgroup reviewed past event records, and an internal workgroup consensus was reached on the anticipated probability of future events, as well as the severity of the effects of those events. The probabilities and severities were designated as “very high,” “high,” “medium,” “low,” or “very low” by the workgroup based on their evaluation and experience with the data. This is the main rating system used for this plan as it comes directly from those living in the area and reflects their current impressions, though they note that climate and weather systems are dynamic events.

The workgroup understands that historical weather data provided by the National Weather Service does not include events that may adversely affect their communities but fall below the reporting thresholds. Each weather event was analyzed for historic frequency and averages over the last 25 years (i.e., from 1 January 2000 through 31 December 2024) and is noted below with each hazard.

DROUGHT					
<i>There were 17 events reported over the 25-year period from 1/1/2000 – 12/31/2024.</i>					
<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	08/01/2002	0	0	0	\$100,000
GREEN LAKE COUNTY	09/01/2003	0	0	0	0
GREEN LAKE COUNTY	10/01/2003	0	0	0	0
GREEN LAKE COUNTY	11/01/2003	0	0	0	0
GREEN LAKE COUNTY	12/01/2003	0	0	0	0
GREEN LAKE COUNTY	07/01/2005	0	0	0	0
GREEN LAKE COUNTY	08/01/2005	0	0	0	0
GREEN LAKE COUNTY	09/01/2005	0	0	0	0
GREEN LAKE COUNTY	10/01/2005	0	0	0	0
GREEN LAKE COUNTY	11/01/2005	0	0	0	0
GREEN LAKE COUNTY	07/01/2007	0	0	0	\$75,000
GREEN LAKE COUNTY	08/01/2007	0	0	0	0
GREEN LAKE COUNTY	06/26/2012	0	0	0	0
GREEN LAKE COUNTY	07/01/2012	0	0	0	0
GREEN LAKE COUNTY	08/01/2012	0	0	0	0
GREEN LAKE COUNTY	09/01/2012	0	0	0	0

Appendix B: Frequency of Occurrence

GREEN LAKE COUNTY	10/01/2012	0	0	0	0
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FLASH FLOOD

There were 3 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

Location	Date	Deaths	Injuries	Property Damage	Crop Damage
FAIRBURN	06/22/2002	0	0	\$10,000	0
MARKESAN	05/08/2004	0	0	\$25,000	0
DALTON	06/07/2008	0	0	0	0

FLOOD

There were 11 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

Location	Date	Deaths	Injuries	Property Damage	Crop Damage
KINGSTON	08/18/2001	0	0	0	0
GREEN LAKE COUNTY	05/25/2004	0	0	\$300,000	\$200,000
GREEN LAKE COUNTY	06/01/2004	0	0	\$2.72M	\$15.0M
GREEN LAKE COUNTY	07/01/2004	0	0	\$100,000	0
BERLIN	09/01/2018	0	0	\$5,000	0
PRINCETON	09/05/2018	0	0	\$1,000	0
PRINCETON	10/01/2018	0	0	\$1,000	0
FAIRBURN	03/14/2019	0	0	\$5,000	0
BERLIN FLD ARPT	03/14/2019	0	0	\$5,000	0
PRINCETON	03/18/2019	0	0	\$1,000	0
BERLIN FLD ARPT	04/01/2019	0	0	\$5,000	0

HEAVY RAIN

There was 1 event reported over the 25-year period from 1/1/2000 – 12/31/2024.

Location	Date	Deaths	Injuries	Property Damage	Crop Damage
GREEN LAKE COUNTY	11/01/2003	0	0	0	0

Appendix B: Frequency of Occurrence

EXCESSIVE HEAT

There were 6 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	07/17/2011	0	0	0	0
GREEN LAKE COUNTY	07/02/2012	0	0	0	0
GREEN LAKE COUNTY	06/29/2018	0	0	0	0
GREEN LAKE COUNTY	06/14/2022	0	0	0	0
GREEN LAKE COUNTY	08/23/2023	0	0	0	0
GREEN LAKE COUNTY	8/26/2024	0	0	0	0

HEAT

There were 21 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	07/31/2001	0	0	0	0
GREEN LAKE COUNTY	08/08/2001	0	0	0	0
GREEN LAKE COUNTY	04/15/2002	0	0	0	0
GREEN LAKE COUNTY	06/30/2002	0	0	0	0
GREEN LAKE COUNTY	07/01/2002	0	0	0	0
GREEN LAKE COUNTY	07/08/2002	0	0	0	0
GREEN LAKE COUNTY	07/21/2002	0	0	0	0
GREEN LAKE COUNTY	06/23/2009	0	0	0	0
GREEN LAKE COUNTY	07/01/2011	0	0	0	0
GREEN LAKE COUNTY	06/28/2012	0	0	0	0
GREEN LAKE COUNTY	07/16/2012	0	0	0	0
GREEN LAKE COUNTY	07/23/2012	0	0	0	0
GREEN LAKE COUNTY	07/25/2012	0	0	0	0
GREEN LAKE COUNTY	07/16/2013	0	0	0	0
GREEN LAKE COUNTY	07/22/2014	0	0	0	0
GREEN LAKE COUNTY	07/21/2016	0	0	0	0
GREEN LAKE COUNTY	06/16/2018	0	0	0	0
GREEN LAKE COUNTY	07/04/2018	0	0	0	0
GREEN LAKE COUNTY	07/19/2019	0	0	0	0
GREEN LAKE COUNTY	06/21/2022	0	0	0	0
GREEN LAKE COUNTY	08/23/2023	0	0	0	0

Appendix B: Frequency of Occurrence

EXTREME COLD/WINDCHILL

There were 6 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	01/30/2008	0	0	0	0
GREEN LAKE COUNTY	02/10/2008	0	0	0	0
GREEN LAKE COUNTY	01/15/2009	0	0	0	0
GREEN LAKE COUNTY	01/06/2014	0	0	0	0
GREEN LAKE COUNTY	01/29/2019	0	0	0	0
GREEN LAKE COUNTY	12/22/2022	0	0	0	0

COLD/WIND CHILL

There were 23 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	12/18/2005	0	0	0	0
GREEN LAKE COUNTY	02/17/2006	0	0	0	0
GREEN LAKE COUNTY	02/18/2006	0	0	0	0
GREEN LAKE COUNTY	02/03/2007	0	0	\$1,000	0
GREEN LAKE COUNTY	01/19/2008	0	0	0	0
GREEN LAKE COUNTY	12/15/2008	0	0	0	0
GREEN LAKE COUNTY	12/21/2008	1	0	0	0
GREEN LAKE COUNTY	01/13/2009	0	0	0	0
GREEN LAKE COUNTY	01/14/2009	0	0	0	0
GREEN LAKE COUNTY	01/24/2009	0	0	0	0
GREEN LAKE COUNTY	01/21/2011	0	0	0	0
GREEN LAKE COUNTY	01/21/2013	0	0	0	0
GREEN LAKE COUNTY	01/27/2014	0	0	0	0
GREEN LAKE COUNTY	01/07/2015	0	0	0	0
GREEN LAKE COUNTY	01/09/2015	0	0	0	0
GREEN LAKE COUNTY	12/14/2016	0	0	0	0
GREEN LAKE COUNTY	12/18/2016	0	0	0	0
GREEN LAKE COUNTY	12/25/2017	0	0	0	0
GREEN LAKE COUNTY	01/01/2018	0	0	0	0
GREEN LAKE COUNTY	02/06/2021	0	0	0	0
GREEN LAKE COUNTY	02/13/2021	0	0	0	0
GREEN LAKE COUNTY	01/25/2022	0	0	0	0
GREEN LAKE COUNTY	01/14/2024	0	0	0	0

Appendix B: Frequency of Occurrence

HAIL						
<i>There were 44 events reported over the 25-year period from 1/1/2000 – 12/31/2024.</i>						
<i>Location</i>	<i>Date</i>	<i>Diameter (Inches)</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
PRINCETON	03/08/2000	0.75	0	0	0	0
MARQUETTE	03/08/2000	0.75	0	0	0	0
BERLIN	05/12/2000	2.75	0	4	\$1.5M	\$300,000
KINGSTON	06/01/2000	0.75	0	0	0	0
PRINCETON	09/11/2000	1.00	0	0	0	0
PRINCETON	04/23/2001	1.00	0	0	0	0
BERLIN	04/23/2001	0.75	0	0	0	0
GREEN LAKE	05/10/2001	0.75	0	0	0	0
PRINCETON	05/14/2001	0.75	0	0	0	0
MARKESAN	05/14/2001	0.75	0	0	0	0
BERLIN	04/18/2002	0.75	0	0	0	0
GREEN LAKE	04/18/2002	0.75	0	0	0	0
PRINCETON	05/10/2003	1.00	0	0	0	0
BERLIN	05/12/2004	0.75	0	0	0	0
MARKESAN	06/23/2004	1.75	0	0	\$2,000	0
BERLIN	10/23/2004	0.88	0	0	0	0
KINGSTON	07/25/2005	1.00	0	0	0	0
MARQUETTE	06/06/2006	0.88	0	0	0	0
MARQUETTE	07/01/2006	1.75	0	0	0	0
MARQUETTE	07/01/2006	1.75	0	0	0	0
GREEN LAKE	07/01/2006	1.00	0	0	0	0
BERLIN	07/17/2006	0.88	0	0	0	0
KINGSTON	10/02/2006	0.75	0	0	0	0
DALTON	10/02/2006	1.50	0	0	0	0
KINGSTON	10/02/2006	0.75	0	0	0	0
PRINCETON	04/25/2008	0.88	0	0	0	0
DALTON	04/25/2008	0.88	0	0	0	0
KINGSTON	04/25/2008	1.00	0	0	0	0
GREEN LAKE	04/25/2008	1.00	0	0	0	0
DALTON	07/27/2009	1.50	0	0	0	\$5,000
GREEN LAKE	04/30/2010	1.00	0	0	0	0
PRINCETON	05/22/2011	1.75	0	0	0	0
PRINCETON	05/22/2011	1.75	0	0	0	0
BERLIN	06/06/2011	1.00	0	0	0	0

Appendix B: Frequency of Occurrence

MARQUETTE	06/08/2011	1.00	0	0	0	0
MARQUETTE	05/28/2012	1.00	0	0	0	0
BERLIN	08/02/2015	0.88	0	0	0	0
FAIRBURN	05/17/2017	0.75	0	0	0	0
BERLIN	07/15/2017	0.88	0	0	0	0
BERLIN	08/07/2019	1.00	0	0	0	0
BERLIN	08/07/2019	1.50	0	0	0	0
BERLIN	08/25/2020	1.25	0	0	0	0
BERLIN	09/07/2021	1.00	0	0	0	0
MARKESAN	09/07/2021	1.00	0	0	0	0

LIGHTNING

There were 2 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

Location	Date	Deaths	Injuries	Property Damage	Crop Damage
GREEN LAKE	04/18/2004	0	0	\$20,000	0
MARQUETTE	04/18/2004	0	0	\$50,000	0

THUNDERSTORM WIND

There were 60 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

Location	Date	KTS	Deaths	Injuries	Property Damage	Crop Damage
MARKESAN	06/01/2000	N/A	0	0	\$2,000	0
DALTON	06/11/2001	55 E	0	0	\$100,000	0
MARQUETTE	06/16/2001	52 E	0	0	\$10,000	0
PRINCETON	09/07/2001	52 E	0	0	0	0
KINGSTON	09/07/2001	56 E	0	0	0	0
BERLIN	07/20/2003	52 EG	0	0	0	0
MARQUETTE	08/20/2003	56 EG	0	0	0	0
MARKESAN	04/17/2004	65 EG	0	0	\$100,000	0
COUNTYWIDE	07/23/2005	56 EG	0	0	\$50,000	0
BERLIN	09/07/2005	52 EG	0	0	0	0
GREEN LAKE	09/13/2005	62 MG	0	0	0	0
BERLIN	07/30/2006	52 EG	0	0	0	0
MARKESAN	04/22/2007	45 EG	0	0	\$30,000	0
BERLIN	05/24/2007	56 EG	0	0	\$20,000	0
GREEN LAKE	07/03/2007	52 EG	0	0	0	0

Appendix B: Frequency of Occurrence

KINGSTON	08/11/2007	52 MG	0	0	\$10,000	0
DALTON	06/07/2008	61 EG	0	0	\$25,000	0
DALTON	06/07/2008	52 EG	0	0	0	0
GREEN LAKE	07/07/2008	56 EG	0	0	\$10,000	0
PRINCETON	07/10/2008	65 EG	0	0	\$20,000	0
MARKESAN	07/12/2008	56 EG	0	0	0	0
DALTON	07/16/2008	56 EG	0	0	\$10,000	0
PRINCETON	08/09/2008	50 EG	0	0	0	0
DALTON	07/27/2009	65 EG	0	0	0	0
BERLIN	08/20/2010	50 EG	0	0	\$100,000	\$2,000
DALTON	08/20/2010	56 EG	0	0	0	0
GREEN LAKE	08/20/2010	87 EG	0	0	0	0
DALTON	06/08/2011	65 EG	0	0	0	0
MARKESAN	06/21/2011	50 EG	0	0	0	0
BERLIN	07/11/2011	55 MG	0	0	0	0
PRINCETON	07/19/2011	52 EG	0	0	0	0
MARQUETTE	05/28/2012	56 EG	0	0	\$5,000	0
GREEN LAKE	08/18/2014	50 EG	0	0	\$1,000	0
MARQUETTE	05/26/2015	50 EG	0	0	\$500	0
PRINCETON	06/29/2015	50 EG	0	0	\$2,000	0
PRINCETON	07/13/2015	65 EG	0	0	\$10,000	0
GREEN LAKE	05/25/2016	50 EG	0	0	\$2,000	0
GREEN LAKE	05/25/2016	50 EG	0	0	\$1,000	0
DALTON	07/21/2016	56 EG	0	0	\$10,000	0
PRINCETON	07/21/2016	56 EG	0	0	\$5,000	0
GREEN LAKE	07/21/2016	56 EG	0	0	\$5,000	0
PRINCETON	06/12/2017	61 EG	0	0	\$5,000	0
PRINCETON	06/14/2017	50 EG	0	0	\$2,000	0
MARKESAN	06/14/2017	65 EG	0	0	\$20,000	0
KINGSTON	08/28/2018	87 EG	0	0	\$295,000	\$10,000
PRINCETON	06/27/2019	50 EG	0	0	\$2,000	0
MARQUETTE	06/27/2019	51 MG	0	0	0	0
FAIRBURN	06/27/2019	50 EG	0	0	\$2,000	0
GREEN LAKE	06/27/2019	50 EG	0	0	\$1,000	0
BERLIN	08/07/2019	52 EG	0	0	\$5,000	0
MARQUETTE	06/02/2020	56 EG	0	0	\$3,000	0
KINGSTON	06/02/2020	52 MG	0	0	0	0
BERLIN	07/28/2020	50 EG	0	0	\$5,000	0
DALTON	08/07/2021	52 EG	0	0	0	0
PRINCETON	06/15/2022	56 EG	0	0	\$10,000	0

Appendix B: Frequency of Occurrence

MANCHESTER	06/15/2022	56 EG	0	0	\$5,000	0
GREEN LAKE	07/23/2022	52 EG	0	0	\$4,000	0
MANCHESTER	07/23/2022	52 EG	0	0	0	0
BERLIN	5/21/2024	55 EG	0	0	\$10,000	0
MARKESAN	5/21/2024	50 EG	0	0	\$1,000	0

HIGH WIND

There were 4 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

Location	Date	KTS	Deaths	Injuries	Property Damage	Crop Damage
GREEN LAKE COUNTY	04/07/2001	52 E	0	0	0	0
GREEN LAKE COUNTY	04/12/2001	54 E	0	0	0	0
GREEN LAKE COUNTY	10/26/2010	54 MG	0	0	\$15,000	0
GREEN LAKE COUNTY	12/15/2021	50 MG	0	0	\$3,000	0

STRONG WIND

There were 25 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

Location	Date	KTS	Deaths	Injuries	Property Damage	Crop Damage
GREEN LAKE COUNTY	05/24/2000	N/A	0	0	0	0
GREEN LAKE COUNTY	10/24/2001	N/A	0	0	0	0
GREEN LAKE COUNTY	12/05/2001	N/A	0	0	\$5,000	0
GREEN LAKE COUNTY	11/12/2003	39 EG	0	0	\$2,000	0
GREEN LAKE COUNTY	03/14/2004	39 EG	0	0	\$2,000	0
GREEN LAKE COUNTY	04/18/2004	46 MG	0	0	\$10,000	0
GREEN LAKE COUNTY	12/12/2004	39 EG	0	0	\$1,000	0
GREEN LAKE COUNTY	01/24/2006	40 EG	0	0	\$5,000	0
GREEN LAKE COUNTY	05/11/2006	36 EG	0	0	\$1,000	0
GREEN LAKE COUNTY	02/22/2007	39 EG	0	0	\$2,000	0
GREEN LAKE COUNTY	05/24/2007	39 EG	0	0	\$2,000	0
GREEN LAKE COUNTY	11/05/2007	39 EG	0	0	\$3,000	0
GREEN LAKE COUNTY	05/05/2010	39 EG	0	0	\$30,000	0
GREEN LAKE COUNTY	02/18/2011	26 ES	0	0	\$2,000	0
GREEN LAKE COUNTY	04/15/2011	39 EG	0	0	\$3,000	0
GREEN LAKE COUNTY	09/29/2011	39 EG	0	0	\$2,000	0
GREEN LAKE COUNTY	01/01/2012	45 EG	0	0	\$1,000	0
GREEN LAKE COUNTY	01/19/2013	43 EG	0	0	\$5,000	0

Appendix B: Frequency of Occurrence

GREEN LAKE COUNTY	03/16/2016	43 EG	0	0	\$1,000	0
GREEN LAKE COUNTY	03/18/2017	43 EG	0	0	\$5,000	0
GREEN LAKE COUNTY	12/04/2017	41 EG	0	0	\$4,000	0
GREEN LAKE COUNTY	10/20/2018	39 EG	0	0	\$1,000	0
GREEN LAKE COUNTY	02/24/2019	39 EG	0	0	\$1,000	0
GREEN LAKE COUNTY	11/27/2019	39 EG	0	0	\$5,000	0
GREEN LAKE COUNTY	04/14/2022	43 EG	0	0	\$2,000	0

TORNADO

There were 18 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Strength</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
MARQUETTE	06/11/2001	F0	0	0	\$100,000	0
MANCHESTER	06/23/2004	F3	0	0	\$1.41M	\$500,000
MARKESAN	06/23/2004	F3	1	0	\$675,000	\$300,000
MANCHESTER	04/25/2008	EF0	0	0	0	0
MANCHESTER	06/12/2008	EF0	0	0	0	0
MANCHESTER	07/07/2008	EF1	0	0	\$30,000	\$10,000
DALTON	07/10/2008	EF1	0	0	\$150,000	0
DALTON	07/27/2009	EF0	0	0	\$0.00	\$2,000
BERLIN	04/30/2010	EF1	0	0	\$130,000	0
DALTON	04/30/2010	EF0	0	0	0	0
KINGSTON	04/30/2010	EF0	0	0	0	0
BERLIN	04/10/2011	EF0	0	0	\$300	0
DALTON	05/22/2011	EF0	0	0	\$1,000	0
MARKESAN	05/22/2011	EF0	0	0	\$5,000	0
MARKESAN	06/21/2011	EF1	0	0	\$5,000	0
GREEN LAKE	06/21/2011	EF1	0	0	\$2,000	0
MARQUETTE	08/28/2018	EF1	0	0	0	0
MARQUETTE	08/28/2018	EF0	0	0	0	0

Appendix B: Frequency of Occurrence

FUNNEL CLOUD

There were 7 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
PRINCETON	05/30/2003	0	0	0	0
MARKESAN	06/08/2003	0	0	0	0
KINGSTON	06/08/2003	0	0	0	0
KINGSTON	06/23/2004	0	0	0	0
BERLIN	07/01/2006	0	0	0	0
BERLIN	06/21/2011	0	0	0	0
BERLIN	8/1/2024	0	0	0	0

WINTER WEATHER

There were 131 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	02/02/2003	0	0	0	0
GREEN LAKE COUNTY	12/10/2003	0	0	0	0
GREEN LAKE COUNTY	01/04/2004	0	0	0	0
GREEN LAKE COUNTY	01/16/2004	0	0	0	0
GREEN LAKE COUNTY	02/08/2004	0	0	0	0
GREEN LAKE COUNTY	12/20/2004	0	0	0	0
GREEN LAKE COUNTY	11/15/2005	0	0	0	0
GREEN LAKE COUNTY	11/10/2006	0	0	0	0
GREEN LAKE COUNTY	01/12/2007	0	0	0	0
GREEN LAKE COUNTY	01/14/2007	0	0	0	0
GREEN LAKE COUNTY	01/21/2007	0	0	0	0
GREEN LAKE COUNTY	03/01/2007	0	0	0	0
GREEN LAKE COUNTY	03/02/2007	0	0	0	0
GREEN LAKE COUNTY	03/02/2007	0	0	0	0
GREEN LAKE COUNTY	11/21/2007	0	0	0	0
GREEN LAKE COUNTY	12/04/2007	0	0	0	0
GREEN LAKE COUNTY	12/22/2007	0	0	0	0
GREEN LAKE COUNTY	12/28/2007	0	0	0	0
GREEN LAKE COUNTY	01/16/2008	0	0	0	0
GREEN LAKE COUNTY	01/21/2008	0	0	0	0
GREEN LAKE COUNTY	02/09/2008	0	0	0	0

Appendix B: Frequency of Occurrence

GREEN LAKE COUNTY	11/24/2008	0	0	0	0
GREEN LAKE COUNTY	12/16/2008	0	0	0	0
GREEN LAKE COUNTY	12/23/2008	0	0	0	0
GREEN LAKE COUNTY	12/24/2008	0	0	0	0
GREEN LAKE COUNTY	12/25/2008	0	0	0	0
GREEN LAKE COUNTY	12/27/2008	0	0	0	0
GREEN LAKE COUNTY	01/03/2009	0	0	0	0
GREEN LAKE COUNTY	01/12/2009	0	0	0	0
GREEN LAKE COUNTY	02/26/2009	0	0	0	0
GREEN LAKE COUNTY	12/23/2009	0	0	0	0
GREEN LAKE COUNTY	01/07/2010	0	0	0	0
GREEN LAKE COUNTY	02/08/2010	0	0	0	0
GREEN LAKE COUNTY	12/03/2010	0	0	0	0
GREEN LAKE COUNTY	12/09/2010	0	0	0	0
GREEN LAKE COUNTY	12/20/2010	0	0	0	0
GREEN LAKE COUNTY	01/17/2011	0	0	0	0
GREEN LAKE COUNTY	02/21/2011	0	0	0	0
GREEN LAKE COUNTY	03/09/2011	0	0	0	0
GREEN LAKE COUNTY	11/09/2011	0	0	0	0
GREEN LAKE COUNTY	12/29/2011	0	0	0	0
GREEN LAKE COUNTY	01/12/2012	0	0	0	0
GREEN LAKE COUNTY	01/17/2012	0	0	0	0
GREEN LAKE COUNTY	01/22/2012	0	0	0	0
GREEN LAKE COUNTY	12/09/2012	0	0	0	0
GREEN LAKE COUNTY	01/27/2013	0	0	0	0
GREEN LAKE COUNTY	02/07/2013	0	0	0	0
GREEN LAKE COUNTY	02/22/2013	0	0	0	0
GREEN LAKE COUNTY	02/26/2013	0	0	0	0
GREEN LAKE COUNTY	03/05/2013	0	0	0	0
GREEN LAKE COUNTY	03/15/2013	0	0	0	0
GREEN LAKE COUNTY	03/18/2013	0	0	0	0
GREEN LAKE COUNTY	04/10/2013	0	0	0	0
GREEN LAKE COUNTY	12/19/2013	0	0	0	0
GREEN LAKE COUNTY	01/10/2014	0	0	0	0
GREEN LAKE COUNTY	01/24/2014	0	0	0	0
GREEN LAKE COUNTY	01/26/2014	0	0	0	0
GREEN LAKE COUNTY	01/26/2014	0	0	0	0
GREEN LAKE COUNTY	02/13/2014	0	0	0	0
GREEN LAKE COUNTY	02/17/2014	0	0	0	0

Appendix B: Frequency of Occurrence

GREEN LAKE COUNTY	11/24/2014	0	0	0	0
GREEN LAKE COUNTY	11/28/2014	0	0	0	0
GREEN LAKE COUNTY	12/08/2014	0	0	0	0
GREEN LAKE COUNTY	01/08/2015	0	0	0	0
GREEN LAKE COUNTY	02/01/2015	0	0	0	0
GREEN LAKE COUNTY	01/25/2016	0	0	0	0
GREEN LAKE COUNTY	03/01/2016	0	0	0	0
GREEN LAKE COUNTY	04/02/2016	0	0	0	0
GREEN LAKE COUNTY	04/08/2016	0	0	0	0
GREEN LAKE COUNTY	12/04/2016	0	0	0	0
GREEN LAKE COUNTY	12/10/2016	0	0	0	0
GREEN LAKE COUNTY	12/23/2016	0	0	0	0
GREEN LAKE COUNTY	01/03/2017	0	0	0	0
GREEN LAKE COUNTY	01/10/2017	0	0	0	0
GREEN LAKE COUNTY	01/11/2017	0	0	0	0
GREEN LAKE COUNTY	01/16/2017	0	0	0	0
GREEN LAKE COUNTY	01/24/2017	0	0	0	0
GREEN LAKE COUNTY	02/24/2017	0	0	0	0
GREEN LAKE COUNTY	03/01/2017	0	0	0	0
GREEN LAKE COUNTY	03/12/2017	0	0	0	0
GREEN LAKE COUNTY	01/14/2018	0	0	0	0
GREEN LAKE COUNTY	02/03/2018	0	0	0	0
GREEN LAKE COUNTY	02/22/2018	0	0	0	0
GREEN LAKE COUNTY	03/05/2018	0	0	0	0
GREEN LAKE COUNTY	04/03/2018	0	0	0	0
GREEN LAKE COUNTY	04/18/2018	0	0	0	0
GREEN LAKE COUNTY	12/28/2018	0	0	0	0
GREEN LAKE COUNTY	01/15/2019	0	0	0	0
GREEN LAKE COUNTY	01/22/2019	0	0	0	0
GREEN LAKE COUNTY	02/02/2019	0	0	0	0
GREEN LAKE COUNTY	02/05/2019	0	0	0	0
GREEN LAKE COUNTY	02/07/2019	0	0	0	0
GREEN LAKE COUNTY	02/23/2019	0	0	0	0
GREEN LAKE COUNTY	02/26/2019	0	0	0	0
GREEN LAKE COUNTY	03/09/2019	0	0	0	0
GREEN LAKE COUNTY	04/10/2019	0	0	0	0
GREEN LAKE COUNTY	10/28/2019	0	0	0	0
GREEN LAKE COUNTY	10/30/2019	0	0	0	0
GREEN LAKE COUNTY	11/06/2019	0	0	0	0

Appendix B: Frequency of Occurrence

GREEN LAKE COUNTY	12/30/2019	0	0	0	0
GREEN LAKE COUNTY	01/17/2020	0	0	0	0
GREEN LAKE COUNTY	02/17/2020	0	0	0	0
GREEN LAKE COUNTY	11/24/2020	0	0	0	0
GREEN LAKE COUNTY	12/27/2020	0	0	0	0
GREEN LAKE COUNTY	12/29/2020	0	0	0	0
GREEN LAKE COUNTY	01/30/2021	0	0	0	0
GREEN LAKE COUNTY	02/04/2021	0	0	0	0
GREEN LAKE COUNTY	02/11/2021	0	0	0	0
GREEN LAKE COUNTY	02/13/2021	0	0	0	0
GREEN LAKE COUNTY	12/10/2021	0	0	0	0
GREEN LAKE COUNTY	12/28/2021	0	0	0	0
GREEN LAKE COUNTY	12/31/2021	0	0	0	0
GREEN LAKE COUNTY	01/05/2022	0	0	0	0
GREEN LAKE COUNTY	01/24/2022	0	0	0	0
GREEN LAKE COUNTY	02/18/2022	0	0	0	0
GREEN LAKE COUNTY	02/21/2022	0	0	0	0
GREEN LAKE COUNTY	02/24/2022	0	0	0	0
GREEN LAKE COUNTY	03/07/2022	0	0	0	0
GREEN LAKE COUNTY	03/31/2022	0	0	0	0
GREEN LAKE COUNTY	12/14/2022	0	0	0	0
GREEN LAKE COUNTY	12/22/2022	0	0	0	0
GREEN LAKE COUNTY	01/11/2023	0	0	0	0
GREEN LAKE COUNTY	01/18/2023	0	0	0	0
GREEN LAKE COUNTY	01/28/2023	0	0	0	0
GREEN LAKE COUNTY	02/09/2023	0	0	0	0
GREEN LAKE COUNTY	02/16/2023	0	0	0	0
GREEN LAKE COUNTY	03/11/2023	0	0	0	0
GREEN LAKE COUNTY	12/30/2023	0	0	0	0
GREEN LAKE COUNTY	01/22/2024	0	0	0	0
GREEN LAKE COUNTY	02/15/2024	0	0	0	0
GREEN LAKE COUNTY	3/22/2024	0	0	0	0

Appendix B: Frequency of Occurrence

WINTER STORM

There were 41 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	01/03/2000	0	0	0	0
GREEN LAKE COUNTY	04/07/2000	0	0	0	0
GREEN LAKE COUNTY	01/06/2005	0	0	0	0
GREEN LAKE COUNTY	01/22/2005	0	0	0	0
GREEN LAKE COUNTY	02/20/2005	0	0	0	0
GREEN LAKE COUNTY	03/19/2005	0	0	0	0
GREEN LAKE COUNTY	02/16/2006	0	0	0	0
GREEN LAKE COUNTY	02/23/2007	0	0	0	0
GREEN LAKE COUNTY	02/25/2007	0	0	0	0
GREEN LAKE COUNTY	04/11/2007	0	0	\$10,000	0
GREEN LAKE COUNTY	12/01/2007	0	0	0	0
GREEN LAKE COUNTY	01/29/2008	0	0	0	0
GREEN LAKE COUNTY	02/05/2008	0	0	0	0
GREEN LAKE COUNTY	02/17/2008	0	0	0	0
GREEN LAKE COUNTY	03/21/2008	0	0	0	0
GREEN LAKE COUNTY	12/01/2008	0	0	0	0
GREEN LAKE COUNTY	12/08/2008	0	0	0	0
GREEN LAKE COUNTY	12/18/2008	0	0	0	0
GREEN LAKE COUNTY	12/20/2008	0	0	0	0
GREEN LAKE COUNTY	03/08/2009	0	0	0	0
GREEN LAKE COUNTY	12/08/2009	0	0	0	0
GREEN LAKE COUNTY	02/01/2011	0	0	0	0
GREEN LAKE COUNTY	02/20/2011	0	0	0	0
GREEN LAKE COUNTY	04/19/2011	0	0	0	0
GREEN LAKE COUNTY	03/02/2012	0	0	0	0
GREEN LAKE COUNTY	01/30/2013	0	0	0	0
GREEN LAKE COUNTY	12/22/2013	0	0	0	0
GREEN LAKE COUNTY	01/14/2014	0	0	0	0
GREEN LAKE COUNTY	12/28/2015	0	0	0	0
GREEN LAKE COUNTY	02/02/2016	0	0	0	0
GREEN LAKE COUNTY	03/23/2016	0	0	0	0
GREEN LAKE COUNTY	12/16/2016	0	0	0	0
GREEN LAKE COUNTY	04/14/2018	0	0	0	0
GREEN LAKE COUNTY	01/28/2019	0	0	0	0
GREEN LAKE COUNTY	02/11/2019	0	0	0	0

Appendix B: Frequency of Occurrence

GREEN LAKE COUNTY	02/09/2020	0	0	0	0
GREEN LAKE COUNTY	02/22/2023	0	0	0	0
GREEN LAKE COUNTY	03/09/2023	0	0	0	0
GREEN LAKE COUNTY	03/25/2023	0	0	0	0
GREEN LAKE COUNTY	01/09/2024	0	0	\$3,000	0
GREEN LAKE COUNTY	01/12/2024	0	0	\$7,000	0
GREEN LAKE COUNTY	4/2/2024	0	0	\$7,000	0

HEAVY SNOW

There were 4 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	12/18/2000	0	0	0	0
GREEN LAKE COUNTY	03/02/2002	0	0	0	0
GREEN LAKE COUNTY	02/05/2004	0	0	0	0
GREEN LAKE COUNTY	02/14/2008	0	0	0	0

BLIZZARD

There were 3 events reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	02/24/2007	0	0	0	0
GREEN LAKE COUNTY	12/11/2010	0	0	0	0
GREEN LAKE COUNTY	12/20/2012	0	0	0	0

ICE STORM

There was 1 event reported over the 25-year period from 1/1/2000 – 12/31/2024.

<i>Location</i>	<i>Date</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>
GREEN LAKE COUNTY	04/04/2003	0	0	0	0

Appendix C: Plan Adoption

This plan has been adopted by Green Lake County and the following municipal bodies, including the Cities of Berlin, Green Lake, Markesan, and Princeton; the Villages of Kingston and Marquette; and the Towns of Berlin, Brooklyn, Kingston, Manchester, Princeton, and Seneca. The Towns of Green Lake, Mackford, Marquette, and St. Marie have not individually adopted the plan but, as towns, are considered under the county's adoption. Scanned copies of those municipalities that adopted this plan follow.

Appendix D: Report on Previous Mitigation Strategies

Hazard Type	Mitigation Measures	Report on Previous Mitigation Strategies						Comments
		Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	
All Hazards	Comprehensive Plan Implementation	~\$2,000	City of Berlin Zoning Office; City of Princeton Plan Commission City of Green Lake Plan Commission and City Council	Ongoing	High Medium Medium	CI Berlin CI Princeton CI Green Lake	Zoning Ordinances, Zoning Department Staff using municipal budget dollars	Plans are current and will be continually reviewed and consulted as development continues over its 10-year life cycle. <i>Will carry forward.</i>
	Continue to promote the increased use of National Oceanic and Atmospheric Administration (NOAA) weather radios	~\$1,000 per entity	EM Dept. and Cities of Berlin, Green Lake, Markesan and Princeton EM Depts.	As grants available	High	Green Lake County and all municipalities within	Emergency Management Staff using department budget	<i>Will carry forward, adding Public Health and Sheriff's Department under Responsible Management.</i> GL County spends approximately \$9,800 annually on the Code Red reverse notification system.

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Continue to add/update preparedness links on governmental websites (e.g., ARC, FEMA, WEM) and publicize them to let citizens know about the information.	~\$1,000 per entity	EM Depts. (County and Cities of Green Lake and Markesan) with the assistance of the Clerks and IT.	Ongoing	Low	Green Lake County and all municipalities within	Governmental staff using county budget dollars	Will carry forward, adding that links will be reviewed/checked and updated as needed.
	Purchase and install three more weather data collection stations	~\$500	City of Markesan EM Dept.	On-going	Low	CI Markesan	EM Staff. As grants available.	The goals are to purchase web-enabled devices that share information with the National Weather Service as well as provide current information to citizens on city website. Will carry forward

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Upgrade area early warning sirens: - Markesan has 4 and 2 need replacing. - Siren for the Soldiers & Sailors City Park - Determine disposition of courthouse siren. - Municipal Emergency Siren	\$15K/ea-\$30K total	City of Markesan EM Dept.	2015	Medium – High	CI Markesan	As funding available	Will carry forward.
		\$15k	City of Markesan/Town of Green Lake	2018	Medium – High	CI Markesan, TN Green Lake	As funding available	Want one because of campground; Nothing has been done; will carry forward and change Project Timetable to 2030.
		Unknown	City of Green Lake	Ongoing	High	CI Green Lake	City staff using current budget	Continue maintaining the civil defense siren on the downtown courthouse or move to a new location if the courthouse is sold to a private developer. Will carry forward. It is there & it works.
		\$30,000	City of Princeton	2018	High	CI Princeton and immediate surrounding areas	City Annual budget	Siren is very old and new one will be able to be set off from a remote location. This is done and will be removed.
		Siren replaced	\$10,000	VI Kingston	2024	High	VI Kingston	City staff

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
	Looked at adding new siren	\$50,000	TN Kingston	2018	Medium	TN Kingston	City staff	Looked at a siren to cover the Amish community of Dalton, which is unincorporated. Nothing has been done; will carry forward and change Project Timetable to 2030.
	Bring Markesan School District & school bus companies from UHF to VHF band.	unknown	City of Markesan EM Dept., School Dists, Bus Companies	2018	Medium	CI Markesan	EM staff, as funding allows	For interoperability during school uses and during disaster, when resource may be used by communities. Nothing has been done; will carry forward and change Project Timetable to 2030
	Emergency Operations Manual	~\$500	City of Princeton	Ongoing	Low	CI Princeton	City staff using current annual budget	Annually review and update. Has been reviewed and updated, Will carry forward.
	8 new hand-held radios and one base station with newly required frequency	\$15,000	Berlin Utility	2 years	Medium/High	CI Berlin	Utility staff as funding is available	The goal is to have radios for all utility employees in an emergency situation. This has been completed and will be removed.
	Explore the purchase of emergency lighting equipment	\$80,000	Princeton EG	2018	Medium	CI Princeton or surrounding communities for mutual aid	Municipal Budget	As Princeton owns the Electric Utility, emergency lighting is needed when outages take place. Nothing has been done; will carry forward and change Project Timetable to 2030

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Drought and Dust Storms	County should be prepared to provide information to farmers (e.g., crop irrigation, crop insurance) during times of drought	~\$200	UW-Ext./FSA	As needed	Low	Green Lake County and all municipalities within	Covered by annual budget and UW-Ex/FSA staff	Done as needed and will be carried forward.
	Prepare/publicize water usage information for non-farm areas during drought	~\$500	Municipal Water Utilities	As needed	Low	Green Lake County and all municipalities within	Covered by annual budget and water utility staff	Done as needed and will be carried forward.

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Flooding and Dam Failure	*Continue floodplain ordinance outreach within the community and ensure that homeowners and builders follow floodplain regulations	~\$250	County and Municipal Zoning Offices	Continual	Medium	Green Lake County and all municipalities within	Covered by Annual Budget and zoning staff	As new residents come into the community/county, outreach is necessary. <i>Being completed as needed. Will carry forward.</i> With new floodplain maps effective, consult parcel boundaries on all projects Adopted February 2010. <i>Ongoing changes are being made as small-scale studies are being done. No large-scale changes are being proposed over the next 5 years. Will carry forward, removing the reference to the 2010 adoption.</i> City of Berlin: Floodplain ordinance was adopted in present DNR/FEMA format

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Mapping: *Update GIS data collection and incorporation on schedule with the "Green Lake Land Information Plan"	Unknown	Land Use Planning & Zoning Dept. and County Leaders	As funds are available	High	Green Lake County and all municipalities within	Annual budget dollars used by zoning staff for projects	The Green Lake Land Information Plan 2016-2018 ²⁰¹ describes the data available and the updating schedule. <i>There is a new plan for 2025-2027; and another new plan for 2028-2030 will occur in the new plan period. Done on 3-year cycles. Will carry forward, updating the footnote/link and the referenced years.</i>
	*Apply to FEMA for a LOMA to incorporate FEMA compliant 1-foot LIDAR information							The county currently has 2' LIDAR mapping and plans to upgrade to 1' in the next flight, scheduled for 2020 for an estimated \$100,000 cost. Will require new panels to be printed. <i>This was completed in 2020. Another LIDAR flight is scheduled for 2027. Will be carried forward, updating to 2027, \$150,000 cost, and 1' intervals. The reference to LOMA will also be removed.</i>
	*Contract with aerial photography company "fly-overs" during 1st							Useful tool in determining level of damage and mitigating areas of concern. <i>Was not completed, will carry forward.</i>
201	http://www.gvsd.org/landinfo/plan20162018.pdf							

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Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Look for acceptable (environmentally, socially, cost-beneficial, politically, etc.), permanent solutions for removing water from flood-prone areas. Seek out funding sources (grants) to execute solutions.	~\$500	Elected officials	Ongoing	High	Green Lake County and all municipalities within	Covered by annual budget in elected official conferences	Some of the potential solutions may include acquisitions, demolitions, floodproofing or moving water to surface streams. Will carry forward.
	*Advise the public of available governmental programs and information, including the NFIP, as it relates to flood issues	~\$500	Zoning	Ongoing	Low	Green Lake County and all municipalities within	Covered by Annual budget; CDBG EAP funding. Use zoning staff	Done as needed, will carry forward.
	Riverbank improvements Downtown area. Franklin Street Bridge north to Pedestrian Bridge	\$1.7 million	City of Berlin	2018	Medium	CI Berlin	As funds become available or Special assessment policy	Implement the Waterfront Improvement project as adopted by Council in 2009. No funding available. Nothing has been done; will carry forward and change Project Timetable to 2030.

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Stormwater Retention Ponds – North Business Park	\$350,000	City Council	2018	High	CI Berlin	As funds become available or Special assessment policy	Do a stormwater regional detention basis survey for North Business Park and Implement the development of it. No funding available. Nothing has been done; will carry forward and change Project Timetable to 2030.
	*Southwest Drainage District. Create an area Wide drainage system to prevent flooding of private property	~\$500,000 (\$215,913 plus property acquisition)	City of Berlin	When funding is available	Medium	CI Berlin	As grants or funding become available or Special assessment policy	An initial study was made to determine the affect storm water/run-off has on this area and means to correct the problem A potential solution is to create waterways and ditches to channel water to prevent sheeting across many properties. No funding available, will carry forward.
	Shorewall improvements – Riverside Park	\$500,000	City of Berlin	When funding is available	Medium	CI Berlin	As grants or funding become available – DNR funding sources	No funding available, will carry forward.

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Berlin Foundry Shorewall – riverbank improvements	\$750,000	Private	When funding is available	Medium	CI Berlin	As public facilities or economic development grants become available – CDBG PF for Economic Development	Privately owned, this foundry is set right on the banks of the river and has flooding through their buildings during times of high water. Measures to limit run-off into the river is important. <i>No funding available, will carry forward.</i>
	*Explore feasibility of purchasing properties along Dock Street	\$175,000	City of Berlin	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	The structures are storage facilities which may receive some damage in times of flooding however could be acquired and removed. <i>No funding available, will carry forward.</i>

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Northeast Drainage District. Create an area-wide drainage system to prevent flooding of private property	\$495,900	City of Berlin	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	An ongoing project for 10 years, some steps have been taken for implementation however full completion of the project has not taken place yet. A potential solution is to create waterways and ditches to channel water to prevent sheeting across many properties. <i>No funding available, will carry forward.</i>
	Address flooding and roadway Repairs associated with West & East Marquette St. Preliminary solution is to increase storm sewer size	\$1,184,105	City of Berlin	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	Rain events greater than a 10-yr. storm event result in street flooding. <i>No funding available, will carry forward.</i>

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Explore flooding problem on Water Street between Cumberland Street to E Noyes Street to stop flooding into homes.	Cost to be determined	City of Berlin	When funding is available	High	CI Berlin	As grant funds become available or Special assessment policy	The goal would be to prevent loss of personal property and business loss from flooding. Will carry forward. Street was reconstructed in 2022 to protect sanitary system but does not yet stop home flooding. Some funding has been applied but additional measures are needed to completely mitigate the problem.
	Install Screen before Cumberland lift Station to prevent rags from clogging pumps in high-flow events	\$250,000	Berlin Utility	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	The goal is to prevent rags from getting into the wet well and clogging up pumps during floods or wet weather events, thus allowing employees to do other essential work. Not funded yet – carry forward.

Appendix D: Report on Previous Mitigation Strategies

Report on Previous Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Install new sanitary sewer main on East and West Marquette St. from Center to Water St this is about 4500 ft. plus the intersections	\$600,000	Berlin Utility	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	The goal is to stop inflow and infiltration during flooding and heavy rain events. This sewer is a converted storm sewer and has many problems. This should be done in conjunction with a storm sewer program on the same street. A CDBG grant was received with total project costs just under \$3.9M. The project was administered by Kunkel Engineering Group. Project Title: 2021 Street, Utilities and Pedestrian Bridge Reconstruction Project. Brief Project Description: Sanitary sewer/water main replacements on Water St & Park Ave & ped bridge replacement. Project was completed during the last hazard mitigation plan period, funded as part of a larger grant project. This strategy will be removed

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
	Continue to monitor lake level readings at Green Lake Upper Dam	~\$500	City of Green Lake Public Works Dept.	Ongoing	High	CI Green Lake	Covered by annual budget and current staff	Currently readings are taken daily Monday through Friday when ice is not present. Ongoing and will carry forward.
	Complete a wellhead protection plan for the city.	Cost to be determined	City of Green Lake	2024	Medium	CI Green Lake	Covered by annual budget and current staff	Have plan and process will complete in 2025. Will be removed.
	Explore flooding problem at Moorland and John St to stop flooding of Moorland apartments	Cost to be determined	City of Markesan	When funding is available	High	CI Markesan & Property owners	As grant funds become available or Special assessment policy	Prevent personal property loss. A bigger culvert was put in and some problems were mitigated; there may be issues in the future but for now this has been accomplished. Will be removed.
	*Water retention area for properties on Manchester St. west of Margaret St.	Cost to be determined	City of Markesan	When funding is available	High	CI Markesan & Property owners	As grant funds become available or Special assessment policy	Prevent personal property loss. Will carry forward.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Buyouts/ Elevations: ▪ Business located at 450 N Margaret/Relocation ▪ Residence/garage at 95 S. Bridge	Cost to be determined	Zoning and City of Markesan	2018	Medium	CI Markesan & Property owners	As grant funds become available or Special assessment policy	Prevent personal property loss. FEMA's PDM & FMA grants are potential funding sources for buyout. <i>Nothing has been done; will carry forward and change Project Timetable to 2030.</i>
	Install shut-offs in sewer lines (laterals) in the City of Markesan to keep water from flooding 20-30 properties.	~\$1,000 per unit (1 valve/bldg.)	City of Markesan Wastewater Treatment	When funding is available	Med-High	CI Markesan	As grant funds become available or Special assessment policy	Installing these valves would affect ~100 structures, many of which house senior citizens and small, local businesses. <i>This was completed during the last project period and will be removed.</i>
	Work with County & State DOT to Upgrade culvert at State HWY 44 and E. Vista and re-ditch 44 west of Margaret St	Covered by Dept. Annual budget	City of Markesan Green Lake County DOT	When funding is available	High	CI Markesan; CI Kingston & TNs Manchester	As grant funds become available or Special assessment policy	<i>Road is being done summer 2025. Will carry forward.</i>
	Work with County & State DOT to clean trees and debris out of Grand River west side of City	Cost to be determined	City of Markesan Green Lake County DOT	When funding is available	Med-High	CI Markesan; CI Kingston & TNs Manchester	As grant funds become available or Special assessment policy	<i>Ongoing maintenance, done as needed. Will carry forward.</i>

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Explore options for erosion mitigation projects	As grants available (\$5,000)	City of Princeton	5 years	Low-Medium	CI Princeton	As grant funds become available	Ongoing. Will carry forward.
	Riverbank Stabilization – Water Street	\$600,000	City of Princeton	When funding is available	Medium	CI Princeton	Annual budgets or as grant funding becomes available	Elimination of flooding and property damage Ongoing. Will carry forward.
	*Conduct a floodplain study at the confluence of the Fox River, White River, Puchyan River and Sucker Creek.	To be determined	Land Use Planning & Zoning Dept.	5 years	Low	TNs Seneca and St. Marie	Annual budget dollars used by zoning staff for projects	Approximate floodplain area on FEMA maps. With study safe development of the area could be accomplished. Study has not been done but if funding allows, it will be completed in the next plan period. Will carry forward.
	*Work with the Town of Marquette and Drager Road property owners to elevate Drager Rd. above RFE.	To be determined	Land Use Planning & Zoning Dept.	5 years	Low	TN Marquette	Annual budget dollars used by zoning staff for projects	With contiguous dry land access, the POs can elevate their homes and remove them from floodplain. No change. Will carry forward.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Work with the Town of Marquette and Marine Drive property owners to elevate Marine Dr. above RFE.	To be determined	Land Use Planning & Zoning Dept.	5 years	Low	TN Marquette	Annual budget dollars used by zoning staff for projects	With contiguous dry land access, the POs can elevate their homes and remove them from floodplain. <i>No change. Will carry forward.</i>
	*Work with the Town of Princeton and property owners along Kuharski Rd to elevate Kuharski road above RFE.	To be determined	Land Use Planning & Zoning Dept.	5 years	Low	TN Princeton	Annual budget dollars used by zoning staff for projects	With contiguous dry land access, the POs can elevate their homes and remove them from Floodplain. This area flooded in the Sept. 2018 flooding. The road is the only access to approximately 8 homes. <i>Will be removed. Road was elevated but not above RFE. However, it is at an elevation that the town feels comfortable with.</i>
	*Explore hazard mitigation opportunities (i.e., buyout or elevation) on Fox River Lane as well as Birch Lane.	To be determined	Land Use Planning & Zoning Dept.	5 years	Low	TN Princeton	Annual budget dollars used by zoning staff for projects	Several homes were completely surrounded by flood waters in June of 2008. <i>No change. Will carry forward.</i>

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Forest and Wildfires	Continue working on shoreline restoration and lake clearing projects	Covered by annual budget	Village of Kingston	Ongoing	Medium	VI Kingston	Annual budget dollars used by zoning staff for projects	Ongoing. Rip-rap was placed along the shoreline. Will carry forward.
	*Explore hazard mitigation opportunities (i.e., buyout or elevation) in the Village of Marquette.	To be determined	Land Use Planning & Zoning Dept. and Village Leaders	Ongoing	Medium	VI Marquette	Annual budget dollars used by zoning staff for projects	Several homes were completely surrounded by flood waters in June of 2008. Will carry forward. Ordinance was strengthened & approved. New construction has to follow the ordinance and building regulations, so would be protected. Cannot mitigate the lake. The Village would seek funding when flooding does occur.
	Continue to provide outreach efforts to homeowners on protecting homes and structures from wildfires and on obtaining the proper burn permits	~\$1,000	Local Fire Departments	Ongoing	Low	Green Lake County and all municipalities within	Annual budget dollars used by fire department staff for projects	This is done as needed and will be carried forward.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Landslide	Explore the possibility of creating dry hydrants for filling trucks for fires	To be determined	Kingston Fire Dept.	2013	Medium	VI Kingston	As grant funds become available or Special assessment policy	There are currently no other dry hydrant projects in the county. Will be carried forward, updating the project timetable to 2030.
	Provide ample training for volunteer fire fighters for larger wildfires	Costs vary	Local Fire Departments, EM Dept.	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by fire department staff for projects. DNR statewide training grants for firefighters.	Annual training is provided in spring by the WI DNR for county firefighters. Closest DNR office is Montello (Marquette Co.). This occurs annually and will be carried forward.
	Evaluate areas with known karst geological features for new fissures. Ensure that direct access to the water table (i.e., without filtering through the soil) is not opened in a fissure.	To be determined	Land Conservation	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by LCD staff for projects	There are Karst situations south of Green Lake. Will be carried forward.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Severe Temperatures	Continue public informational campaigns about severe weather on the website and during Winter and Heat Awareness Weeks.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Done in annual campaigns in Fall and Spring. Continue public informational campaigns about severe weather on the website and during Winter and Heat Awareness Weeks. <i>This is done annually in November and April. Will carry forward.</i>
	Continue to provide sheltering services to citizens in need during severe temperatures.	Costs vary	Human Services with EM assistance	As needed	High	Green Lake County and all municipalities within	Annual budget dollars used by EM and HHS staff for projects	A protocol exists and is used during severe temperature outbreaks to open community shelters. <i>There has been no need for this over the past five years but will direct people with social vulnerabilities to spaces with cooling. Have given out space heaters in the past during cold weather. Will carry forward, changing the Responsible Management to Health and Human Services with EM support.</i>

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
Storms: Hail	Place hailstorm safety materials in county display rack, on the website and during severe weather week.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Materials have been provided as needed and municipalities have amplified the county messages. Will carry forward.
	Provide information regarding the purchase of crop insurance	~\$250	UW Ext	Ongoing	Low	Green Lake County and all municipalities within	Annual budget dollars used by UW-Ext staff for projects	Materials and information are available if needed. Will carry forward.
Storms: Lightning	Place lightning safety materials in county display rack, on the website and during severe weather week.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Materials and information are available if needed. Will carry forward.
	Provide information regarding the use of fire-resistant materials and surge protectors.	~\$250	EM Dept	Ongoing	Low	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Done as needed. The 9-1-1 center was upgraded in 2023 to manage the surge. In 2010 the government center was built with back-up power, power surge and grounding – these will be incorporated moving forward (i.e., if a new highway facility is built). Will carry forward.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Storms: Thunderstorm	Update the utility control system (SCADA), which could be made inoperable by a lightning strike or excessive rainfall.	Unknown	Princeton Utilities	5 years	High	CI Princeton	Capital improvements budget	The system is very old and cannot be serviced due to advanced age. Failed in 2016 but were able to get back-ups for critical buildings. <i>Will carry forward.</i>
	Place thunderstorm safety materials in county display rack, on the website and during severe weather week.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	<i>Materials and information are available if needed. Will carry forward.</i>
	Work with local fair/festival boards, as requested, to create emergency plans in case of bad weather.	~\$2500	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	EM regularly works with the county fair board and other large events. The EM office also completed an emergency plan for the fairgrounds. <i>The plan was updated in 2022 with the Sheriff's Department. Will carry forward.</i>

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
Storms: Tornadoes and High Winds	Explore the feasibility of constructing tornado shelters in areas where deficient especially in mobile home parks.	Costs vary	EM Dept. and City of Markesan EM	Ongoing	Medium	CI Markesan & TN Green Lake	As grant funds become available or Special assessment policy. Grant options include CDBGs and WEM HazMit, when available.	Nothing was done during the last plan period due to lack of funding / no grant received. Will be carried forward, adding campgrounds to the first column (there are a lot of them).
	Explore the feasibility of increasing the wind resistance of the roofs of community storm shelters.	~\$500	EM Dept	As grants available	Medium	CI Markesan & TN Green Lake	Annual budget dollars used by EM staff for projects	Nothing was done during the last plan period due to lack of funding / no grant received. Will carry forward, seeking support during the upcoming plan period. Adding Ongoing to the Project Timetable.
	Promote tornado awareness, including safety measures.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Done during tornado awareness week in April. Information will be included on the website for homes, schools and business safety measures. Completed annually in April and will carry forward.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
Storms: Winter	Promote winter hazards awareness, including home and travel safety measures (including website.)	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Done during winter weather awareness week in November. Completed annually in November and will carry forward.
Utility Failure	There are 3 lift-station locations, none of which have generator back up. The city would like to install three permanent generators.	\$35-40K/unit for permanent generators	City of Markesan Wastewater Treatment	2018	High	CI Markesan	As grant funds become available.	Have external panels at each of the lift stations. Permanent generators were not obtained during the last plan period. Will carry forward with 2030 timeframe.
	Install back up power at Well # 5	\$300,000	Berlin Utility	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy.	The goal is to have backup power to more than one Well in the City Berlin has 3 Wells. They have panels on all three wells and have mobile generator capacity. Will carry forward, adding in the first column that they are looking for permanent generators for at least one well.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
	Install back up power at water towers	\$100,000 for both	Berlin Utility	When funding is available	Medium/ High	CI Berlin	As grant funds become available or Special assessment policy.	The goal is to have backup power to the Towers. The towers control the pumps under emergency conditions, and also our SCADA system for the Water & Sewer Systems. <i>No grants have been available. Will carry forward.</i>
	Install backup power at wells	\$200,000	City of Markesan Utility	When funding is available	Medium	CI Markesan	As grant funds become available or Special assessment policy.	To have backup power to well in the city for fire suppression. <i>No funding has been available. Will carry forward.</i>
	Install backup power at water tower	\$100,000	City of Markesan Utility	When funding is available	Medium/ High	CI Markesan	As grant funds become available or Special assessment policy.	The goal is to have backup power to the Towers. The towers control the pumps under emergency conditions, and also our SCADA system for the Water & Sewer Systems. <i>No funding has been available. Will carry forward.</i>

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Provide and install portable backup generator Webster Street	\$50,000	City of Berlin Utility	When funding is available	Medium/ High	CI Berlin	As grant funds become available or special assessment policy	The goal is to have back-up power for remote locations Portable panel was installed. Will be removed.
	Provide and install permanent backup generator Cumberland Street	\$80,000	City of Berlin Utility	When funding is available	Medium/ High	CI Berlin	As grant funds become available or special assessment policy	These locations have panels for portable systems. The goal is to have permanent backup power for remote locations. Will carry forward.
	Provide and install portable backup generators for three lift stations	\$75,000 each or \$225,000 total	City of Princeton Utility	When funding is available	Medium/ High	CI Princeton	As grant funding becomes available or through utility revenue	The goal is to have back-up power for all remote locations This has been completed and will be removed.
	Consider backup power needs.	Costs vary \$135,000 UASI grant for purchased generator	EM Dept and Health and Human Services Dept	Ongoing	High	Green Lake County and all municipalities within	As grant funds become available or Special assessment policy.	Currently emergency shelters only have emergency back-up power (e.g., to exit lights), which is not adequate to fulfill evacuee needs. This was not completed during the last plan period and will be carried forward.

EM Dept = Green Lake County Emergency Management Department
 UW Ext = University of Wisconsin – Green Lake County Extension Office
 * Designates an element that supports the NFIP.

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Hazard Type	Mitigation Measures	Summary of Mitigation Strategies						Comments
		Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	
All Hazards	Comprehensive Plan Implementation	~\$2,000	City of Berlin Zoning Office; City of Princeton Plan Commission City of Green Lake Plan Commission and City Council	Ongoing	High Medium Medium	CI Berlin CI Princeton CI Green Lake	Zoning Ordinances, Zoning Department Staff using municipal budget dollars	Plans are current and will be continually reviewed and consulted as development continues over its 10-year life cycle.
	Continue to promote the increased use of National Oceanic and Atmospheric Administration (NOAA) weather radios	~\$1,000 per entity	EM Dept., Public Health and Sheriff's Dept.; and Cities of Berlin, Green Lake, Markesan and Princeton EM Depts.	As grants available	High	Green Lake County and all municipalities within	Emergency Management Staff using department budget	The county spends approximately \$9,800 annually on the Code Red reverse notification system.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Continue to add/update preparedness links on governmental websites (e.g., ARC, FEMA, WEM) and publicize them to let citizens know about the information.	~\$1,000 per entity	EM Depts. (County and Cities of Green Lake and Markesan) with the assistance of the Clerks and IT.	Ongoing	Low	Green Lake County and all municipalities within	Governmental staff using county budget dollars	Links will be reviewed/checked and updated as needed.
	Purchase and install three more weather data collection stations	~\$500	City of Markesan EM Dept.	On-going	Low	CI Markesan	EM Staff. As grants available.	The goals are to purchase web-enabled devices that share information with the National Weather Service as well as provide current information to citizens on the city website.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Upgrade area early warning sirens: - Markesan has 4 and 2 need replacing. - Siren for the Soldiers & Sailors City Park - Determine disposition of courthouse siren.	\$15K/ea-\$30K total	City of Markesan EM Dept.	2030	Medium – High	CI Markesan	As funding available	
		\$15k	City of Markesan/Town of Green Lake	2030	Medium – High	CI Markesan, TN Green Lake	As funding available	Want one because of campground.
		Unknown	City of Green Lake	Ongoing	High	CI Green Lake	City staff using current budget	Continue maintaining the civil defense siren on the downtown courthouse or move to a new location if the courthouse is sold to a private developer.
	Looked at adding new siren	\$50,000	TN Kingston	2030	Medium	TN Kingston	City staff	Looked at a siren to cover the Amish community of Dalton, which is unincorporated.
	Bring Markesan School District & school bus companies from UHF to VHF band.	unknown	City of Markesan EM Dept., School Dists, Bus Companies	2030	Medium	CI Markesan	EM staff, as funding allows	For interoperability during school uses and during disaster, when resource may be used by communities.
	Emergency Operations Manual	≈\$500	City of Princeton	Ongoing	Low	CI Princeton	City staff using current annual budget	Annually review and update.
	Explore the purchase of emergency lighting equipment	\$80,000	Princeton EG	2030	Medium	CI Princeton or surrounding communities for mutual aid	Municipal Budget	As Princeton owns the Electric Utility, emergency lighting is needed when outages take place.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
Drought and Dust Storms	County should be prepared to provide information to farmers (e.g., crop irrigation, crop insurance) during times of drought	~\$200	UW-Ext./FSA	As needed	Low	Green Lake County and all municipalities within	Covered by annual budget and UW-Ex/FSA staff	
	Prepare/publicize water usage information for non-farm areas during drought	~\$500	Municipal Water Utilities	As needed	Low	Green Lake County and all municipalities within	Covered by annual budget and water utility staff	
Flooding and Dam Failure	*Continue floodplain ordinance outreach within the community and ensure that homeowners and builders follow floodplain regulations	~\$250	County and Municipal Zoning Offices	Continual	Medium	Green Lake County and all municipalities within	Covered by Annual Budget and zoning staff	As new residents come into the community/county, outreach is necessary. With new floodplain maps effective, consult parcel boundaries on all projects. Ongoing changes are being made as small-scale studies are being done. No large-scale changes are being proposed over the next 5 years. City of Berlin: Floodplain ordinance was adopted in present DNR/FEMA format.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
	*Mapping: *Update GIS data collection and incorporation on schedule with the "Green Lake Land Information Plan"	Unknown	Land Use Planning & Zoning Dept. and County Leaders	As funds are available	High	Green Lake County and all municipalities within	Annual budget dollars used by zoning staff for projects	The Green Lake Land Information Plan 2025-2027 describes the data available and the updating schedule. <i>There will be another new plan for 2028-2030, which will occur in the new plan period. Done on 3-year cycles.</i>
	*Apply to FEMA for compliant 1-foot LIDAR information							The county currently has 2' LIDAR mapping and plans to upgrade to 1' in the next flight, scheduled for 2027 for an estimated \$150,000 cost. Will require new panels to be printed.
	*Contract with aerial photography company "fly-overs" during 1% chance flood events (oblique).							Useful tool in determining level of damage and mitigating areas of concern.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Look for acceptable (environmentally, socially, cost-beneficial, politically, etc.), permanent solutions for removing water from flood-prone areas. Seek out funding sources (grants) to execute solutions.	~\$500	Elected officials	Ongoing	High	Green Lake County and all municipalities within	Covered by annual budget in elected official conferences	Some of the potential solutions may include acquisitions, demolitions, floodproofing or moving water to surface streams.
	*Advise the public of available governmental programs and information, including the NFIP, as it relates to flood issues	~\$500	Zoning	Ongoing	Low	Green Lake County and all municipalities within	Covered by Annual budget; CDBG EAP funding. Use zoning staff	
	Riverbank improvements Downtown area. Franklin Street Bridge north to Pedestrian Bridge	\$1.7 million	City of Berlin	2030	Medium	CI Berlin	As funds become available or Special assessment policy	Implement the Waterfront Improvement project as adopted by Council in 2009.
	*Stormwater Retention Ponds – North Business Park	\$350,000	City Council	2030	High	CI Berlin	As funds become available or Special assessment policy	Do a stormwater regional detention basis survey for North Business Park and Implement the development of it.

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	*Southwest Drainage District. Create an area Wide drainage system to prevent flooding of private property	~\$500,000 (\$215,913 plus property acquisition)	City of Berlin	When funding is available	Medium	CI Berlin	As grants or funding become available or Special assessment policy	An initial study was made to determine the affect storm water/run-off has on this area and means to correct the problem A potential solution is to create waterways and ditches to channel water to prevent sheeting across many properties.
	Shorewall improvements – Riverside park	\$500,000	City of Berlin	When funding is available	Medium	CI Berlin	As grants or funding become available – DNR funding sources	
	Berlin Foundry Shorewall – riverbank improvements	\$750,000	Private	When funding is available	Medium	CI Berlin	As public facilities or economic development grants become available – CDBG PF for Economic Development	Privately owned, this foundry is set right on the banks of the river and has flooding through their buildings during times of high water. Measures to limit run-off into the river is important.
	*Explore feasibility of purchasing properties along Dock Street	\$175,000	City of Berlin	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	The structures are storage facilities which may receive some damage in times of flooding however could be acquired and removed.

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	*Northeast Drainage District. Create an area-wide drainage system to prevent flooding of private property	\$495,900	City of Berlin	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	An ongoing project for 10 years, some steps have been taken for implementation however full completion of the project has not taken place yet. A potential solution is to create waterways and ditches to channel water to prevent sheeting across many properties.
	Address flooding and roadway Repairs associated with West & East Marquette St. Preliminary solution is to increase storm sewer size.	\$1,184,105	City of Berlin	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	Rain events greater than a 10-yr. storm event result in street flooding.

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	Explore flooding problem on Water Street between Cumberland Street to E Noyes Street to stop flooding into homes.	Cost to be determined	City of Berlin	When funding is available	High	CI Berlin	As grant funds become available or Special assessment policy	The goal would be to prevent loss of personal property and business loss from flooding. Street was reconstructed in 2022 to protect sanitary system but does not yet stop home flooding. Some funding has been applied but additional measures are needed to completely mitigate the problem.
	Install Screen before Cumberland lift Station to prevent rags from clogging pumps in high-flow events	\$250,000	Berlin Utility	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy	The goal is to prevent rags from getting into the wet well and clogging up pumps during floods or wet weather events, thus allowing employees to do other essential work.
	Continue to monitor lake level readings at Green Lake Upper Dam	~\$500	City of Green Lake Public Works Dept.	Ongoing	High	CI Green Lake	Covered by annual budget and current staff	Currently readings are taken daily Monday through Friday when ice is not present.
	*Water retention area for properties on Manchester St. west of Margaret St.	Cost to be determined	City of Markesan	When funding is available	High	CI Markesan & Property owners	As grant funds become available or Special assessment policy	Prevent personal property loss.

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Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Buyouts/ Elevations: ▪ Business located at 450 N Margaret/Relocation ▪ Residence/garage at 95 S. Bridge	Cost to be determined	Zoning and City of Markesan	2030	Medium	CI Markesan & Property owners	As grant funds become available or Special assessment policy	Prevent personal property loss. FEMA's PDM & FMA grants are potential funding sources for buyout.
	Work with County & State DOT to Upgrade culvert at State HWY 44 and E. Vista and re-ditch 44 west of Margaret St	Covered by Dept. Annual budget	City of Markesan Green Lake County DOT	When funding is available	High	CI Markesan; CI Kingston & TNs Kingston & Manchester	As grant funds become available or Special assessment policy	Road is being done summer 2025.
	Work with County & State DOT to clean trees and debris out of Grand River west side of City	Cost to be determined	City of Markesan Green Lake County DOT	When funding is available	Med-High	CI Markesan; CI Kingston & TNs Kingston & Manchester	As grant funds become available or Special assessment policy	Ongoing maintenance.
	Explore options for erosion mitigation projects Riverbank Stabilization – Water Street	As grants available (\$5,000) \$600,000	City of Princeton	Ongoing	Low-Medium	CI Princeton	As grant funds become available Annual budgets or as grant funding becomes available	Elimination of flooding and property damage

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Conduct a floodplain study at the confluence of the Fox River, White River, Puchyan River and Sucker Creek.	To be determined	Land Use Planning & Zoning Dept.	2025-2030	Low	TNs Seneca and St. Marie	Annual budget dollars used by zoning staff for projects	Approximate floodplain area on FEMA maps. With study safe development of the area could be accomplished. Will be completed in this plan period if funding allows.
	*Work with the Town of Marquette and Drager Road property owners to elevate Drager Rd. above RFE.	To be determined	Land Use Planning & Zoning Dept.	2025-2030	Low	TN Marquette	Annual budget dollars used by zoning staff for projects	With contiguous dry land access, the POs can elevate their homes and remove them from floodplain.
	*Work with the Town of Marquette and Marine Drive property owners to elevate Marine Dr. above RFE.	To be determined	Land Use Planning & Zoning Dept.	2025-2030	Low	TN Marquette	Annual budget dollars used by zoning staff for projects	With contiguous dry land access, the POs can elevate their homes and remove them from floodplain.
	*Explore hazard mitigation opportunities (i.e., buyout or elevation) on Fox River Lane as well as Birch Lane.	To be determined	Land Use Planning & Zoning Dept.	2025-2030	Low	TN Princeton	Annual budget dollars used by zoning staff for projects	Several homes were completely surrounded by flood waters in June of 2008.
	Continue working on shoreline restoration and lake clearing projects	Covered by annual budget	Village of Kingston	Ongoing	Medium	VI Kingston	Annual budget dollars used by zoning staff for projects	Rip-rap was placed along the shoreline.

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	*Explore hazard mitigation opportunities (i.e., buyout or elevation) in the Village of Marquette.	To be determined	Land Use Planning & Zoning Dept. and Village Leaders	Ongoing	Medium	VI Marquette	Annual budget dollars used by zoning staff for projects	Several homes were completely surrounded by flood waters in June of 2008. The ordinance was strengthened and approved. New construction has to follow the ordinance and building regulations, so it would be protected. Cannot mitigate the lake. The Village will seek funding when flooding does occur.
Fog	Conduct public alert, warning, and ongoing education to mitigate the driving hazard caused by fog.	Covered by annual budget	Law enforcement agencies, Emergency Management	Ongoing, as needed	Low	Green Lake County and all municipalities within	Annual budget dollars used by LE and EM staff for projects	
Forest and Wildfires	Continue to provide outreach efforts to homeowners on protecting homes and structures from wildfires and on obtaining the proper burn permits	~\$1,000	Local Fire Departments	Ongoing	Low	Green Lake County and all municipalities within	Annual budget dollars used by fire department staff for projects	

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Landslide	Explore the possibility of creating dry hydrants for filling trucks for fires	To be determined	Kingston Fire Dept.	2030	Medium	VI Kingston	As grant funds become available or Special assessment policy	There are currently no other dry hydrant projects in the county.
	Provide ample training for volunteer fire fighters for larger wildfires	Costs vary	Local Fire Departments, EM Dept.	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by fire department staff for projects. DNR statewide training grants for firefighters.	Annual training is provided in spring by the WI DNR for county firefighters. Closest DNR office is Montello (Marquette Co.).
	Evaluate areas with known karst geological features for new fissures. Ensure that direct access to the water table (i.e., without filtering through the soil) is not opened in a fissure.	To be determined	Land Conservation	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by LCD staff for projects	There are Karst situations south of Green Lake.
Severe Temperatures	Continue public informational campaigns about severe weather on the website and during Winter and Heat Awareness Weeks.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Continue public informational campaigns about severe weather during annual campaigns in November and April during Winter and Heat Awareness weeks.

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
	Continue to provide sheltering services to citizens in need during severe temperatures.	Costs vary	Health and Human Services with EM support	As needed	High	Green Lake County and all municipalities within	Annual budget dollars used by EM and HHS staff for projects	A protocol exists and is used during severe temperature outbreaks to open community shelters. There has been no need for this over the past five years but will direct people with social vulnerabilities to spaces with cooling. Have given out space heaters in the past during cold weather.
Storms: Hail	Place hailstorm safety materials in county display rack, on the website and during severe weather week.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Materials have been provided as needed and municipalities have amplified the county messages.
	Provide information regarding the purchase of crop insurance	~\$250	UW Ext	Ongoing	Low	Green Lake County and all municipalities within	Annual budget dollars used by UW-Ext staff for projects	Materials and information are available if needed.
Storms: Lightning	Place lightning safety materials in county display rack, on the website and during severe weather week.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Materials and information are available if needed.

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Storms: Thunderstorm	Provide information regarding the use of fire-resistant materials and surge protectors.	~\$250	EM Dept	Ongoing	Low	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	The 9-1-1 center was upgraded in 2023 to manage the surge. In 2010 the government center was built with back-up power, power surge and grounding – these will be incorporated moving forward (i.e., if a new highway facility is built).
	Update the utility control system (SCADA), which could be made inoperable by a lightning strike or excessive rainfall.	Unknown	Princeton Utilities	2025-2030	High	CI Princeton	Capital improvements budget	The system is very old and cannot be serviced due to advanced age. Failed in 2016 but were able to get back-ups for critical buildings.
	Place thunderstorm safety materials in county display rack, on the website and during severe weather week.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Materials and information are available if needed.
	Work with local fair/festival boards, as requested, to create emergency plans in case of bad weather.	~\$2500	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	EM regularly works with the county fair board and other large events. The EM office also completed an emergency plan in 2022 with the Sheriff's Department for the fairgrounds.

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Storms: Tornadoes and High Winds	Explore the feasibility of constructing tornado shelters in areas where deficient especially in mobile home parks and campgrounds.	Costs vary	EM Dept. and City of Markesan EM	Ongoing	Medium	Cl Markesan & TN Green Lake	As grant funds become available or Special assessment policy. Grant options include CDBGs and WEM HazMit, when available.	Nothing was done during the last plan period due to lack of funding / no grant received.
	Explore the feasibility of increasing the wind resistance of the roofs of community storm shelters.	~\$500	EM Dept	As grants available / Ongoing	Medium	Cl Markesan & TN Green Lake	Annual budget dollars used by EM staff for projects	Nothing was done during the last plan period due to lack of funding / no grant received. Will seek support during the upcoming plan period.
	Promote tornado awareness, including safety measures.	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Done during tornado awareness week in April. Information will be included on the website for homes, schools and business safety measures.
Storms: Winter	Promote winter hazards awareness, including home and travel safety measures (including website.)	~\$250	EM Dept	Ongoing	Medium	Green Lake County and all municipalities within	Annual budget dollars used by EM staff for projects	Done during winter weather awareness week in November.

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefitting	Authorities, Policies, Programs or Resources	Comments
Utility Failure	There are 3 lift-station locations, none of which have generator back up. The city would like to install three permanent generators.	\$35-40K/unit for permanent generators	City of Markesan Wastewater Treatment	2030	High	CI Markesan	As grant funds become available.	Have external panels at each of the lift stations. Permanent generators were not obtained during the last plan period.
	Install back up power at Well # 5. Looking for permanent generators for at least one well.	\$300,000	Berlin Utility	When funding is available	Medium	CI Berlin	As grant funds become available or Special assessment policy.	The goal is to have backup power to more than one Well in the City Berlin has 3 Wells. They have panels on all three wells and have mobile generator capacity.
	Install back up power at water towers	\$100,000 for both	Berlin Utility	When funding is available	Medium/High	CI Berlin	As grant funds become available or Special assessment policy.	The goal is to have backup power to the Towers. The towers control the pumps under emergency conditions, and also our SCADA system for the Water & Sewer Systems.
	Install backup power at wells	\$200,000	City of Markesan Utility	When funding is available	Medium	CI Markesan	As grant funds become available or Special assessment policy.	To have backup power to well in the city for fire suppression.

Appendix E: Summary of Mitigation Strategies

Summary of Mitigation Strategies								
Hazard Type	Mitigation Measures	Costs of Project	Responsible Management	Project Timetable	Project Priority	Community(ies) Benefiting	Authorities, Policies, Programs or Resources	Comments
	Install backup power at water tower	\$100,000	City of Markesan Utility	When funding is available	Medium/High	CI Markesan	As grant funds become available or Special assessment policy.	The goal is to have backup power to the Towers. The towers control the pumps under emergency conditions, and also our SCADA system for the Water & Sewer Systems.
	Provide and install permanent backup generator Cumberland Street	\$80,000	City of Berlin Utility	When funding is available	Medium/High	CI Berlin	As grant funds become available or special assessment policy	These locations have panels for portable systems. The goal is to have permanent backup power for remote locations.
	There are 3 lift-station locations, none of which have generator back up. The city would like to install three permanent generators.	\$35-40K/unit for permanent generators	VI Kingston Wastewater Treatment	2030	High	VI Kingston	As grant funds become available.	
	Consider backup power needs.	Costs vary \$135,000 UASI grant for purchased generator	EM Dept and Health and Human Services Dept	Ongoing	High	Green Lake County and all municipalities within	As grant funds become available or Special assessment policy.	Currently emergency shelters only have emergency back-up power (e.g., to exit lights), which is not adequate to fulfill evacuee needs.

EM Dept = Green Lake County Emergency Management Department
 UW Ext = University of Wisconsin – Green Lake County Extension Office
 * Designates an element that supports the NFIP.

Appendix F: HAZUS Vulnerability Assessment ²⁰²

The following flood hazards were identified in the Green Lake's Flood Insurance Study prepared in 1976.

Green Lake County covers 354 square miles and contains 1,149 census blocks. There are over 8,000 households with a population of 19,105. Green Lake County consists of 5 cities, 2 villages, and 10 towns. There are an estimated 10,071 buildings in the region with a total building replacement value (excluding contents) of 1.66 billion dollars (2006 dollars). Approximately 87.11% of the buildings (and 75.94% of the building value) are associated with residential housing. (2000 Census Bureau Data).

The principal flood problems are due to stream overflow and wave runup. Riverine flooding is due primarily to overflows of the Fox and Grand Rivers. Although the majority of severe flooding along the Upper Fox River has occurred in the spring, floods have been recorded in all seasons of the year. These floods can occur entirely from rainfall, from rainfall accompanied by snowmelt, or from snowmelt alone.

Flood analysis for Green Lake was performed using HAZUS-MH MR3, released in July 2007. The bundled aggregated general building stock was updated to Dun & Bradstreet 2006. Building valuations were updated to R.S. Means 2006. Building counts based on census housing unit counts are available for RES1 (single-family dwellings) and RES2 (manufactured housing) instead of calculated building counts.

The site-specific inventory (specifically Schools, Hospitals, Fire Stations, Emergency Operation Centers, and Police Stations) was updated using the best available statewide information.

HAZUS-MH was used to generate the flood depth grid for a 100-year return period, calculated by clipping the USGS 30m DEM to the preliminary DFIRM boundary.

²⁰² Note that this HAZUS run is over ten years old but it is the most current run available. WEM plans to complete another run in, approximately 2020.

This map depicts the flood boundary from the HAZUS-MH analysis. The majority of flooding occurs along the Fox River and the Grand River.



HAZUS-MH Aggregate Loss Analysis

HAZUS-MH was used to estimate the damages for a 100-year flood event in Green Lake County. An estimated 78 buildings will be damaged, totaling \$17.3 million in building losses and \$43.9 million in total economic losses. The total estimated number of damaged buildings, total building losses, and estimated total economic losses are shown in the table below.

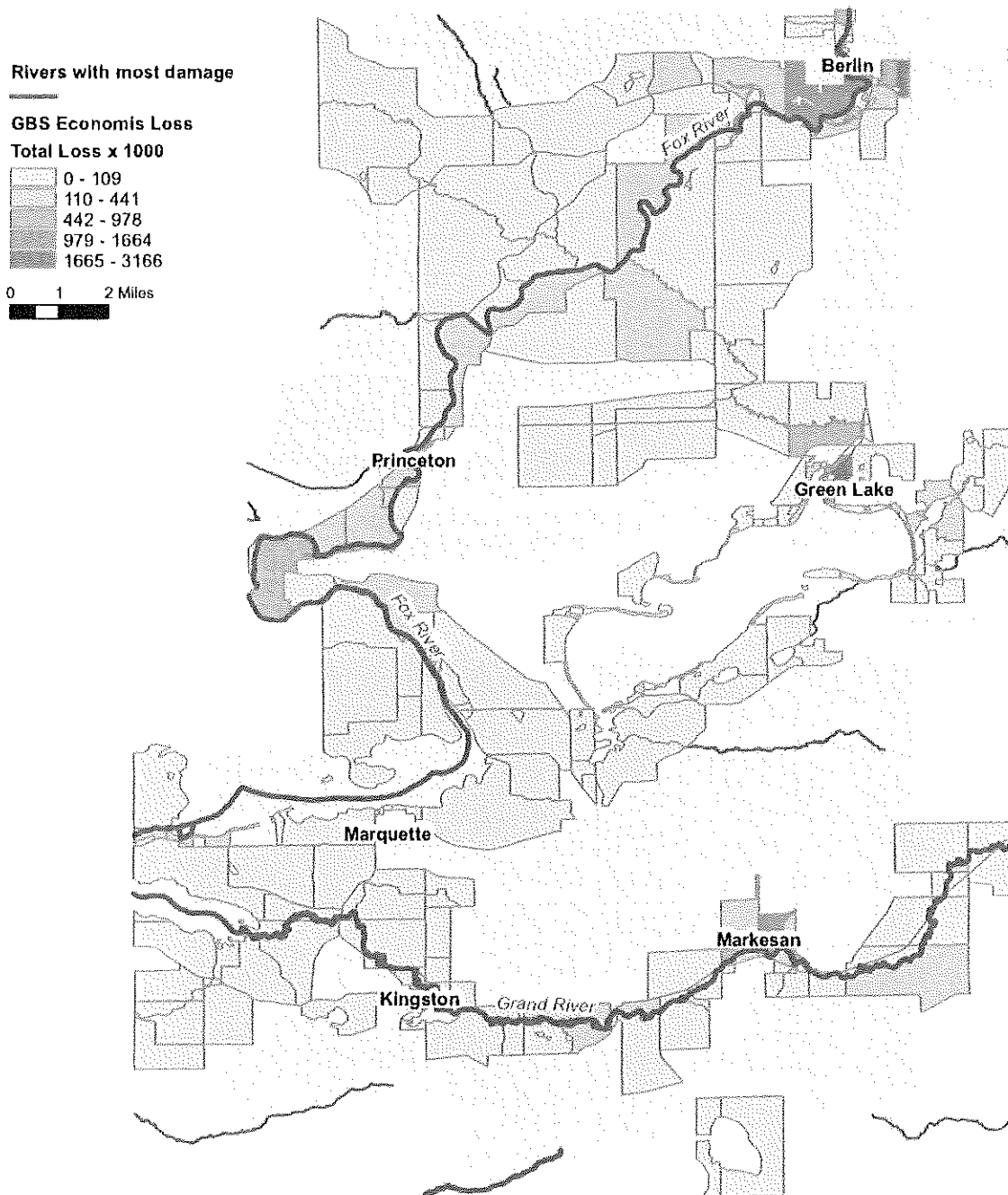
Green Lake County Total Economic Loss - 100-Year Flood

General Occupancy	Estimated Total Buildings	Total Damaged Buildings	Total Building Exposure X 1000	Total Economic Loss X 1000	Building Loss X 1000
Agricultural	1236	19	\$24,585	\$859	\$199
Commercial	49	0	\$232,191	\$11,973	\$2,676
Education	0	0	\$15,133	\$348	\$57
Government	6	0	\$16,612	\$895	\$95
Industrial	4	0	\$85,655	\$10,414	\$2,444
Religious/Non-Profit	3	0	\$24,894	\$1,239	\$154
Residential	8,773	59	\$1,259,451	\$18,197	\$11,661
Total	10,071	78	\$1,658,521	\$43,925	\$17,286

HAZUS-MH estimates 10 census blocks with losses exceeding \$1 million. HAZUS-MH aggregate loss analysis is evenly distributed across a census block. Census blocks of concern should be reviewed in more detail to determine the actual percentage of facilities that fall within the flood hazard areas. The aggregate losses reported in this study may be overstated.

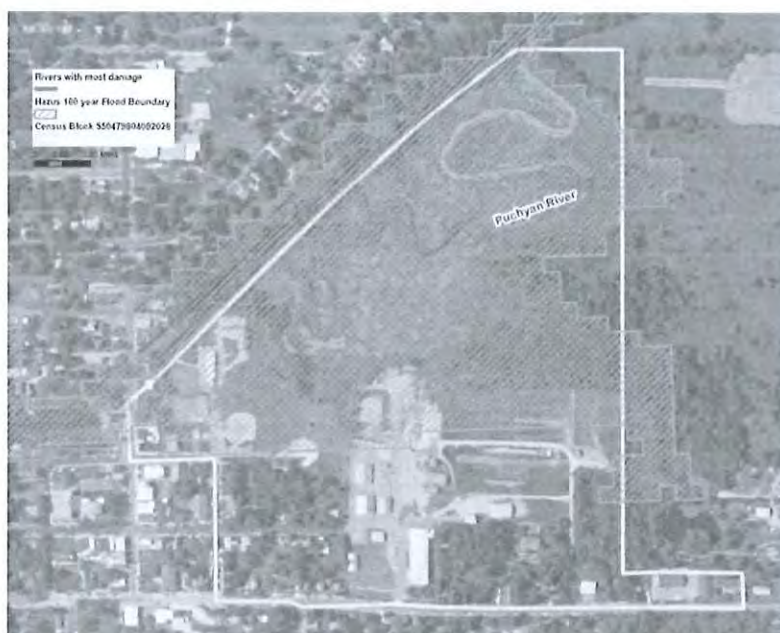
The reported building counts should be interpreted as degrees of loss rather than as exact numbers of buildings exposed to flooding. These numbers were derived from aggregate building inventories, which are assumed to be dispersed evenly across census blocks. HAZUS-MH requires that a predetermined amount of square footage of a typical building sustain damage in order to produce a damaged building count. If only a minimal amount of damage to buildings is predicted, it is possible to see zero damaged building counts while also seeing economic losses.

Green Lake Total Economic Loss - 100-Year Flood



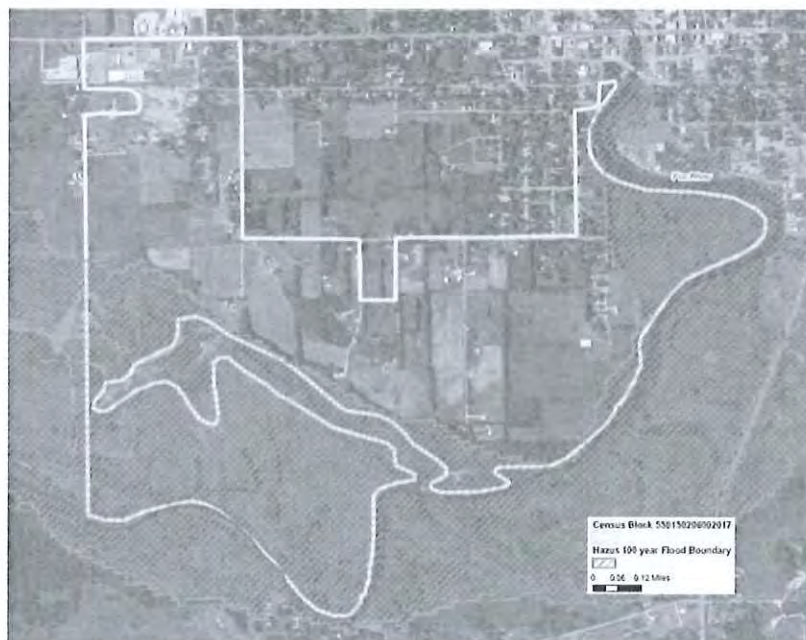
Appendix F: HAZUS Vulnerability Assessment

Flood Damage Exposure in Green Lake



This picture shows census blocks overlaid with the flood boundary and orthophoto of Green Lake. There is an estimated building loss of \$770,000 and a combined replacement cost of \$ 2.29 M. HAZUS-MH calculates that 33 residential buildings are within the census block, six of which sustain flooding damage as is seen in the orthophoto.

Flood Damage Exposure in Berlin



This picture shows census blocks overlaid with the flood boundary and orthophoto in Berlin. There is an estimated building loss of \$599,000 with a combined replacement cost of \$ 1.66 M. HAZUS-MH estimates that of the 95 residential buildings within the census block, six are within the calculated flood boundary; however, the orthophoto shows that none of the buildings in the census block are within the floodplain boundary.

HAZUS-MH Essential Facility Loss Analysis

An essential facility would encounter many of the same impacts as any other building within the flood boundary. These impacts include: structural failure, extensive water damage to the facility, and loss of facility functionality (i.e., a damaged police station will no longer be able to serve the community).

The HAZUS-MH analysis identified three Essential Facilities that may be subject to flooding. A list of the essential facilities within Green Lake County is included in the tables below.

Green Lake Essential Facility Loss - 100-Year Flood

Class	Building Count	At Least Moderate Damage	At Least Substantial Damage	Loss of Use
Care Facilities	4	0	0	0
EOC	0	0	0	0
Fire Stations	7	0	0	0
Police Stations	7	0	0	0
Schools	15	3	0	0
Total	33	3	0	0

Green Lake Damaged Essential Facilities

Facility Name
Green Lake Elementary School*
Green Lake High School*
Markesan Elementary School*

* Essential Facilities that may be outside of the 100-year flood boundary according to orthophoto interpretation or address verification.

HAZUS-MH Shelter Requirement Analysis

HAZUS-MH estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS-MH also estimates those displaced people who will require accommodations in temporary public shelters. The model estimates that 461 households will be displaced due to the flood. Displacement includes households evacuated from within or very near the inundated area. Of these, 615 people (out of a total population of 19,105) will seek temporary shelter in public shelters.

HAZUS-MH State Property Loss Analysis

The flood boundaries were overlaid with the State of Wisconsin property boundaries as provided by the Department of Natural Resources within Green Lake County. The table below provides the names of state properties that overlay with the HAZUS-MH flood boundary.

Green Lake State Property Flood Inundation

State Property	Percent Inundated	Acres Inundated
White River Marsh Wildlife Area	45%	5195
Grand River Marsh Wildlife Area	54%	3098
Statewide Habitat Areas	94%	407
Statewide Natural Area	79%	341
Upper Fox River Public Access	91%	231
Extensive Wildlife Habitat	39%	61
Scattered Wildlife	68%	48
Green Lake Rearing Station	78%	13

Appendix G: Community Input

Green Lake County believes in the importance of gathering public input from interested parties in the community. To achieve this goal, the Emergency Management office took every opportunity available to utilize various methods to publicize the opportunity for people to participate in the planning process and to gather input from interested parties. The table that follows outlines the major opportunities that were created to discuss the plan. The table includes dates of workgroup meetings, meetings with public officials, and media opportunities for the all-hazards pre-disaster mitigation plan.

DATE	SUMMARY OF OPPORTUNITY
8/29/2024	Initial press release sent to local media outlets (i.e., Berlin Journal, Green Lake Reporter, Markesan Herald, Princeton Times) notifying the public of the planning grant and requesting interested parties for participation. See copy of the release and scan of the article (follows). It was also put on the "News" section of the county website.
6/18/2024	Present the plan update process at the Towns Association meeting. Ask the elected officials present to complete the hazard mitigation survey and, if interested, join the update workgroup.
9/20/2024 9/23/2024	The Green Lake Community Survey was sent with a cover letter to all municipal officials. Copy of cover memo and compilation of comments received follows.
October & November 2024	Mitigation brochures were printed and distributed around public locations in Green Lake County. A copy is attached.
11/7/2024	Pre-Disaster Mitigation plan meeting with the core workgroup.
11/12/2024	Pre-Disaster Mitigation plan meeting with the core workgroup.
(need date)	Green Lake County EM, contractor, and PDM workgroup met via remote technologies (phone, email, etc.) to review the plan draft and hazard mitigation strategies.
(need date)	The press release was sent to local media outlets to notify the public that the plan was completed and available for review.
(need	Notice of plan availability for public review and comment

Appendix G: Community Input

date)	was placed in the Public Notice section of the newspaper.
(need date)	Copies of the plan were sent to the municipal leaders of the cities, villages, and towns in Green Lake County. Additionally, county board officials were given the plan for review and comment. Comments were received, and the few minor edits were incorporated into the plan.
(need date)	Copies of the plan were sent to the Emergency Management Directors of the contiguous counties for review and comment. No comments were received.

One of the main ways people were made aware of the plan was the publication of a brochure (following) that was widely distributed in the public buildings around the community. The purpose of this brochure was to provide a general overview of the mitigation planning process, the impetus for planning, and the scope of the final result.

WTA Unit Meeting Minutes 6/18/2024

MINUTES

WTA UNIT MEETING, GREEN LAKE COUNTY

July 18, 2024

The Green Lake County Towns Association unit meeting was held on Thursday, July 18, 2024 at the Lakeview Inn, hosted by the Town of Green Lake.

Chairman Bob Bahn called the meeting to order with the Pledge of Allegiance. Roll call was taken with 26 members and 2 guests in attendance.

The minutes of the April 18, 2024 meeting were read. With 2 checks being written, a balance of \$855.35 was reported in the checkbook. A motion to approve the minutes & treasurer's report by Gene Schroeder, seconded by John Kalupa – motion carried by oral vote.

Brenda Murkley read a report from County Clerk Liz Otto in her absence. She noted that the county will be having election training on September 27th with Marquette and Waushara County. She recently sent out guidance to all clerks from the Wisconsin Elections Commission in regards to the update on absentee ballot drop boxes.

County Treasurer, Jessica McLean reminded treasurers that the August settlements will be coming up on Aug. 20th and if any changes to municipal banking to let her know. PA-551's were due July 1st, all in the county were timely and we were one of the few counties to do so.

Renee Thiem-Korth, Register of Deeds reported that transfers are still up. The county will start a new way of recording in the deeds office, all originals filed will be copied and will not be returned unless picked up or provided a stamped envelope. Many are still signing up for the property fraud program available. An honors reward program is available to vets with 20 businesses signed up for reductions. She also thanked all town board members as they are very much appreciated for a thankless job.

County Board Supervisor Harley Reabe was asked to update on happenings with the county board. He reported that there was an Ad Hoc Committee meeting about the county garage and that some of the subcommittees had been combined.

Finance Director Ken Stafani introduced himself. He has been working for the county a little over a year and works with the budget.

Sheriff Mark Podoll handed out information from Gary Podoll (Emergency Management Director) to each municipality about the Hazmat plan up-date. He then spoke about some of the things going on since the last meeting which included: farm vehicles cannot be passed in a double yellow, law officers visiting polling places during elections, the 911 phone troubles the department has been experiencing and the fundraiser for a new K-9 since Rocky passed away.

WTA Director, John Piechowski noted the WTA convention coming up in October and the ACE Ag meeting coming up. A TAC listening session was held in Dodge County the night before and a big concern has been short term rentals. He also touched on the up-coming fall workshops and the road school that had been held in April.

Guest speaker State Representative Alex Dallman gave some of his background and handed out his newsletter. He serves on the Joint Finance Committee and is proud of the 2023

Appendix G: Community Input

Act 60 in which all high school students must pass a financial literacy course before graduating. He spoke about the upcoming election and about the future partisan map changes. He also spoke about some of the issues he is concerned about for next year.

The next meeting will be held on Thursday, October 17, 2024 to be hosted by the Town of Kingston at 7:00 p.m.

A motion was made by Joe Formillar to adjourn the meeting and seconded by Gene Schroeder. Motion carried by oral vote.

A thank you was given to the Town of Green Lake for hosting the meeting.

Respectfully Submitted,
Brenda Murkley, Clerk

Letter to Town Leaders 7/17/2024



GREEN LAKE COUNTY
OFFICE OF EMERGENCY MANAGEMENT

Gary V. Podoll
Director

Office: 920-361-5416
FAX: 920-361-5405

Date: July 17, 2024

To: Town Leaders

From: Gary Podoll, Green Lake County Emergency Management Director

Re: Pre-Disaster Mitigation (PDM) Plan Up-date

Green Lake County, like the rest of the State of Wisconsin, is vulnerable to a variety of disasters. Disaster losses can be reduced through mitigation activities.

Mitigation actions reduce or eliminate the long-term risk to human life and property from hazards. These preventative actions can be simple such as elevating a furnace in a basement that sometimes has water on the floor. Mitigation can also have a comprehensive approach such as relocating buildings out of the floodplain or strengthening critical facilities to prevent wind damage and provide stronger shelter.

In an effort to better prepare Green Lake County to manage its vulnerability to disaster Green Lake County Emergency Management applied for and received a PDM planning grant. This goal of this grant is to complete an approvable plan, which will serve as a roadmap that outlines potential cost-effective hazard mitigation activities, some of which might be available for future grant funding.

The plan is designed to look at the risks and vulnerabilities that the county faces from natural disaster and to highlight mitigation strategies that might reduce future losses to life and property. As part of this planning process, I will need your help again.

I will be sending out a survey for you to complete and later a resolution for you to adopt the plan. This very short survey will help us to identify the concerns that you have in your municipality and to capture ideas that you have for making your community safer and more disaster resistant.

After receiving your surveys, the information will be incorporated into the draft plan.

Finally, after the workgroup has a final draft, we will be sending copies of the plan to each of you for final review and adoption. It is important to note two things:

- Adoption of this plan will not cost your community anything. You will not be *committing to completing* any of the projects listed; instead it is a list of triaged ideas that can be accomplished should the funding and will to complete them become available.
- If you do not adopt this plan, your community will not be eligible to apply for and receive mitigation project funding in the future.

Please watch for more information that I will be sending you.

Press Release to County Newspapers 8/29/2024



GREEN LAKE COUNTY
OFFICE OF EMERGENCY MANAGEMENT

Gary V. Podoll
Director

Office: 920-361-5416

August 29, 2024

For Immediate Release all County Papers

Green Lake County Receives A Hazard Mitigation Planning Update Grant

Green Lake County, like the rest of the State of Wisconsin, is vulnerable to a variety of disasters. Wisconsin has incurred disaster-related damages totaling nearly \$3 billion in the last three decades, with almost half of that occurring in the 1990s alone. These losses can be reduced through mitigation activities. It is estimated that for every dollar spent on mitigation, \$2 to \$3 in future damages can be avoided. Hazard mitigation breaks the cycle of damage and repair.

Mitigation actions reduce or eliminate the long-term risk to human life and property from hazards. These preventative actions can be simple such as elevating a furnace in a basement that sometimes has water on the floor. Mitigation can also have a comprehensive approach such as relocating buildings out of the floodplain or strengthening critical facilities to prevent wind damage and provide stronger shelter.

In an effort to better prepare Green Lake County to manage its vulnerability to disaster, Gary Podoll, Green Lake County Emergency Management Director, applied for and received a hazard mitigation planning update grant. The goal of this grant is to update an approvable plan, which will serve as a roadmap that outlines potential cost-effective hazard mitigation activities, some of which might be available for future grant funding.

The plan is designed to look at the risks and vulnerabilities that the county faces from natural disaster and to highlight mitigation strategies that might reduce future losses. As part of this planning process, Podoll is assembling a workgroup to review and guide the planning activities. The workgroup is reviewing initial background information about Green Lake County and has begun identifying strategies that might help.

Podoll stated, "I am very excited about this part of the planning process. The input from the workgroup can have long-lasting impacts, making Green Lake County safer and more disaster resistant."

FEMA has recognized the importance of having members of the community involved in the process and Podoll would like to ensure that all interested members of the community have an opportunity to provide input into the plan. If you are interested in more information or would like to provide input into the plan, please contact Gary Podoll at 920-361-5416.

Green Lake County is an Equal Employment Opportunity Employer
571 County Road A, Green Lake, WI 54941
Visit our web site: www.co.green-lake.wi.us

Gary Podoll

From: Gary Podoll
Sent: Wednesday, August 28, 2024 6:36 AM
To: 'news@theberlinjournal.com'
Subject: Article for County Papers
Attachments: Article for County Papers.pdf

Hi Scott,
Please put this as an article in the County Papers.
Hope you have a Great Day!!
Thanks,
Gary

Articles in Newspapers 9/5/2024

Berlin Journal
9/5/2024

YOUR OFFICIAL GREEN LAKE COUNTY NEWSPAPER

Green Lake County receives hazard mitigation planning update grant

Green Lake County, like the rest of Wisconsin, is vulnerable to a variety of disasters. Wisconsin has incurred disaster-related damages totaling nearly \$3 billion in the last three decades, with almost half of that occurring in the 1990s alone. These losses can be reduced through mitigation activities. It is estimated that for every dollar spent on mitigation, \$2-\$3 in future damages can be avoided. Hazard mitigation breaks the cycle of damage and repair.

Mitigation actions reduce or eliminate the long-term risk to human life and property from hazards. These preventative actions can be simple such as elevating a furnace in a basement that sometimes has water on the floor. Mitigation can also have a comprehensive approach such as relocating buildings out of the floodplain or strengthening critical facilities to prevent wind damage and provide stronger shelter.

In an effort to better prepare Green Lake County to manage its vulnerability to disaster, Green Lake County Emergency Management Director Gary Podoll applied for and received a hazard mitigation planning update grant. The goal of this grant is to update an approvable plan, which will serve as a roadmap that outlines potential cost-effective hazard mitigation activities, some of which might

be available for future grant funding.

The plan is designed to look at the risks and vulnerabilities that the county faces from natural disasters and to highlight mitigation strategies that might reduce future losses. As part of this planning process, Podoll is assembling a workgroup to review and guide the planning activities. The workgroup is reviewing initial background information about Green Lake County and has begun identifying strategies that might help.

Podoll stated, "I am very excited about this part of the planning process. The input from the workgroup can have long-lasting impacts, making Green Lake County safer and more disaster resistant."

FEMA has recognized the importance of having members of the community involved in the process and Podoll would like to ensure that all interested members of the community have an opportunity to provide input into the plan. If you are interested in more information or would like to provide input into the plan, please contact Gary Podoll at 920-361-5416.

The preceding press release was submitted by the Green Lake County Office of Emergency Management for publication to Berlin Journal Newspapers.

Green Lake Reporter
9/5/2024

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Markesan Regional Reporter

9/5/2024

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Princeton Times-Republic
9/5/2024

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The preceding press release was submitted by the Green Lake County Office of Emergency Management for publication to Berlin Journal Newspapers.

Survey Letter 9/20/2024 and 9/23/2024



GREEN LAKE COUNTY
OFFICE OF EMERGENCY MANAGEMENT

Gary V. Podoll
Director

Office: 920-361-5416

Date: September 17, 2024

To: Town, Village or City Leader
County Department Manager

From: Gary Podoll, Green Lake County Emergency Management Director

Re: Hazard Mitigation Plan Update

Green Lake County, like the rest of the State of Wisconsin, is vulnerable to a variety of disasters. Wisconsin has incurred disaster-related damages totaling nearly \$3 billion in the last three decades, with almost half of that occurring in the 1990s alone. These losses can be reduced through mitigation activities. It is estimated that for every dollar spent on mitigation, \$2 to \$3 in future damages can be avoided. Hazard mitigation breaks the cycle of damage and repair.

Mitigation actions reduce or eliminate the long-term risk to human life and property from hazards. These preventative actions can be simple such as elevating a furnace in a basement that sometimes has water on the floor. Mitigation can also have a comprehensive approach such as relocating buildings out of the floodplain or strengthening critical facilities to prevent wind damage and provide stronger shelter.

In an effort to better prepare Green Lake County to manage its vulnerability to disaster Green Lake County Emergency Management applied for and received a hazard mitigation planning update grant. This goal of this grant is to complete an approvable updated plan, which will serve as a roadmap that outlines potential cost-effective hazard mitigation activities, some of which might be available for future grant funding.

The plan is designed to look at the risks and vulnerabilities that the county faces from natural disasters and to highlight mitigation strategies that might reduce future losses to life and property. As part of this planning process, I need your help.

The first step is asking that you please place an item on your **next** municipal meeting agenda to complete the attached survey. This very short survey will help us to identify the concerns that you have in your municipality and to capture ideas that you have for making your community safer and more disaster resistant. Please return your completed surveys to me by **October 25, 2024**.

After receiving your surveys, the information will be incorporated into the draft plan, which is being guided by a workgroup of interested agencies and public members. I would like to

Green Lake County is an Equal Employment Opportunity Employer
571 County Road A, Green Lake, WI 54941
Visit our web site: www.co.green-lake.wi.us

Appendix G: Community Input

extend an offer for anyone from your leadership council, your municipal staff or your general community to contact me if they would like to join the workgroup.

Finally, after the workgroup has a final draft, we will be sending copies of the plan to each of you for final review and adoption. It is important to note two things:

- Adoption of this plan will not cost your community anything. You will not be committing to completing any of the projects listed; instead it is a list of triaged ideas that can be accomplished should the funding and will to complete them become available.
- If you do not adopt this plan, your community will not be eligible to apply for and receive mitigation project funding in the future.

Let me thank you in advance for the assistance that you are providing. This small investment of your time will help make our community a safer, healthier and more disaster-resistant community for years to come.

If you are interested in more information about the plan or would like to provide input into the plan, please feel free to contact me at (920) 361-5416 or by email at gpodoll@cityofberlin.wi.gov

Gary Podoll

From: Gary Podoll
Sent: Friday, September 20, 2024 9:07 AM
To: 'Brenda Murkley, Town of Berlin'; 'Town of Brooklyn Clerk'; 'clerk@townofgreenlake.gov'; 'Traci Campnell'; 'clerk@townofmackfordwi.gov'; 'Corrine Krueger'; 'Clerk TOMarquette'; 'clerk@tn.stmarie.wi.gov'; 'Town of Seneca'; 'vilmarquette@core.com'; 'CenturyLink Customer KINGSTON VLG HALL'; 'Barbara Dugenske'; 'Betsy Amend'; Mary Neubauer (mneubauer@cityofprincetonwi.com)
Subject: Green Lake County Hazard Mitigation Plan Update Survey
Attachments: Green Lake County 2024 Hazard Mitigation Plan Update Cover Letter.pdf; Green Lake County 2024 Hazard Mitigation Plan Update Survey.docm; Green Lake County 2024 Hazard Mitigation Plan update Road Project Form.docx

Hi All,

Please fill out the attached Mitigation Survey and also the road project form.

I need to have 100% of you to return the survey.

Please advise your Town Chairman, Village President and City Mayor of this survey.

Hope you have a Great Day!!

If you have any questions you can call me on my cell 920-290-2275.

Gary Podoll
Emergency Management Director
Green Lake County

Gary Podoll

From: Gary Podoll
Sent: Friday, September 20, 2024 9:07 AM
To: Derek Mashuda (dmashuda@greenlakecountywi.gov)
Subject: Green Lake County Hazard Mitigation Plan Update Survey
Attachments: Green Lake County 2024 Hazard Mitigation Plan Update Survey.docm; Green Lake County 2024 Hazard Mitigation Plan update Road Project Form.docx

Hi Derek,
I am updating the Green Lake County Hazard Mitigation Plan and I need you to fill out and return the attached survey. This plan is updated every 5 years and is important that we are required to have in order to get mitigation funding after a declared disaster.
I need it back by October 25, 2024.
Hope you have a Great Day!!
Gary

Gary Podoll

From: Gary Podoll
Sent: Monday, September 23, 2024 5:44 AM
To: Tim Ludolph
Subject: Green Lake County Hazard Mitigation Plan Update Survey
Attachments: Green Lake County 2024 Hazard Mitigation Plan Update - SURVEY.docx

Hi Tim,

Please fill out the attached Mitigation Survey and return to me.

Hope you have a Great Day!!

If you have any questions you can call me on my cell 920-290-2275.

Gary Podoll
Emergency Management Director

Appendix G: Community Input

Gary Podoll

From: Gary Podoll
Sent: Monday, September 23, 2024 5:44 AM
To: Scott Zabel
Subject: Green Lake County Hazard Mitigation Plan Update Survey
Attachments: Green Lake County 2024 Hazard Mitigation Plan Update - SURVEY.docx; Green Lake County 2024 Hazard Mitigation Plan update Road Project Form.docx

Hi Scott,

Please fill out the attached Mitigation Survey and also the road project form.

Return both to me.

Hope you have a Great Day!!

If you have any questions you can call me on my cell 920-290-2275.

Gary Podoll
Emergency Management Director

Gary Podoll

From: Gary Podoll
Sent: Monday, September 23, 2024 5:44 AM
To: Brian Malnory
Subject: Green Lake County Hazard Mitigation Plan Update Survey
Attachments: Green Lake County 2024 Hazard Mitigation Plan Update - SURVEY.docx

Hi Brian,

Please fill out the attached Mitigation Survey and return to me.

Hope you have a Great Day!!

If you have any questions you can call me on my cell 920-290-2275.

Reminder of the LEPC meeting Thursday September 26th at 9:00 a.m.

Gary Podoll
Emergency Management Director

Workgroup Meeting Invitations 10/21/2024 and 10/23/2024



GREEN LAKE COUNTY
OFFICE OF EMERGENCY MANAGEMENT

Gary V. Podoll
Director

Office: 920-361-5416
FAX: 920-361-5405

Date: October 21, 2024

To: Municipalities; Local and County Agencies; Businesses; Academia; Private, Non-Profit and Community-Based Organizations

From: Gary Podoll, Emergency Management Director

Re: Hazard Mitigation Plan Workgroup

The Green Lake County Emergency Management Office has received a grant from the Federal Emergency Management Agency (FEMA) and Wisconsin Emergency Management to complete an update of the Hazard Mitigation Plan for Green Lake County because as with any plan, it needs to be evaluated and updated on a regular basis to outline progress and to set a roadmap for future mitigation efforts.

The plan reviews the risks for various natural disasters within Green Lake County and creates a plan for addressing these risks in a cost-effective way. As I am sure you are aware, Green Lake County has historically received federal disaster declarations and we are at continued risk for future events such as flooding, high winds and tornados; this planning is intended to help reduce potential future losses. Also, the federal government requires that communities have a current hazard mitigation plan as one criterion for eligibility for some types of grants, so it is critical that this plan is completed and kept updated on schedule.

This requires significant input from stakeholder agencies; the public; neighboring communities; businesses; academia; and private, non-profit and community-based organizations during the planning process. In order for municipalities to be eligible for future FEMA mitigation funding they must participate in these planning sessions. I have contracted with Lenora Borchardt, EPTec, INC., to assist me with completing this update.

Each of the municipalities must have at least one representative to participate as a member of our planning team. Team members will be asked to be available to assist the contractor by answering questions needed to complete the plan.

Appendix G: Community Input

Our first workgroup meeting is scheduled for Thursday November 7, 2024 from 9:00 a.m. to 11:00 a.m. in person at Green Lake County Emergency Operation Center (EOC) 571 County Road A, Green Lake WI 54941 or can be attend virtually at the link below.

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 269 772 391 539

Passcode: tzHbAi

Dial in by phone

[+1 920-515-0745 22491543#](#) United States, Appleton

[Find a local number](#)

Phone conference ID: 224 915 43#

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)

Please accept at your earliest convenience. Thank you!

[Org help](#) | [Privacy and security](#)

If unable to attend the day meeting, we will have another virtual only meeting that same evening Thursday November 7th from 6:00 p.m. – 8:00 p.m. with link below.

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 270 037 542 294

Passcode: b49C6V

Dial in by phone

[+1 920-515-0745 604509264#](#) United States, Appleton

[Find a local number](#)

Phone conference ID: 604 509 264#

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)

Please accept at your earliest convenience. Thank you!

[Org help](#) | [Privacy and security](#)

There will also be a second meeting on Tuesday November 12, 2024 at 9:00 a.m. – 11:00 a.m. in person at the EOC or can be attended virtually at the link below.

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 247 426 244 663

Passcode: JaRx7U

Dial in by phone

[+1 920-515-0745 51669983#](#) United States, Appleton

[Find a local number](#)

Phone conference ID: 516 699 83#

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)

Please accept at your earliest convenience. Thank you!

[Org help](#) | [Privacy and security](#)

I look forward to your participation in this process so that we may keep our communities eligible for future hazard mitigation grant funding. Please feel free to contact me with any questions at (920) 361-5416.

Sincerely,

Gary Podoll, Director

Green Lake County Emergency Management

Gary Podoll

From: Gary Podoll
Sent: Wednesday, October 23, 2024 10:52 AM
To: Jerome, Jason (jjerome@greenlakecountywi.gov); Prellwitz, Rachel (rprellwitz@greenlakecountywi.gov); 'mpodoll@greenlakecountywi.gov'; Cornelius, Dave (dcornelius@greenlakecountywi.gov); 'Kirkman, Matt'; 'Stanuch, Gerald'; Derek Mashuda (dmashuda@greenlakecountywi.gov); 'Barbara Dugenske'; 'Betsy Amend'; Mary Neubauer (mneubauer@cityofprincetonwi.com); shadyoaks@dotnet.com; 'vilmarquette@core.com'; Tim Ludolph; Brian Malnory; Tammy Bending (tammy.bending@thedacare.org); Dan Kuglin (dankuglin9@gmail.com); 'swendt@greenlakecountywi.gov'; Emmett Durtschi (edurtschi@berlin.k12.wi.us); 'allen.luchini@wausharacountywi.gov'; Bill Wagner Green Lake Fire (firechief@ci.greenlake.wi.gov)
Cc: lenoraborchardt@hotmail.com
Subject: Hazardous Mitigation Plan Update Workshop Group
Attachments: Green Lake County Hazardous Mitigation Plan Update Workshop Nov 2024.doc

Attached you will find the planning group meetings that are scheduled for November.
If you can make one or both of them would be Great.
You can attend in person or virtual.
If you are unable to attend, please let me know of any questions that you might have.
We will contact you directly if we have anything that we will need from you.

*Outside of County
Waushara County*

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Cc: lenoraborchardt@hotmail.com <lenoraborchardt@hotmail.com>
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 **Green Lake County Hazardous Mitigation Plan Update Workshop Nov 2024.doc**
 209K

Brochure Distribution October and November 2024



GREEN LAKE COUNTY
OFFICE OF EMERGENCY MANAGEMENT

Gary V. Podoll
Director

Office: 920-361-5416

Date: November 4, 2024

To: Libraries in Green Lake County

From: Gary Podoll, Emergency Management Director

Re: Green Lake County Hazard Mitigation Plan Brochures

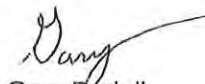
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Enclosed I have provided some brochures, that I ask you to put out for people to look at and take.

If you have any questions please feel free to contact me on my cell 920-290-2275.

Thank you,

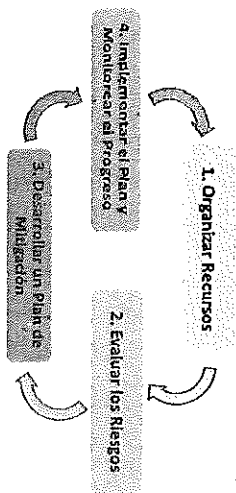


Gary Podoll
Emergency Management Director
Green Lake County

English and Spanish versions of brochure distributed in person at the Berlin Library on 10/28/2024; and via postal mail to Caestecker Public Library, Kingston Mill Pond Public Library, Markesan Public Library and Princeton Public Library on November 4, 2024.

Planificación de Mitigación antes de Desastres

Creando Comunidades Seguras y Sostenibles

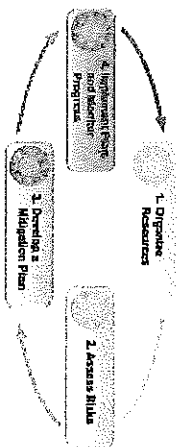


Preparado por:

Green Lake County
Emergency Management
571 County Rd. A
Green Lake, WI 54941
(920) 361-5416

Pre-Disaster Mitigation Planning

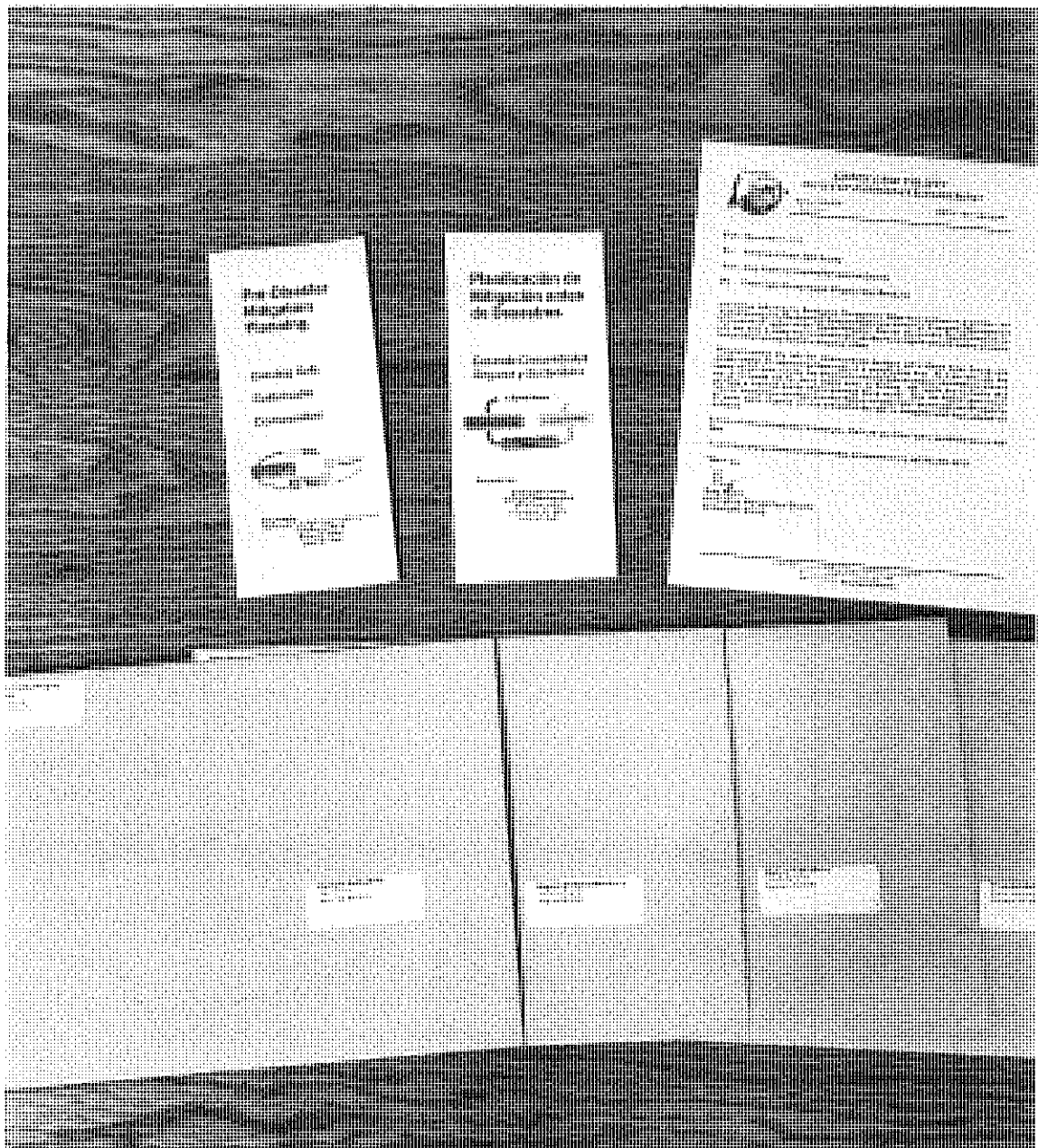
Creating Safe, Sustainable Communities



Prepared by:

Green Lake County Emergency Management
571 County Rd. A
Berlin, WI 54941
(920) 361-5416





Sign-In 11/7/2024 Workgroup Meeting

GREEN LAKE COUNTY
HAZARDOUS MITIGATION PLAN
WORK GROUP
MEETING
NOVEMBER 7, 2024
9:00 A.M.

<u>Signature</u>	<u>Agency</u>
1. Todd Zamzow	City of Markesan
2. MIA Podell	Shenandoah's office
3. Allison Krause	Health Dept.
4. Rachel Pullwiltz	Health Dept.
5. Bill Wagner	GLB Fire Dept.
6. Tim Ludolph	City of Berlin
7. Jason Jerome	Health and Human Services
8. Jason Jerome	Village of Kingston
9. Shige Pulice	Gr. L. Rotary
10. Bill HATCHISON	GLC IT
11. Marylou Taylor	C - Princeton
12. Sue Wendt	County Board - zoning
13. Matt Kirkman	LUP & Zoning Dept.
14. Jay Podell	Green Lake County EMM
15. Dave Cornelius	Green Lake County EMM II
16. LENORA BORCHARDT	BLTEC

11/7/2024 Workgroup Meeting



Sign-In 11/12/2024 Workgroup Meeting

GREEN LAKE COUNTY
HAZARDOUS MITIGATION PLAN
WORK GROUP
MEETING
NOVEMBER 12, 2024
9:00 A.M.

Signature	Agency
1. Doug Podell	Green Lake County Emergency Management
2. Dave Cornelius	G.L. County E.M.
3. Matt Podell	Green Lake City Sheriff's Office
4. Jason Jerome	Green Lake Ct. DHTS
5. Jason Jerome	Village of Kingston
6. Bill Wagner	Ed.-B. Fire Dept
7. Sue Wendt	Co. Bd. Eng & Zoning
8. Todd Zamzow	City of Markesan
9. Allison Krause	Health Dept.
10. Tim Ludolph	City of Berlin
11. Rachel Paulding	GLE DHTS - Health
12. Matt Kirkman	LUP & Zoning
13. David Starnel	GIS
14. Shiree Pulice	Rotary - G.L.
15. [Signature]	City of Green Lake PWD
16. [Signature]	

in line

Tammy Bonding
Art Cybul

Theda Carr Berlin
Village of Muskegon

GREEN LAKE COUNTY, WISCONSIN NATURAL HAZARDS PREPAREDNESS & MITIGATION QUESTIONNAIRE

1. In the past five years, has your community experienced a natural disaster such as a severe windstorm, flood, wildfire, earthquake, etc.?

- ☐ NO..... (If NO, skip to Question 2)
- ☐ YES.....(If YES, please check all that apply below)

Event	When event last occurred:				
	Within past year	1-5 years ago	5-15 years ago	More than 15 years ago	Never
Drought	CO HHS	CI Berlin (Zabel) TN St. Marie	TN Mackford	TN St. Marie	CI Princeton TN Berlin
Dust Storm					CO HHS CI Princeton TN Berlin TN Mackford TN St. Marie Berlin Area School District
Earthquake					CO HHS CI Princeton TN Berlin TN Mackford TN St. Marie Berlin Area School District
Flood		CO HHS CO IT CI Princeton	CO Land Use, Planning & Zoning CI Berlin (Ludolph) CI Berlin (Zabel) CI Princeton TN St. Marie	CO Land Use, Planning & Zoning CI Berlin (Zabel) CI Princeton TN Brooklyn TN Mackford TN St. Marie Berlin Area School District	TN Berlin
Lakeshore Erosion		CO HHS VI Marquette	VI Marquette	TN Brooklyn	CI Princeton TN Berlin TN Mackford TN St. Marie Berlin Area School District
Landslide/ Debris Flow					CO HHS CI Princeton TN Berlin TN Mackford TN St. Marie Berlin Area School District
Wildfire	CO HHS CO IT	TN St. Marie	TN St. Marie	TN St. Marie	CI Princeton TN Berlin TN Mackford Berlin Area School District
Windstorm/ Tornado	CO HHS CO Land Use, Planning & Zoning CI Berlin (Ludolph) TN St. Marie	CO EM CO IT CI Berlin (Zabel) TN St. Marie Berlin Area School District	CO Land Use, Planning & Zoning TN Mackford TN St. Marie	CI Berlin (Zabel) CI Princeton TN Brooklyn TN St. Marie	TN Berlin

Appendix G: Community Input

Severe Winter Storm	CO HHS	CO IT CI Berlin (Zabel) VI Marquette TN St. Marie Berlin Area School District	CI Berlin (Zabel) VI Marquette TN Mackford TN St. Marie	CI Berlin (Zabel) CI Princeton VI Marquette TN St. Marie	TN Berlin
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Appendix G: Community Input

2. For which of the following natural disasters do you think your community is at risk? (Check the appropriate box for each hazard.)

Event	Extremely Concerned	Very Concerned	Concerned	Somewhat Concerned	Not Concerned
Drought		TN Seneca	CO HHS TN Mackford TN Manchester TN St. Marie	CO EM CO IT CI Berlin (Zabel) VI Kingston Berlin Area School District	CO Highway CI Berlin (Ludolph) CI Green Lake CI Markesan TN Berlin
Dust Storm				CI Berlin (Zabel)	CO EM CO HHS CO Highway CO IT CI Berlin (Ludolph) CI Green Lake CI Markesan VI Kingston TN Berlin TN Mackford TN Manchester TN Seneca TN St. Marie Berlin Area School District
Earthquake					CO EM CO HHS CO Highway CO IT CI Berlin (Ludolph) CI Berlin (Zabel) CI Green Lake CI Markesan VI Kingston TN Berlin TN Mackford TN Manchester TN Seneca TN St. Marie Berlin Area School District
Flood	CO Land Use, Planning & Zoning CI Berlin (Ludolph) CI Princeton VI Marquette	CO HHS CO IT CI Berlin (Zabel) CI Markesan VI Kingston TN Brooklyn TN St. Marie	CO EM CI Green Lake TN Manchester TN Seneca	TN Berlin TN Mackford Berlin Area School District	
Erosion	TN Brooklyn		CO HHS CO Land Use, Planning & Zoning CI Berlin (Ludolph) CI Markesan CI Princeton TN Manchester TN Seneca	CO Highway CI Berlin (Zabel) VI Kingston TN Berlin TN Mackford	CO EM CO IT CI Green Lake Berlin Area School District

Appendix G: Community Input

			TN St. Marie Green Lake Rotary Club		
Landslide/ Debris Flow			TN Brooklyn	CI Berlin (Ludolph) TN Manchester TN St. Marie	CO EM CO HHS CO Highway CO IT CI Berlin (Zabel) CI Green Lake CI Markesan VI Kingston TN Berlin TN Mackford TN Seneca Berlin Area School District
Wildfire	TN Seneca	CO IT TN St. Marie	CO EM CO HHS CO Highway CO Land Use, Planning & Zoning CI Berlin (Zabel) TN Manchester Green Lake Rotary Club	CI Berlin (Ludolph) TN Berlin TN Mackford Berlin Area School District	CI Green Lake CI Markesan VI Kingston
Windstorm/ Tornado	CO IT CO Land Use, Planning & Zoning TN Seneca	CO EM CO HHS CI Berlin (Zabel) CI Princeton VI Kingston TN St. Marie Green Lake Rotary Club	CO Highway CI Berlin (Ludolph) CI Markesan VI Marquette TN Brooklyn TN Mackford TN Manchester	TN Berlin Berlin Area School District	CI Green Lake
Severe Winter Storm/ Ice Storm	CO IT	CO EM CO HHS CO Highway CI Berlin (Ludolph) CI Berlin (Zabel) VI Kingston VI Marquette TN Mackford TN Seneca Green Lake Rotary Club	CO Land Use, Planning & Zoning CI Markesan CI Princeton TN Brooklyn TN Manchester TN St. Marie	TN Berlin Berlin Area School District	CI Green Lake

3. Has your community had damage to facilities or infrastructure? If yes, please describe the damage (e.g., roads, public buildings, utilities).

- **CO Emergency Management:** No.
- **CO Highway:** Bridge washed out on CTH BB in 2008; roads in some areas will erode shoulders with heavy rains.
- **CO IT:** Homes, roads, bridges, etc.
- **CO Land Use, Planning & Zoning:** Roads damaged due to flooding.
- **CI Berlin (Ludolph):** Roads.
- **CI Berlin DPW (Zabel):** Erosion from flooding occurred on streets and the river bank.
- **CI Green Lake:** No.
- **CI Markesan:** W. John Street culvert washout; replaced single culvert with 2-6 feet concrete box-type culverts.
- **CI Princeton:** Flooding has put strain on the sewer system as the amount of infiltration into the system and the amount of flow that goes through the system. Flooding has also caused undermining in the streets where excessive water has washed away road base, affected culverts, as well as eroded shoulders on non-curbed roadways.
- **VI Kingston:** Not recently. Last time was in 2008.
- **VI Marquette:** Boat ramps and roads damaged due to flooding.
- **TN Berlin:** Nothing major.
- **TN Brooklyn:** No.
- **TN Mackford:** We have had minor damage to shoulders of roads due to heavy rain or snow melt.
- **TN Manchester:** No damage that was created by natural disaster.
- **TN Seneca:** Some road damage.
- **TN St. Marie:** On roads we have had to rebuild several roads and culverts because of high water damage (washouts).
- **Berlin Area School District:** Trees and powerline damage; some building damage.

4. What facilities or infrastructure in your community do you think are especially vulnerable to damage during a natural disaster?

- **CO Emergency Management:** Water distribution, sewer systems, electric utilities.
- **CO Highway:** Any of the scour critical bridges in the county with a bad enough flood could be a potential issue.
- **CO Land Use, Planning & Zoning:** Roads.
- **CI Berlin (Ludolph):** Roads and above-ground utilities.

Appendix G: Community Input

- **CI Berlin DPW (Zabel):** I feel that the safety of the Public Works facilities are vulnerable to natural disaster because they are very close to each other.
- **CI Green Lake:** Flooding along Big Green Lake shoreline and Puckyan River.
- **CI Markesan:** Kiwanis Park buildings; Wells #2 and 3; Hine and Kiwanis Park lift stations; East Vista Street.
- **VI Kingston:** Dam, sewer plant, fire house.
- **VI Marquette:** Roads.
- **TN Berlin:** Roads, town buildings.
- **TN Brooklyn:** No.
- **TN Mackford:** Roads. We have very few residences or businesses in a floodplain. Tornado would be a concern.
- **TN Manchester:** Town in general is vulnerable to weather-driven disasters.
- **TN St. Marie:** Our roads and culverts.
- **Berlin Area School District:** Homes.

5. How important do you think each of the following projects are in mitigating (i.e., lessening the impacts of) a natural disaster in your community?

Project	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	CO HHS CI Berlin (Ludolph) CI Green Lake CI Markesan CI Princeton VI Kingston TN Brooklyn TN Seneca TN St. Marie Berlin Area School District Green Lake Rotary Club	VI Marquette TN Berlin TN Mackford	CO Highway CO IT CO Land Use, Planning & Zoning CI Berlin (Zabel) VI Marquette TN Manchester		
Protecting critical facilities (hospitals, fire stations, etc.)	CO EM CO HHS CO Highway CO IT CO Land Use, Planning & Zoning CI Berlin (Ludolph) CI Berlin (Zabel) CI Green Lake CI Markesan CI Princeton VI Kingston TN Brooklyn	VI Marquette TN Mackford			TN Berlin

Appendix G: Community Input

	TN Seneca TN St. Marie Berlin Area School District Green Lake Rotary Club				
Preventing development in hazard areas	CO EM CO Land Use, Planning & Zoning CI Green Lake VI Kingston TN Brooklyn TN Seneca	CO HHS CO IT CI Berlin (Zabel) CI Markesan CI Princeton TN St. Marie Berlin Area School District	CO Highway CI Berlin (Ludolph) VI Marquette TN Mackford TN Manchester		TN Berlin
Enhancing the function of natural features (streams, wetlands)	CO Land Use, Planning & Zoning CI Berlin (Zabel) CI Markesan CI Princeton VI Kingston TN Brooklyn TN Seneca TN St. Marie	CO HHS CO IT CI Berlin (Ludolph) TN Berlin Berlin Area School District	CO EM CI Green Lake TN Mackford TN Manchester	CO Highway	VI Marquette
Protecting historical and cultural landmarks	CO HHS CI Berlin (Ludolph) CI Berlin (Zabel) CI Green Lake CI Princeton VI Kingston TN Brooklyn TN Seneca	CO IT CI Markesan	CO EM CO Land Use, Planning & Zoning VI Marquette TN Berlin TN Mackford TN Manchester TN St. Marie Berlin Area School District Green Lake Rotary Club	CO Highway	
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses	CO EM CO HHS CI Berlin (Zabel) CI Markesan CI Princeton VI Kingston VI Marquette TN Brooklyn TN Manchester TN Seneca Berlin Area School District Green Lake Rotary Club	CO Highway CO IT CO Land Use, Planning & Zoning CI Berlin (Ludolph) CI Green Lake TN Berlin TN Mackford TN Manchester TN St. Marie			
Protecting and reducing damage to utilities	CO EM CO Highway CO IT CO Land Use, Planning & Zoning CI Berlin (Ludolph) CI Berlin (Zabel) CI Green Lake CI Markesan CI Princeton VI Kingston VI Marquette TN Brooklyn TN Manchester TN Seneca	CO HHS TN Berlin TN Mackford			

Appendix G: Community Input

	TN St. Marie Berlin Area School District Green Lake Rotary Club				
Strengthening emergency services	CO EM CO HHS CO Land Use, Planning & Zoning CI Berlin (Ludolph) CI Berlin (Zabel) CI Green Lake CI Markesan CI Princeton VI Kingston VI Marquette TN Brooklyn TN Seneca Berlin Area School District Green Lake Rotary Club	CO Highway CO IT TN Berlin TN St. Marie	TN Mackford TN Manchester		

6. Do you have any community building projects (e.g., subdivisions, office/industrial parks, roads) slated to be built in the near future? If so, please describe it (e.g., project name, location, type, size)?

- **CO Emergency Management:** No.
- **CO Highway:** No additional facilities, just reconstructions of current facilities; highway shop slated to start being built in 2025.
- **CO Land Use, Planning & Zoning:** Nothing comes to mind.
- **CI Berlin (Ludolph):** Brian can elaborate but the WWTP refresh/expansion. Also, Riverview Subdivision multi-family and infill development.
- **CI Berlin DPW (Zabel):** A subdivision in the northeast part of Berlin called Riverview that will now continue out to E. Waushara St. Also a reconstruct to the connecting highways in Berlin. This is an 80%/20% cost share between WDOT and the city. Project IDs are 6210-00-04,24, & 74; 6540-01-03,23, & 73.
- **CI Green Lake:** No.
- **CI Princeton:** At the present time, there is nothing specifically slated to be built in the near future (2-3 year time period). Infrastructure items are scheduled to be replaced. However, those are all below grade (utility/street project). Flooding could impact that work which is presently scheduled for 2025 and beyond.
- **VI Kingston:** No, nothing new. Just repair to current roads.
- **VI Marquette:** County Road H or 2nd Street to be rebuilt including curbs to mitigate some of our water drainage issues in 2025.
- **TN Berlin:** None.
- **TN Brooklyn:** No.

- **TN Mackford:** Other than road maintenance, no.
- **TN Manchester:** No.
- **TN St. Marie:** Not at present time.
- **Berlin Area School District:** Some projects in progress now.

7. What ideas do you have for your community to mitigate natural disasters?

- **CO Emergency Management:** None at this time.
- **CO IT:** Continue discussions of groups to think more about the topic and the plan.
- **CO Land Use, Planning & Zoning:** Protect wetlands, especially shoreland wetlands.
- **CI Berlin (Ludolph):** Pre-disaster mitigation: localized flood risk reduction projects. Enhancing the Bohn Farm wildlife area by establishing additional Floodwater Detention and Retention basins wherever feasible. Exploring technical support to leverage available resources for green infrastructure and other potential opportunities that may not yet be on the radar is essential. Additionally, empowering the Community Development Authority to acquire blighted properties within or adjacent to the General Floodplain District will significantly reduce impervious surfaces, promoting a healthier environment.
- **CI Berlin DPW (Zabel):** Natural disaster training in areas that apply to our geography and public awareness to the possible threats we could be subjected to.
- **CI Green Lake:** None.
- **CI Princeton:** I would like to see some type of improvements done to deal with flooding. After the last high water event, the county Highway Department installed a "flood gate" adjacent to the bridge on Highways 23/73 over the Fox River, which is supposed to stop back flow of water into the storm sewers. Fortunately, we haven't had the opportunity to see how it works as we haven't had high water since that time. Any measures to address flooding along the Fox River as it narrows and flows through the community would be a welcome addition.
- **VI Marquette:** Totally unaware of county resources to assist in emergency situations. Have not been invited to participate in county emergency planning. Would like to resolve this for sure.
- **TN Berlin:** Good maintenance for roads.

Appendix G: Community Input

- **TN Brooklyn:** Keeping a good road maintenance program and erosion control methods to ensure public safety and lessen environmental impact.
- **TN Mackford:** The county has approached us about putting up snow fences in our town. Farmers could be encouraged to use methods to help control erosion.
- **TN St. Marie:** Extra funds to be able to use when natural disasters happen.
- **Berlin Area School District:** Work together with Emergency Services.

ROAD PROJECT FORMS RETURNED, NOTING NEW PROJECTS THAT HAVE BEEN ADDED TO THE PLAN:

- CO Highway Department
- CI Berlin
- VI Marquette
- TN Mackford

ROAD PROJECT FORMS RETURNED, NOTING NO PROJECTS / NOTHING LISTED:

- CO Health and Human Services
- CO Information Technology
- CI Markesan
- CI Princeton
- TN Seneca
- TN St. Marie
- Green Lake Rotary Club

GOVERNMENTAL & PUBLIC INPUT

Planning creates a way to solicit and consider input from diverse interests. Involving stakeholders is essential to building community-wide support for the plan. In addition to emergency managers, the planning process involves local and state agencies (e.g., public works and floodplain administration); agencies that have authority to regulate development; neighboring communities; businesses and academia; private organizations such as utilities and major employers; and non-profit and community-based organizations that work directly with and/or provide support to underserved and socially vulnerable populations.

Vital information provided by these groups helps ensure that the plan is workable within the framework of the community's priorities.

ADOPTION OF THE PLAN

Local units of government participating in a multi-jurisdictional planning process must adopt the final plan for the municipality to be eligible for future mitigation funds including grants available through FEMA. **Local units (i.e., towns, villages, cities) that do not participate would be ineligible to receive such funds until such time that they meet these requirements and adopt a plan.**

HISTORY

Floods and storms have killed over 2,000 people in the U.S. in the last decade. Hundreds of disasters have occurred in

the past 25 years, costing the country millions of dollars every week.

MITIGATION PLANNING FACTS

- ▶ A 2019 study has shown that mitigation saves society an average of \$6 for every \$1 spent through federal mitigation grant programs.
- ▶ Rigorous building standards in communities across the country are saving \$11 per \$1 spent simply by adopting model codes. Other building measures save \$4 per \$1 spent.
- ▶ Hazard mitigation plans and projects reduce overall risks to the population and structures while also reducing reliance on funding from actual disaster declarations.
- ▶ According to the National Oceanographic and Atmospheric Administration, cumulative costs for weather and climate disasters in the United States during 2017 were \$306.2 billion - making it the costliest year ever.

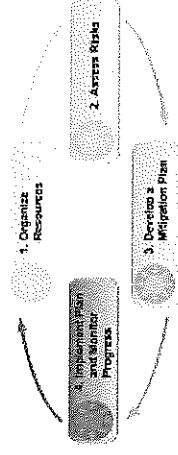
NOTES:

For further information please contact

**Green Lake County
Emergency Management**
571 County Rd. A
Berlin, WI 54941
(920) 361-5416

Pre-Disaster Mitigation Planning

*Creating Safe,
Sustainable
Communities*



Prepared by:
Green Lake County Emergency Management
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WHAT IS HAZARD MITIGATION?

Hazard mitigation is sustained action taken to reduce or eliminate long-term risk to people and their property from hazards.

Floods, ice storms, tornadoes and forest/wild fires – these are all functions of the natural environment and only become hazardous when they threaten our “built” environment with destruction. These hazards will occur one day. When this happens, the results can be appreciably different from past outcomes if our community takes action today.

RISK REDUCTION

The goal of risk reduction is to reduce the risk to life and property, which includes existing structures and future construction, in the pre- and post-disaster environments. This is achieved through regulations, local ordinances, land use and building practices and mitigation projects that reduce or eliminate long-term risk from hazards and their effects.

WHY DEVELOP A PLAN?

Mitigation plans form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction and repeated damage. The planning process is as important as the plan itself. It creates a framework for risk-based decision-making to reduce damages to lives,

property and the economy from future disasters.

State, tribal and local governments are required to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance. The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288), as amended by the Disaster Mitigation Act of 2000, provides the legal basis for state, local and tribal governments to undertake a risk-based approach to reducing risks from natural hazards through mitigation planning.

Like many other people, the residents of Merkel, Texas didn't think much about flooding. Besides, it had not flooded in Merkel for 45 years. It wasn't until the heavy summer rains came that residents realized flooding can hit anyone, at any time. After the flooding finally subsided, officials knew they had to do something: mitigate.

REQUIRED INFORMATION

- Flood maps
- Identification of potential hazards
- History of occurrences
- Hazard impact projections
- Location of critical facilities
- Identification of high-risk facilities (schools, fire station, nursing homes, etc.)
- Location of repetitive loss structures
- Development & prioritization of mitigation projects
- Other materials as identified

HAZARD MITIGATION PLANNING PROCESS

1. Organize Resources- From the start, communities should focus the resources needed for a successful mitigation planning process. Essential steps include identifying and organizing interested members of the community, particularly those with the technical expertise required during the planning process.

2. Assess Risks- Communities next need to identify the characteristics and potential consequences of natural hazards. It is important to understand how much of the community can be affected by specific hazards and what the likely impacts would be for important community assets.

3. Develop a Mitigation Plan- Armed with an understanding of the risks posed by natural hazards, communities need to determine what their priorities should be and then look at possible ways to avoid or minimize the undesired effects. The result is a natural hazard mitigation plan and strategy for implementation.

4. Implement the Plan & Monitor Progress- Communities can bring the plan to life in a variety of ways ranging from implementing specific mitigation projects to changes in the day-to-day operation of the local government. To ensure the success of an on-going program, it is critical that the plan remains effective. Thus, it is important to conduct periodic evaluations and make revisions as needed.

APORTES GUBERNAMENTALES Y PÚBLICOS

La planificación es un proceso organizado para solicitar y considerar aportes de diversos intereses. Involucrar a las partes interesadas es esencial para generar apoyo para el plan en toda la comunidad. Además de los administradores de emergencias, el proceso de planificación involucra a agencias locales y estatales (por ejemplo, obras públicas y administración de llanuras aluviales); agencias que tienen autoridad para regular el desarrollo; comunidades vecinas; empresas y academia; organizaciones privadas de servicios públicos y principales empleadores; y organizaciones comunitarias y sin fines de lucro que trabajan directamente y/o brindan apoyo a poblaciones desatendidas y socialmente vulnerables.

La información vital que proporcionan estos grupos ayuda a garantizar que el plan sea viable dentro del marco de las prioridades de la comunidad.

ADOPCIÓN DEL PLAN

Las unidades locales de gobierno que participan en un proceso de planificación multijurisdiccional deben adoptar el plan final para que el municipio sea elegible para fondos de mitigación futuros, incluyendo las subvenciones disponibles a través de FEMA. Las unidades locales (es decir, pueblos, aldeas, ciudades) que no participen serán inelegibles para recibir dichos fondos hasta que cumplan con estos requisitos y adopten un plan.

HISTORIA

Inundaciones y tormentas han matado a más de 2,000 personas en EE.UU. en la última década. Cientos de desastres han ocurrido en

los últimos 25 años, costándole al país millones semanalmente.

DATOS SOBRE LA PLANIFICACIÓN DE MITIGACIÓN

- ▶ Un estudio de 2019 ha demostrado que la mitigación ahorra a la sociedad un promedio de \$6 por cada \$1 gastado a través de programas federales de subvenciones para mitigación.
- ▶ Los rigurosos estándares de construcción en comunidades de todo el país están ahorrando \$11 por cada \$1 gastado, simplemente por adoptar códigos modelo. Otras medidas de construcción ahorran \$4 por cada \$1 gastado.
- ▶ Los planes y proyectos de mitigación de riesgos reducen los riesgos generales para la población y las estructuras, al mismo tiempo que disminuyen la dependencia de los fondos provenientes de declaraciones de desastres reales.
- ▶ Según la Administración Nacional Oceánica y Atmosférica, los costos acumulativos de desastres climáticos y meteorológicos en Estados Unidos de 2021 a 2023 fueron de \$433 mil millones, continuando la tendencia de costos de desastres cada vez más altos.

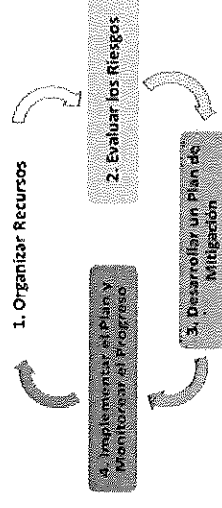
NOTAS:

Para más información, por favor contacte:

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Planificación de Mitigación antes de Desastres

Creando Comunidades Seguras y Sostenibles



Preparado por:

Green Lake County
Emergency Management
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¿QUÉ ES LA MITIGACIÓN DE RIESGOS?

La mitigación de riesgos es una acción sostenida que se toma para reducir o eliminar el riesgo a largo plazo para las personas y sus propiedades a partir de peligros.

Las inundaciones, las tormentas de hielo, los tornados y los incendios forestales son todas funciones del entorno natural y solo se convierten en peligros cuando amenazan nuestro entorno "construido" con destrucción. Estos peligros ocurrirán algún día. Cuando esto suceda, los resultados pueden ser notablemente diferentes de los resultados pasados si nuestra comunidad toma medidas hoy.

REDUCCIÓN DEL RIESGO

La reducción del riesgo tiene como objetivo disminuir el riesgo para la vida y la propiedad, incluyendo estructuras existentes y futuras construcciones, tanto en entornos previos como posteriores a desastres. Esto se logra mediante regulaciones, ordenanzas locales, prácticas de uso del suelo y construcción, y proyectos de mitigación que reducen o eliminan los riesgos a largo plazo provenientes de peligros y sus efectos.

¿POR QUÉ DESARROLLAR UN PLAN?

Los planes de mitigación forman la base de la estrategia a largo plazo de una comunidad para reducir las pérdidas por desastres y romper el ciclo de daño por desastres, reconstrucción y daños repetidos. El proceso de planificación es tan importante como el plan en sí. Crea un marco para la toma de decisiones basada en el riesgo para reducir los daños a vidas, propiedades y la economía de futuros desastres.

Los gobiernos estatales, tribales y locales están obligados a desarrollar un plan de mitigación de riesgos como condición para recibir ciertos tipos de asistencia para desastres no emergentes. La Ley Robert T. Stafford de Alivio de Desastres y Asistencia de Emergencia (Ley Pública 93-288), enmendada por la Ley de Mitigación de Desastres del 2000, proporciona la base legal para que los gobiernos estatales, locales y tribales adopten un enfoque basado en el riesgo para reducir los riesgos de desastres naturales mediante la planificación de mitigación.

Como muchas otras personas, los residentes de Merkel, Texas, no pensaban mucho en las inundaciones. Además, no había habido inundaciones en Merkel durante 45 años. No fue hasta que llegaron las fuertes lluvias de verano que los residentes se dieron cuenta de que las inundaciones podrían afectar a cualquiera en cualquier momento. Después de que las inundaciones finalmente disminuyeron los funcionarios sabían que tenían que hacer algo: mitigar.

INFORMACIÓN REQUERIDA

- Mapas de Inundaciones
- Identificación de peligros potenciales
- Historial de ocurrencias
- Proyecciones de impacto de riesgos
- Ubicación de instalaciones críticas
- Identificación de instalaciones de alto riesgo (escuelas, estaciones de bomberos, hogares de ancianos, etc.)
- Ubicación de estructuras con pérdidas repetitivas
- Desarrollo y priorización de proyectos de mitigación
- Otros materiales identificados

PROCESO DE PLANIFICACIÓN DE MITIGACIÓN DE RIESGOS

1. Organizar Recursos: Desde el principio, las comunidades deben centrarse en los recursos necesarios para un proceso de planificación de mitigación exitoso. Los pasos esenciales incluyen identificar y organizar a los miembros de la comunidad interesados, especialmente aquellos con la experiencia técnica requerida durante el proceso de planificación.

2. Evaluar los Riesgos: Las comunidades deben identificar a continuación las características y las posibles consecuencias de los peligros naturales. Es crucial entender cuánto de la comunidad puede ser afectado por peligros específicos y los impactos probables en los activos importantes de la comunidad.

3. Desarrollar un Plan de Mitigación: Armadas con una comprensión de los riesgos que representan los peligros naturales, las comunidades necesitan determinar sus prioridades y luego examinar posibles formas de evitar o minimizar los efectos no deseados. El resultado es un plan de mitigación de riesgos naturales y una estrategia para su implementación.

4. Implementar el Plan y Monitorear el Progreso: Las comunidades pueden dar vida al plan de diversas maneras, que van desde la implementación de proyectos de mitigación específicos hasta cambios en el funcionamiento diario del gobierno local. Para garantizar el éxito de un programa en curso, el plan debe permanecer efectivo. Por lo tanto, realizar evaluaciones periódicas y realizar revisiones según sea necesario es importante.

Appendix H: Inter-Revision Updates

This plan will undergo major revisions every five years per the FEMA requirements. Green Lake County has recognized that there may be information that should be added to the plan between the five-year updates but that the costs of continuous updates, printing and distribution can be excessive. This section is designed to hold that information that is gathered between the five-year updates. It is felt that only having to reproduce and distribute one section between updates will lessen the costs to the county.

Potential Areas of Concern Identified:

- No additional concerns have been identified to date.

Appendix G: Community Input