

SEWRPC Community Assistance Planning Report No. 326 (2nd Edition)

WASHINGTON COUNTY HAZARD MITIGATION PLAN UPDATE

Chapter 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

In December 2020, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) and the Washington County Department of Emergency Management agreed to cooperatively prepare an update to the 2018 all hazards mitigation plan for Washington County. The plan is designed to be consistent with the guidelines of the Wisconsin Department of Military Affairs, Division of Emergency Management (DMA, DEM), and the Federal Emergency Management Agency (FEMA).¹ As such, the plan aligns with the requirements and procedures defined in the amended Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) of Title 44 Code of Federal Regulations (CFR) Section 201 “Mitigation Planning” and Section 201.6, “Local Mitigation Plans.”² Additionally, the plan focuses on natural hazard mitigation which the Wisconsin Division of Emergency Management (WEM) and FEMA recommend as an option to single hazard mitigation planning. Natural weather hazard conditions, which include flooding; severe weather conditions, including windstorms, tornadoes, periods of extreme heat or cold, drought, and winter storms were specifically considered for the preparation of this hazard mitigation plan update. While the

¹ *Federal Emergency Management Agency, State and Local Mitigation Planning How-to-Guide, “Understanding Your Risks: Identifying Hazards and Estimating Losses,” Publication No. FEMA 386-2, September 3, 2015; Federal Emergency Management Agency, Multi-jurisdictional Mitigation Planning, March 10, 2009; Federal Emergency Management Agency, Local Mitigation Planning Policy Guide, April 2022.*

² *On April 19, 2022, FEMA updated the State and Local Mitigation Planning Policy Guides (policies). The policies are the official interpretation of the requirements in the Stafford Act, as amended, specifically Title 44 CFR Section 201.*

plan considered all of the potential hazards, it must be recognized that only limited mitigation actions were feasible for some of these hazards, since they are not site-specific or repetitive in nature.

1.2 OVERVIEW OF STUDY AREA

Washington County is located in southeastern Wisconsin, and is bordered on the east by Ozaukee County, on the south by Waukesha County, on the west by Dodge County, and on the north by Fond du Lac and Sheboygan Counties.

Washington County covers about 436 square miles and contains all or parts of two cities, all, or parts of six villages, and twelve towns as shown on [Map 1.1](#). There are parts of four major watersheds and a total of about 4,500 acres of inland surface waters within the County. The County has a diversified natural resource base, including several inland lakes, as well as major river systems.

The majority of the population resides in three population centers: one in the central portion of the County within the City of West Bend, another in the west-central portion of the County in the City of Hartford and the Village of Slinger, and a third in the southeastern portion of the County in the Villages of Germantown and Richfield. However, population centers are also scattered through the County including the Villages of Jackson, Kewaskum, and Newburg and in the partially urbanized town areas. Much of the land in the County remains in agriculture.

1.3 RELATIONSHIP OF HAZARD MITIGATION PLANNING TO EMERGENCY OPERATIONS PLANNING AND COUNTY REGULATIONS

The focus of this planning effort is natural weather hazard mitigation measures. Such measures generally involve lasting, often permanent, measures designed to reduce the exposure to, probability of, or potential loss from hazardous events. Such measures tend to focus on actions related to where and how to build structures, education to reduce losses or injury, and programs to improve the safety of identified hazard areas. A hazard mitigation plan outlines the strategy for mitigating the hazards potentially impacting a county or community.

Emergency Operations Planning

The mitigation plan should be distinguished from, but compatible with, an emergency operations plan. Such a plan is defined as a plan which describes how people and property will be protected in disaster and

disaster threat situations; details who is responsible for carrying out specific actions; identifies the personnel, equipment, facilities, supplies, and other resources available for use in the disaster; and outlines how all actions will be coordinated. Numerous such emergency operation plans have been developed at the jurisdictional level, and often involve mutual assistance and cooperation agreements between local units of government in adjoining municipalities, both within and outside of Washington County. Plans for mitigating hazards are related to emergency operation activities involving short-term recovery decision-making, since such activities may highlight prospects for implementation of a mitigation strategy aimed at reducing long-term risk to human life and property.

Washington County Comprehensive Emergency Management Plan

Washington County has developed a comprehensive emergency management plan (CEMP) which sets forth an all-hazards action plan. The CEMP provides the framework for the Washington County government and partner entities to respond to public emergencies within the local jurisdiction and regionally. The CEMP establishes a unified command and control structure for emergency response operations to ensure a coordinated and effective response. The CEMP also incorporates the concepts and processes of the National Incident Management System (NIMS) as the standard for emergency response operations.

In addition, many of the local units of government have developed emergency operations plans and/or programs which complement the County CEMP, and which also set forth procedures and actions to deal with a range of situations and events. Washington County's emergency operations plan notes that the County is exposed to many hazards that have the potential for disrupting the community, causing damage, and creating casualties. In addition to flooding, the plan recognizes that the County is vulnerable to other natural hazards, including tornadoes and severe weather; technological hazards; accidents involving hazardous materials; terrorism and civil disorder; and utility hazards, such as power failure and water shortages or contamination.

The County CEMP includes procedures and protocols to respond to disasters or large-scale emergencies. The purpose and goal of the County emergency operations plan is to assist the government in protecting lives, property, and the environment from major emergencies through addressing the areas of mitigation, preparedness, response, and recovery. This basic plan is intended as the core of the Washington County emergency operations program. It provides policies for department and agency managers and emergency management professionals to use in planning and actual operations. In response to a disaster or large-scale emergency, all local government forces, including law enforcement, fire, medical, health, public works, and others, are a part of the County's emergency management organization, and will be the first line responders

to such an emergency. When the emergency or disaster exceeds the capability of the local governments and the County to respond, the County will request assistance from the State of Wisconsin on behalf of the County and the affected municipalities. The Federal government will aid the State of Wisconsin when all local and State resources have been exhausted.

Relationship of County Regulations and Programs to Hazard Mitigation Planning

The current ordinances and programs which are most directly related to hazard mitigation and plan implementation include general zoning, floodplain zoning, shoreland and shoreland-wetland zoning regulations, and stormwater management requirements. These ordinances and programs impact how and where development occurs in Washington County and has a significant role in protecting and/or preventing development in potentially hazardous locations. These ordinances and programs are administered by Washington County and the local units of government in the County as indicated in [Table 1.1](#) and described below.

General Zoning

Cities in Wisconsin are granted general, or comprehensive, zoning powers under Section 62.23 of the *Wisconsin Statutes*. The same powers are granted to villages under Section 61.35 of the *Wisconsin Statutes*. Counties are granted general zoning powers within their unincorporated areas under Section 59.69 of the *Wisconsin Statutes*. However, a county zoning ordinance becomes effective only in those towns that ratify the county ordinance. Each city, village, and town in Washington County has adopted and enforces its own zoning ordinance. In Washington County, the county shoreland and floodplain zoning ordinances apply to shoreland areas in addition to the town general zoning ordinances.

County Shoreland, Shoreland-Wetland, and Floodplain Zoning Ordinance

Under Section 59.692 of the *Wisconsin Statutes*, counties are responsible for regulating shoreland areas within unincorporated (town) areas. Shorelands are defined as all land lying within 1,000 feet of the ordinary highwater mark (OHWM) of a navigable lake, pond, or flowage; or within 300 feet of the OHWM of a navigable river or stream or to the landward side of the floodplain, whichever distance is greater. Standards for county shoreland zoning ordinances are set forth in Chapter NR 115 of the *Wisconsin Administrative Code*.³ In addition, Chapter NR 115 requires that counties place all wetlands within the statutory shoreland

³ Chapter NR 115 sets forth requirements regarding lot sizes and building setbacks; restrictions on cutting of trees and shrubbery; and restrictions on filling, grading, lagooning, dredging, ditching, and excavating that must be incorporated into county shoreland zoning regulations.

zoning jurisdiction area into a wetland conservancy zoning district to ensure their preservation after completion of wetland inventories by the WDNR.

The Washington County Shoreland, Wetland, and Floodplain Zoning Ordinance is set forth in Chapter 275 of the *Washington County Code*. The County's shoreland zoning ordinance applies to shorelands, shoreland-wetlands, and floodplains in all unincorporated (town) areas within the County, generally protecting these areas from intensive development. The ordinance includes restrictions on uses in wetlands located within the shoreland and limits the types of uses that can occur within the 100-year floodplain to prevent damage to structures and property and to protect the floodwater conveyance and storage capacity of floodplains. Most structures must be set back a minimum of 75 feet from the OHWM of navigable rivers, streams, and water bodies. The ordinance was amended in 2016 to comply with recent changes to State law limiting the ability of counties to enforce shoreland zoning regulations that are more restrictive than State standards.

The city and village shoreland regulations generally require a 50-foot building setback from navigable waters on annexed shorelands within the city or village. Where County regulations continue in effect, the city or village is responsible for enforcing the County ordinance. Cities and villages are also required to regulate wetlands within shoreland areas, including those that were in the city or village prior to 1982, under Chapter NR 117 of the *Wisconsin Administrative Code*; and to enforce the minimum floodplain standards set forth in Chapter NR 116 of the *Wisconsin Administrative Code* within all floodplain areas of the city or village.

1.4 SCOPE AND PURPOSE OF PLAN UPDATE

This plan updates the 2018 Washington County hazard mitigation plan.⁴ The scope of this plan is countywide, and is intended to set forth the most appropriate, feasible, and effective hazard mitigation strategy for Washington County and the local units of government within the County. The plan complements and refines the *State Hazard Mitigation Plan of Wisconsin*⁵ and focuses on local conditions and natural weather hazards likely to occur or be experienced within Washington County and Southeastern Wisconsin. As such, the County and SEWRPC will evaluate, update, and revise existing mitigation strategies as well as develop new local mitigation strategies specific to a community's exposure and impacts from identified natural hazards.

⁴ SEWRPC Community Assistance Planning Report No. 326, *Washington County Hazard Mitigation Plan, March 2018*.

⁵ *Wisconsin Emergency Management, State Hazard Mitigation Plan of Wisconsin, December 2021*.

The plan is developed as a multi-jurisdictional plan, covering Washington County and all of the municipalities located within the County. The mitigation planning requirements identified in 44 CFR, Section 201.6 "Local Mitigation Plans" requires all jurisdictions participating in a multi-jurisdictional hazard mitigation plan to participate in the planning process. Examples of participation include, but are not limited to, attending planning meetings, contributing research, data, or other information, and commenting and reviewing drafts of the plan.

The municipalities that participated in the development of the Washington County hazard mitigation plan update include the Cities of Hartford and West Bend; the Villages of Germantown, Jackson, Kewaskum, Newburg, Richfield, and Slinger; and the Towns of Addison, Barton, Erin, Farmington, Germantown, Hartford, Jackson, Kewaskum, Polk, Trenton, Wayne, and West Bend.

The plan was prepared by the staffs of the Washington County Emergency Management Office and SEWRPC. In preparing the plan update, the County involved all appropriate County departments as needed. In addition, the planning was coordinated with the related activities of other concerned units and agencies of government. The plan was developed under the guidance of the Washington County Hazard Mitigation Plan Local Planning Team (LPT), which was created by the County specifically for plan development purposes. This team was comprised of elected and appointed officials, agency and business representatives, and citizens from throughout the County knowledgeable in hazard mitigation matters. [Table 1.2](#) summarizes municipal participation in the planning process. For more complete details on the level of participation of local citizens and community groups in the public involvement process, and summary notes for each LPT meeting, see [Appendix A](#).

The original Washington County Hazard Mitigation Plan (2018) was developed and approved as a multi-jurisdictional all hazards mitigation plan under FEMA's previous Pre-Disaster Mitigation grant program. It too was a collective effort of a number of governmental and non-governmental agencies, organizations, and stakeholders under the guidance of an LPT. In addition to formation and active participation of the LPT, the original plan development process included the following steps:

- Collation and review of all pertinent reports relating to the hazard mitigation activities in Washington County
- Inventory mapping and analysis of hazards pertinent to Washington County

- Identification of the facilities and ongoing programs related to hazard mitigation
- Assessment of the vulnerability of County assets to each hazard
- Identification of and prioritization of needed facilities and programs
- Consideration of issues relating to neighboring municipalities and units of government likely to be affected or influenced by natural hazards within Washington County
- Development and evaluation of alternatives to address the identified needs
- The development of plan recommendations and an implementation plan
- Development of a public informational and educational program and program of public consultation to guide the plan development and implementation program, including a prioritization of the recommended plan elements
- Adoption of a strategy for monitoring and refining the plan

This plan update was developed under FEMA’s new Building Resilient and Innovative Communities (BRIC) planning grant program.⁶ The BRIC program seeks to fund effective and innovative projects that will reduce risk and increase resilience and serve as a catalyst to encourage the whole community to invest in and adopt policies related to mitigation. Additionally, the BRIC program encourages communities to build partnerships with local units of government, business, and other stakeholders that have a shared interest and obligation in protecting and enhancing the safety, resilience, and economic stability of Washington County. The BRIC programs guiding principles are:⁷

⁶ *The Disaster Recovery Reform Act of 2018 (DRRA) amended Section 203 (Pre-Disaster Mitigation program) of the Stafford Act. Through DRRRA Section 1234, National Public Infrastructure Pre-Disaster Hazard Mitigation, FEMA discontinued the Pre-Disaster Mitigation grant program and established the Building Resilient Infrastructure and Communities (BRIC) grant program.*

⁷ *FEMA, Mitigation Assistance: Building Resilient Infrastructure and Communities FEMA POLICY FP-104-008-05.*

1. Support state and local governments, tribes, and territories (SLTT) through capability-and capacity-building to enable them to identify mitigation actions and implement projects that reduce risks posed by natural hazards
2. Encourage and enable innovation while allowing flexibility, consistency, and effectiveness
3. Promote partnerships and enable high-impact investments to reduce risk from natural hazards with a focus on critical services and facilities, public infrastructure, public safety, public health, and communities
4. Provide a significant opportunity to reduce future losses and minimize impacts on the Disaster Relief Fund (ORF)
5. Promote equity, including by helping members of disadvantaged groups and prioritizing 40 percent of the benefits to disadvantaged communities
6. Support the adoption and enforcement of building codes, standards, and policies that will protect the health, safety, and general welfare of the public, considering future conditions, prominently including the effects of climate change, and have long-lasting impacts on community risk reduction, including for critical services and facilities and for future disaster costs

1.5 PLAN MAINTENANCE AND IMPLEMENTATION ACTIVITIES

Outreach Activities (Ongoing)

Since the adoption of the initial hazard mitigation plan, local municipalities in Washington County have conducted outreach activities to educate the public about emergency preparedness, including hazard mitigation. The most recent activities are summarized in [Table 1.3](#). The most common methods used by the communities include making information available through posting on the municipality's website and mailing or emailing periodic newsletters to residents. These methods have been used to distribute information on hazard awareness and preparedness related to topics such as flooding, winter weather awareness, tornado awareness, hazardous materials awareness, heat awareness, pandemic influenza, fire safety, and family preparedness. In recent years, some of the local municipalities have also begun reaching the public through social media sites such as Facebook® and Twitter®.

Implementation Activities (Ongoing)

Since the adoption of the current hazard mitigation plan (2018), Washington County and the local municipalities have conducted several projects intended to implement recommendations of the plan. These projects are summarized in [Table 1.4](#).

1.6 REVIEW OF PLAN DEVELOPMENT EFFORTS, PROCESS AND ADOPTION

As previously noted, the Washington County hazard mitigation plan was prepared under the guidance of a LPT comprised of representatives of the County and all of the communities within the County, as well as County businesses and agency representatives. The LPT met three times during the plan preparation period to provide input on the types of hazards to be considered, the appropriate mitigation strategies, and to review the draft report chapters. The report chapters were then refined to reflect the comments and recommendations of the Team.

As draft chapters of the plan were completed, copies of the chapters were placed in downloadable form on the SEWRPC website. A webpage was available on this website on which members of the public could ask questions and submit comments on the draft plan update. Following completion of the community profiles and the risk and vulnerability assessments sections of the plan and review by the LPT, a public informational meeting was held to review these sections of the plan with local officials, stakeholders, and citizens and to solicit their input.

After the plan was completed in draft form, an additional public informational meeting was held to review the entire draft plan with local officials, stakeholders, and citizens and solicit their input. In addition, copies of the draft plan were made available at the offices of the Washington County Department of Emergency Management and on the SEWRPC website.

Once FEMA determined that the plan was approvable upon adoption, copies of the plan were sent to each of the local units of government requesting that they adopt the plan in order to retain future eligibility for mitigation funding. Funding to complete this plan was provided by the BRIC planning program administered by WEM. In addition, County and SEWRPC staffs were available to meet with communities on an individual basis to review the plan update and consider adoption and implementation steps. Copies of the adopted resolutions approving the plan by the local units of government are included in [Appendix B](#).

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TABLES

Table 1.1
Regulations and Programs Within Washington County Related to Hazard Mitigation: 2022

Municipality	General Zoning	Floodplain Zoning	Stormwater Management Ordinance or Plan	Shoreland or Shoreland Wetland Zoning	Emergency Operations Ordinance or Plan
Washington County	Adopted	Adopted	County Code	Adopted	Adopted
City of Hartford	Adopted	Adopted	City Code	Adopted	Adopted
City of West Bent	Adopted	Adopted	City Code	Adopted	Adopted
Village of Germantown	Adopted	Adopted	Village Code	Adopted	Adopted
Village of Jackson	Adopted	Adopted	Village Code	Adopted	Adopted
Village of Kewaskum	Adopted	Adopted	Village Code	Adopted	Adopted
Village of Newburg	Adopted	Adopted	Village Code	Adopted	Adopted
Village of Richfield	Adopted	Adopted	Village Code	Adopted	Adopted
Village of Slinger	Adopted	Adopted	Village Code	Adopted	Adopted
Town of Addison	Adopted	County Ordinance	Town Code	County Ordinance	Adopted
Town of Barton	Adopted	County Ordinance	County Code	County Ordinance	Adopted
Town of Erin	Adopted	County Ordinance	County Code	County Ordinance	Adopted
Town of Farmington	Adopted	County Ordinance	Town Code	County Ordinance	Adopted
Town of Germantown	Adopted	County Ordinance	County Code	County Ordinance	Adopted
Town of Hartford	Adopted	County Ordinance	County Code	County Ordinance	Adopted
Town of Jackson	Adopted	County Ordinance	Town Code	County Ordinance	Adopted
Town of Kewaskum	Adopted	County Ordinance	Town Code	County Ordinance	Adopted
Town of Polk	Adopted	County Ordinance	Town Code	County Ordinance	Adopted
Town of Trenton	Adopted	County Ordinance	Town Code	County Ordinance	Adopted
Town of Wayne	Adopted	County Ordinance	Town Ordinance	County Ordinance	Adopted
Town of West Bend	Adopted	County Ordinance	Town Ordinance	County Ordinance	Adopted

Source: Washington County's Municipal Webpages and SEWRPC

Table 1.2
Participation in the Washington County Hazard Mitigation Plan Update Planning Process

Civil Division	Attendance at Local Planning Team Meetings				Provision of Data ^a	Review of Report
	June 7, 2022	February 1, 2023				
Cities						
Hartford	--					
West Bend	X					
Villages						
Germantown	--					
Jackson	--					
Kewaskum	X					
Newburg	--					
Richfield	--					
Slinger	--					
Towns						
Addison	X					
Barton	X					
Erin	--					
Farmington	X					
Germantown	X					
Hartford	X					
Jackson	--					
Kewaskum	--					
Polk	X					
Trenton	--					
Wayne	X					
West Bend	X					
County						
Washington County	X					
Other	--					

Note: X indicates participation by at least one representative of the municipality or organization.

^a Provision of data includes providing information on hazards experienced, projects undertaken, and outreach efforts as well as sharing of relevant plans, reports, and concerns.

Source: SEWRPC

Table 1.3
Outreach Activities by Community in Washington County
Related or Beneficial to Hazard Mitigation

Community	Activity
Washington County	County website County Facebook page County Twitter account County's Emergency Management Department webpage County Quarterly Newsletter County Newspaper(s) County's Stormwater Management Program Washington-Ozaukee Public Health Department Emergency Preparedness Website and Social Media Outreach Informational meeting (open house) for the Cedar Creek Watershed HUC 10 Floodplain Study and Map Amendments in Washington County Public Hearing for Chapter 275 (Shoreland-Wetland-Floodplain Zoning) Amendments and Floodplain Map Adoption for the Cedar Creek Floodplain Study
City of Hartford	City website Email and text message information and alert notices (Notify Me) City Facebook page City Twitter account City's Stormwater Management Program City Fire Department Facebook page and webpage that provides additional emergency preparedness resources and information City Police Department Facebook page Hartford Community Development Authority (HCDA) Weatherization Program Housing Rehab Loan Program
City of West Bend	City website City Facebook page City Twitter account City Emergency Government Management Program City Police Department Facebook page City Newspaper "West Bend Daily News"
Village of Germantown	Village website Village Facebook page Email and text message information and alert notices (Notify Me) Village Police Department Facebook page Village Fire Department Facebook page and webpage with FEMA resource link Village Quarterly Newsletter
Village of Jackson	Village website Weekly and Quarterly Newsletters West Bend Daily Newspaper Village Police Department Facebook page
Village of Kewaskum	Village website Village Police Department Facebook page Village Newspaper "The Statesman"
Village of Newburg	Village website Board of Emergency Management Village Monthly Newsletter Fire Department Facebook page Police Department Facebook page

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Table 1.3 (Continued)

Community	Activity
Village of Richfield	Village website Planning and Zoning Department webpage provides additional resources related to flood mitigation Village Facebook page Village Twitter account Village Quarterly Newsletter Email and text message information and alert notices (Notify Me)
Village of Slinger	Village website
Town of Addison	Town website
Town of Barton	Town website Town Yearly Newsletter
Town of Erin	Town website Town Newsletter
Town of Farmington	Town website
Town of Germantown	Town website
Town of Hartford	Town website
Town of Jackson	Town website
Town of Kewaskum	Town website
Town of Polk	Town website
Town of Trenton	Town website
Town of Wayne	Town website
Town of West Bend	Town website

Source: Community Websites, Washington County, and SEWRPC

Table 1.4
Hazard Mitigation Activities in Washington County: 2018-2023

Community	Project	Cost	Funding Source	Completion Date
Washington County	Updating Floodplain Studies: <ul style="list-style-type: none"> • Cedar Creek (Adopted 2022) • Milwaukee River • Upper Rock River • Tributaries of the Menomonee River (ongoing) Installment of LiDAR technology (2015)		WDNR, FEMA	February, 2022
City of Hartford				
City of West Bend				
Village of Germantown				
Village of Jackson				
Village of Kewaskum				
Village of Newburg				
Village of Richfield				
Village of Slinger				
Town of Addison				
Town of Barton				

Table continued on next page.

Table 1.4 (Continued)

Community	Project	Cost	Funding Source	Completion Date
Town of Erin				
Town of Farmington				
Town of Germantown				
Town of Hartford				
Town of Jackson				
Town of Kewaskum				
Town of Polk				
Town of Trenton				
Town of Wayne				
Town of West Bend				

Source: Washington County and SEWRPC

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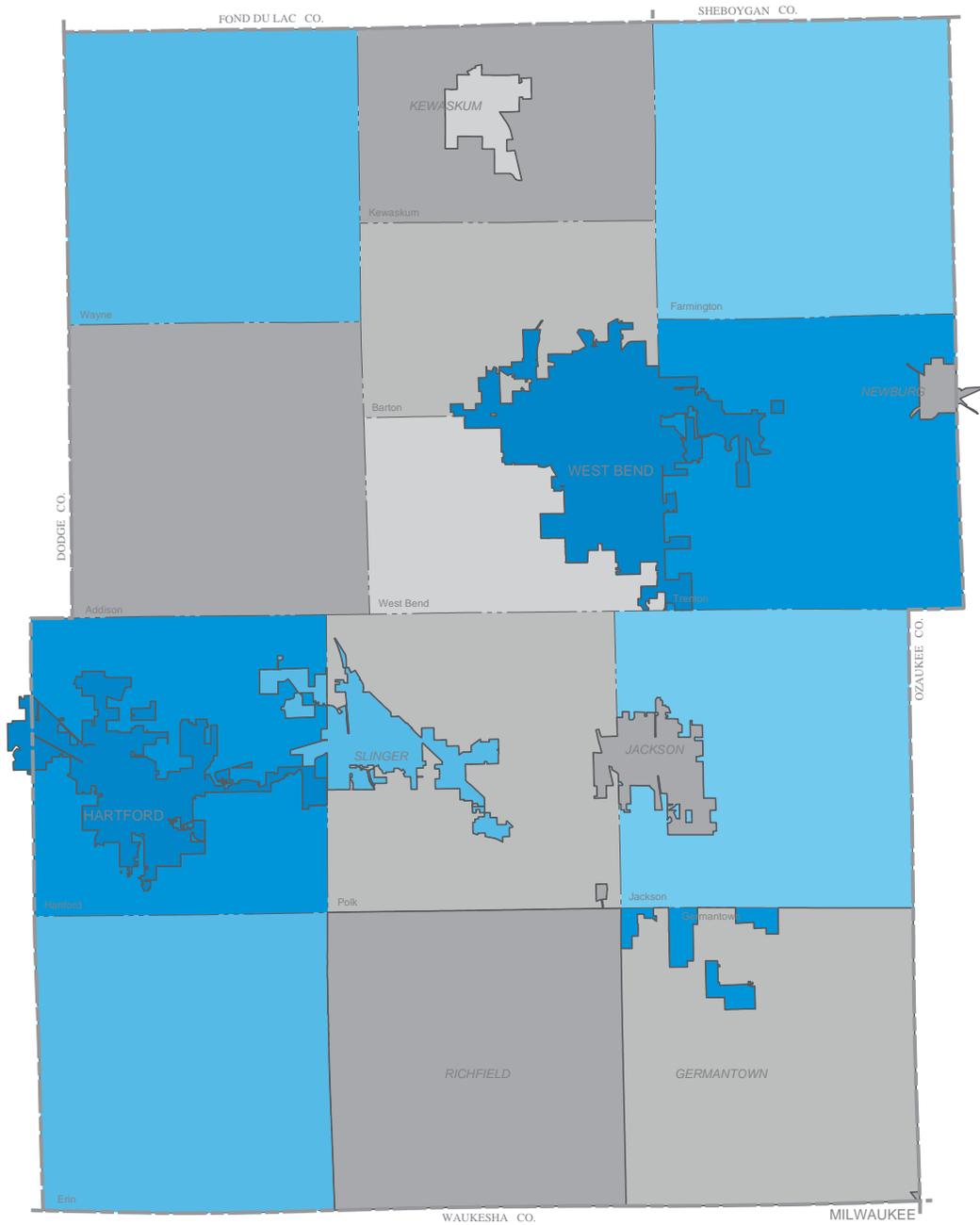
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MAPS

Map 1.1
Civil Division Boundaries in Washington County: 2022



LOCAL GOVERNMENT TYPE

CITY: WEST BEND

VILLAGE: SLINGER

TOWN: Polk

