Southeastern Wisconsin

Regional Planning Commission

Kenosha County Hazard Mitigation Plan Update:

Public Meeting on Plan Progress

March 15, 2023

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Meeting Agenda

- **Discuss Purpose of Plan Update**
- **Review the Work Completed to Date**
- **Seek Information**
  - Problem Areas Related to Hazards
  - Potential Mitigation Measures and Projects
- **Answer Questions and Take Comments**

What is Mitigation?

- "Mitigation is **Any Sustained Action Taken to Eliminate or Reduce the Long-term Risk** to Human Life and Property from Natural and Technological Hazards" – *FEMA*

- Actions To **Reduce** The Damages That Result When Disasters Occur

- Mitigation is **NOT** emergency response, crisis management, disaster preparation and recovery

Why Do We Mitigate?

Nationwide Trends:

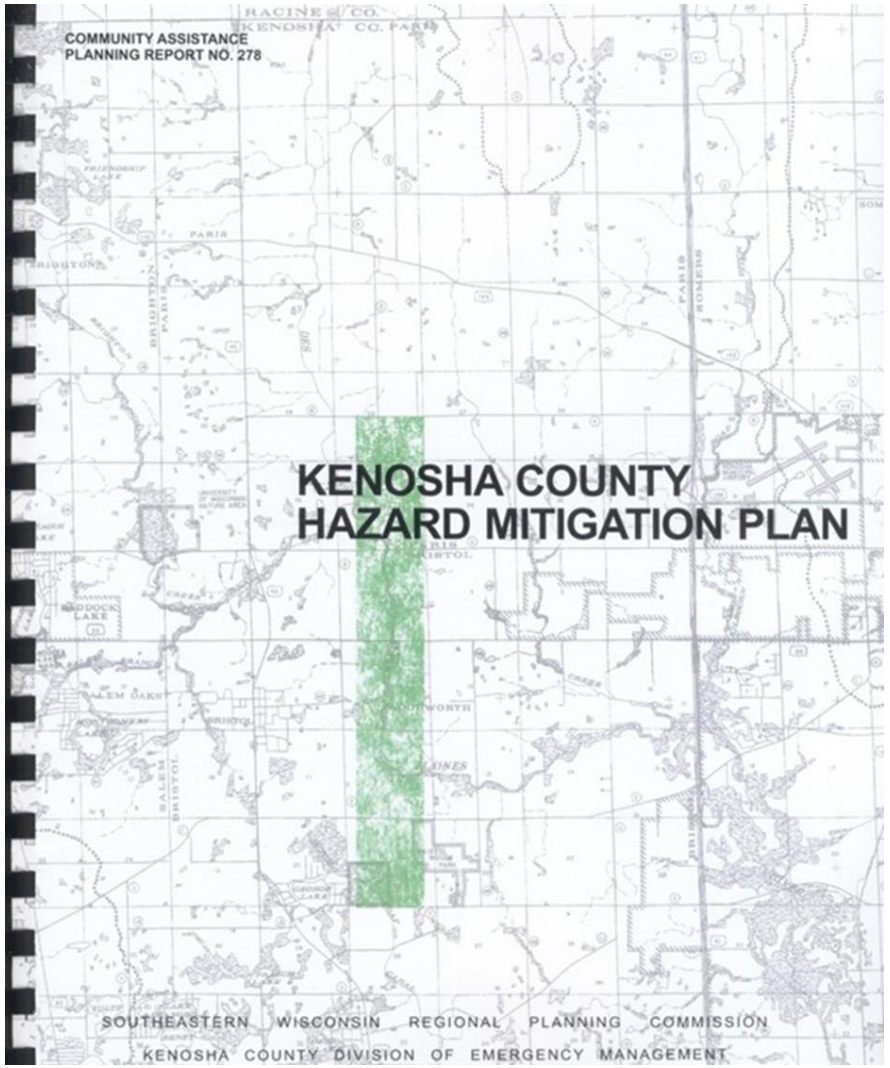
- $450 Billion Since 2005 (GAO) Responding to Disasters
- Costs Continue to Rise
- Extreme Weather More Frequent and Intense
- People Continue to Build and Live in High-Risk Areas

Why Do We Mitigate?

- Disasters Cost Society too Much
- State and Federal Aid Insufficient
- Help Prevent Future Damage
- Promote More Disaster-Resilient and Sustainable Communities
- Reduce Response and Recovery Resource Requirements
- Fosters Partnerships Among All Levels of Government
- Develop and Strengthen Non-Governmental and Private Partnerships

Hazard Mitigation Planning

- FEMA Requires State, Tribal, and Local Governments Develop and Adopt a HMP to Receive Non-Emergency Disaster Assistance
  - HMGP, FMA, and BRIC Programs
- Plans Must be Updated and Revised Every **Five** Years



Kenosha County Hazard Mitigation Plan

- **2005-** 1st Edition Hazard Mitigation Plan
- **2010-** 2nd Edition Hazard Mitigation Plan
- **2017-** 3rd Edition Hazard Mitigation Plan
- **2024** - (Current Plan)- 4th Edition Hazard Mitigation Plan
  - Includes All of the Municipalities in the County
  - Provides Strategies and Recommendations for Mitigating the Impacts of Natural Weather Hazards
  - Plan Development and Updating Overseen by a Local Planning Team (LPT) and Staff from County EM and SEWRPC

Plan Components to Review and Revise

- Implementation and Outreach Activities (Ch. 1)
- County Natural and Built Features (Ch. 2)
- Reevaluate Identification of Hazards (Ch.3)
- Update and Reevaluate Risk Analysis (Ch.3)
- Revise Mitigation Goals (Ch.4)
- Mitigation Strategies (Ch.5)
- Update Plan Adoption, Implementation, and Maintenance Strategies (Ch.6)

Update Inventory Data (Chapter 2)

Demographic Characteristics

- Population, Household, and Employment Trends

Existing and Planned Land Use

- 2020 and 2050 Urban and Nonurban Land Uses

Natural Features

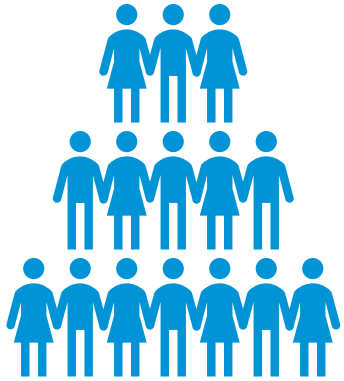
- Environmental Corridors, Wetlands, Watersheds, Major Lakes and Streams, and Floodplains

Critical Community Facilities

Climate Change Trends and Projections

County Trends and Projections

- **Population**
  - 2020: 169,151
  - 2050: 251,100
  - **48%**
- **Households**
  - 2020: 66,842
  - 2050: 100,900
  - **51%**
- **Employment**
  - 2020: 84,636
  - 2050: 102,700
  - **21%**
- **Land Use/Development (Acres)**
  - 2020: 45,070 (Urban) 133,135 (Non-urban)
  - 2050: 54,336 (Urban) 123,869 (Non-urban)



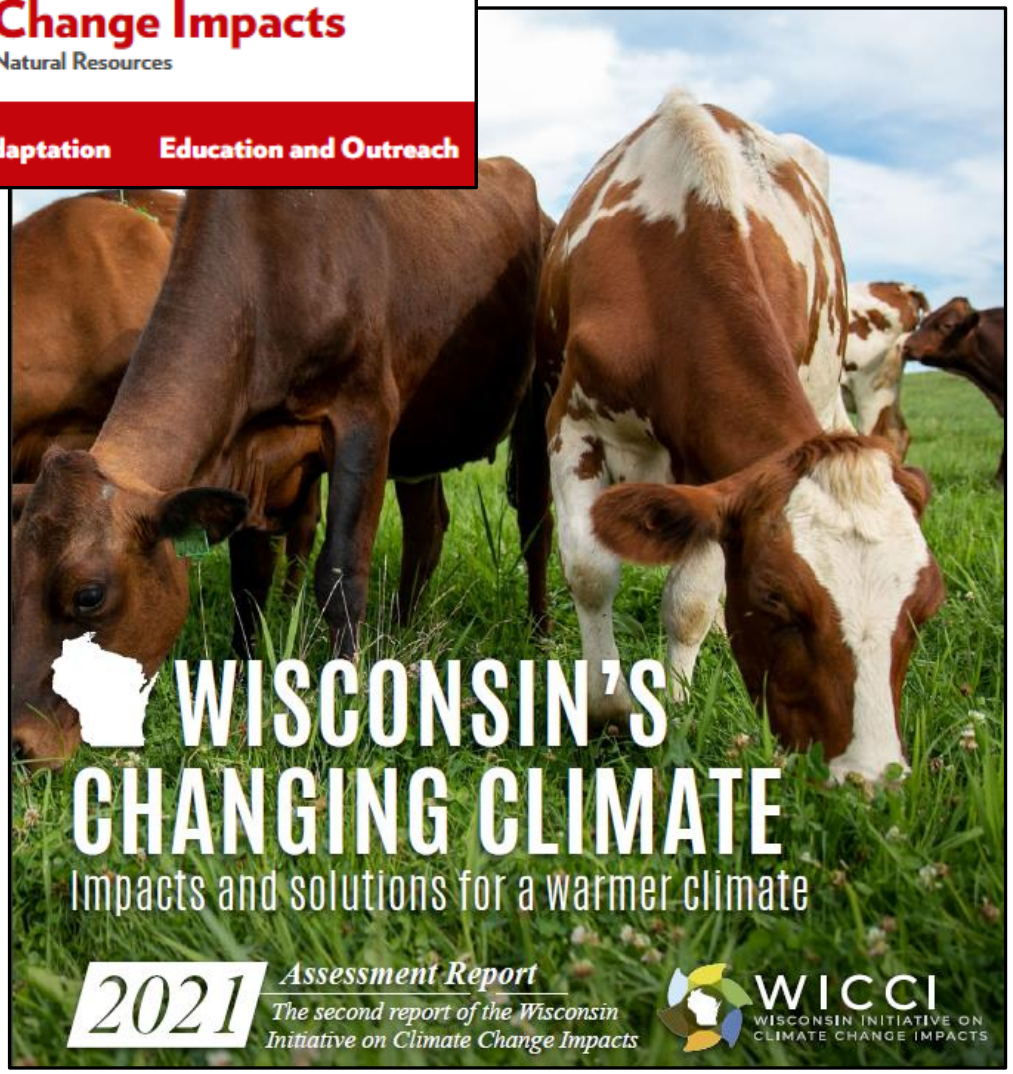
County Trends and Projections (Cont.)

Climate Change

- **WICCI Data**
- **Trends and Projections**
  - 1950-2018: Trends
  - 2041-2060: Projections
  - Figures 2.1-2.4

Impacts to Each Hazard

- Flooding and Extreme Temps



Hazard Identification (Chapter 3)

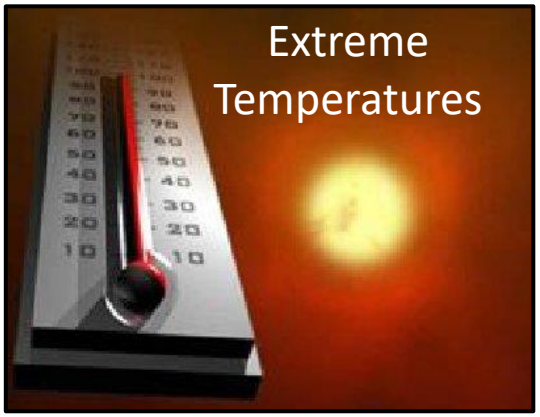
Local Planning Team Input

- Hazard and Vulnerability Assessment Tool

Past Hazard Experiences

- Frequency of Occurrence
- Property and Crop Damages
- Fatalities and Injuries

Natural Hazards Profiled in the Plan



Risk Analysis—Hazard Profiles

Most Profiles Follow A Similar Format:

- Definition and Description of the Hazard
- Description of Notable Events that Affected the County
- Assessment of Vulnerabilities to the Hazard and Community Impacts from the Hazard
  - **Vulnerability**- the likelihood/probability that a hazard event will occur
  - **Impact**- The consequences that the hazard would have
- Description of Potential Future Changes in Hazard Impacts
  - Potential Impacts related to **Climate Change**
- Discussion of Any Differences of Potential Risks to Hazards for Communities
  - **Risk-** Potential for Loss (property or life), due to a hard event

Flooding

Types of Flooding Concerns

- Riverine
- Stormwater Drainage
- Dam Failure
  - DNR Dam Inventory (Map 3.3, Table 3.9)
    - 21 dams in County
    - 2 with "High" hazard potential, 3 with "Significant" hazard potential
- Agricultural
  - 4,516 acres of ag land in 1-percent floodplain
  - $38.4 million in damages (2021 dollars) from 1950 - 2021

Recent Events (Table 3.10)

- 23 flood events 2011 – 2021
- Over $5 million in damages (2021 dollars)
- 2017 – Significant flooding on Fox River in Town of Wheatland and Village of Salem Lakes

2. Flooding (cont.)

Vulnerability and Community Impact Assessment

- Parcel-Based Loss Analysis (Table 3.11)
  - 286 structures in 1-percent floodplain
  - $5.7 million – estimated damages for a 1-percent probability flood
  - No emergency service structures or critical community facilities located in 1-percent floodplain

- Communities with Special Flood Considerations (Table 3.12)
  - Structures in 1-percent floodplain
  - Repetitive loss properties
  - Substantial agricultural flood damages
  - Localized stormwater drainage problems

Severe Weather (Thunderstorm-Related)

- **Thunderstorm-Related Problems**
  - Thunderstorm Winds
  - Non-Thunderstorm High Winds
  - Hail
  - Lightning

- **Recent Events** (2011-2021)
  - Table 3.13
  - 94 severe weather events
  - Over $860,000 in damages (2021)
  - 2 deaths, 2 injuries

- **Vulnerability and Community Impact Assessment**
  - Uniform risk

Lake Michigan Coastal Hazards

Types of Lake Michigan Coastal Hazards

- Erosion of coastal bluffs, beaches, and near shore lake beds
- Coastal flooding
- Damage and failure of shoreline protection structures

Lake Level Fluctuations

- Hazard problems most evident during high water periods
  - 2019 levels approached record high (1986)
  - Lake still about 13 inches above long-term average in November 2021

Vulnerability and Community Impact Assessment

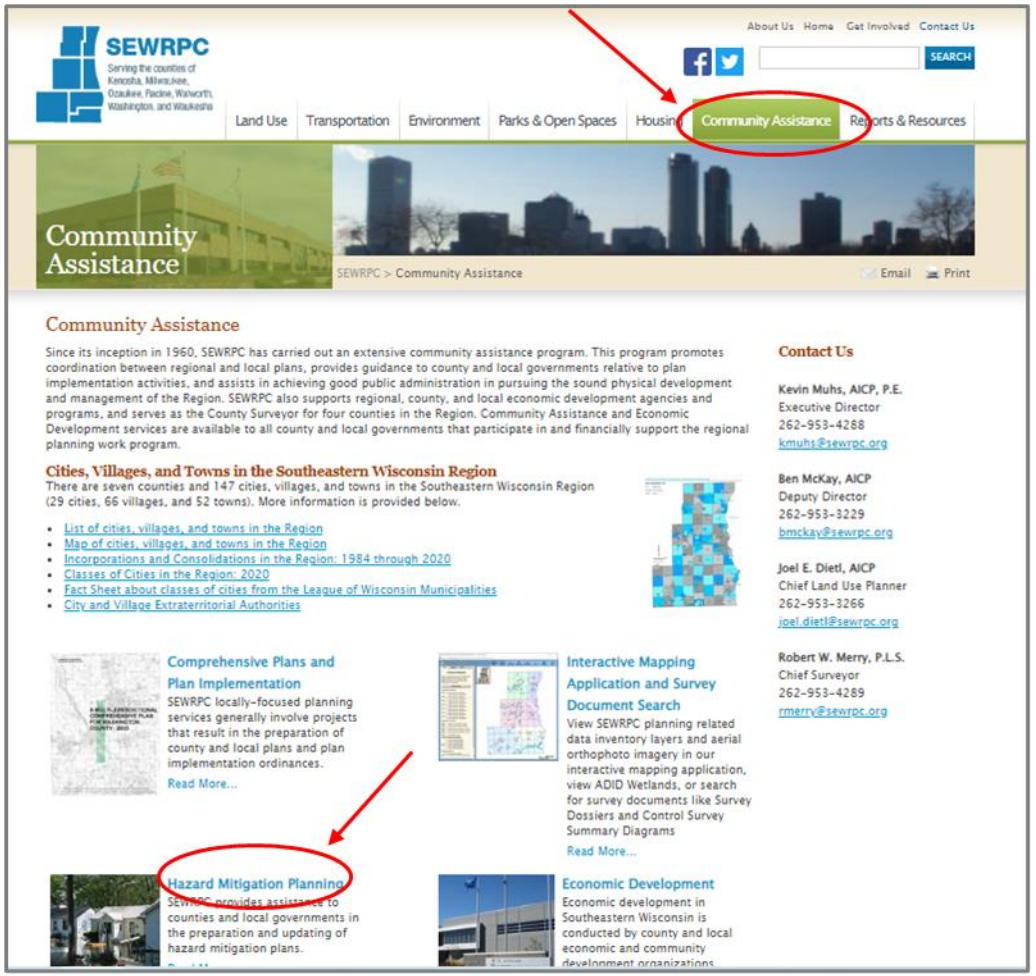
- Maps 3.9 – 3.15, Tables 3.19 – 3.21
- Village of Somers – unstable or failing bluffs
- City of Kenosha – shoreline recession
- Village of Pleasant Prairie – shoreline recession and coastal flooding

Remaining Work to Review and Update:

- Hazard Mitigation **Goals and Objectives** (Ch.4)
- Recommended **Hazard Mitigation Strategies** (Ch.5)
- **Plan Adoption**, Implementation, and Maintenance Measures (Ch.6)

Project Website

- **www.sewrpc.org/HMP**
  - Agendas and other Meeting Materials
  - Summary Notes from Meetings
  - Presentations
  - Draft Chapters as they are Completed
  - Comment Screen
    - Or email **cparisey@sewrpc.org**



Thank You

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