WICCI
WISCONSIN INITIATIVE ON CLIMATE CHANGE IMPACTS

Climate Change Adaptation & Mitigation in Civil Engineering Infrastructure

Maria Viteri Hart, Rick Eilertson, Ezra Meyer

April 4, 2024

2024 Stormwater Workshop
Waukesha County Land Resources & WI Land+Water

OBJECTIVES

Learn about WICCI's Mission and Impact

IWG Resources for Stormwater Practitioners

DNR Climate Activities and State Resources

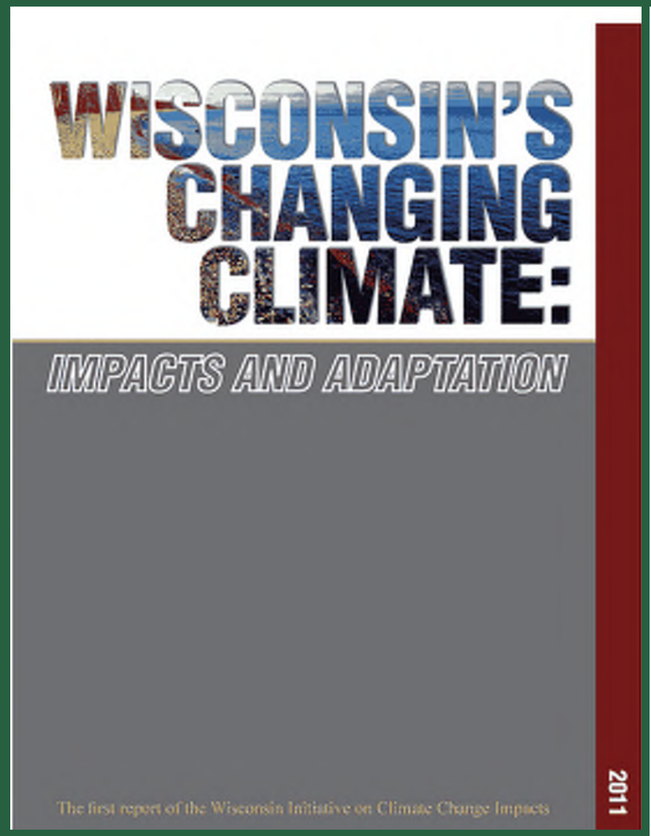
Hear your feedback on Next Steps for IWG

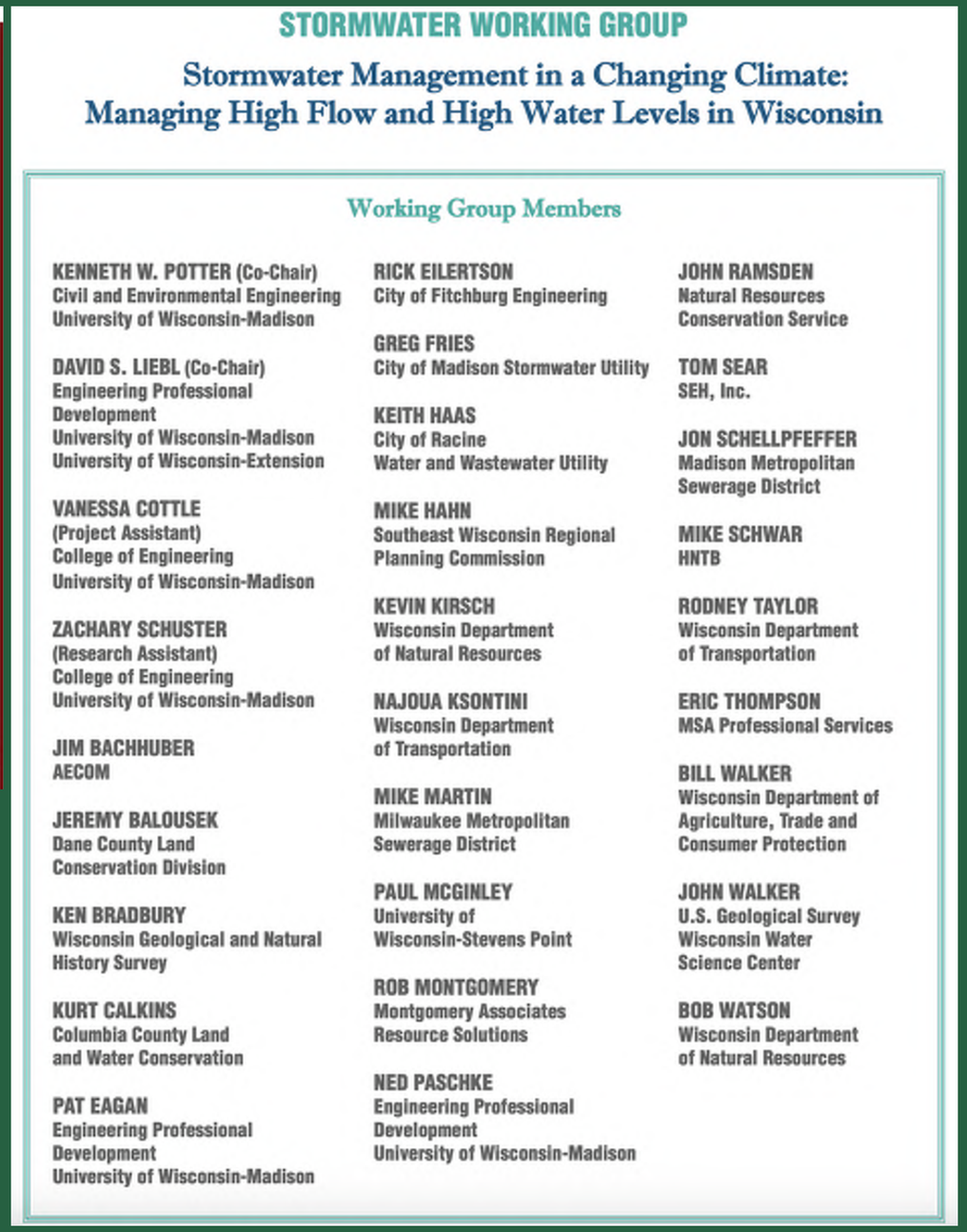
WICCI Overview

- Statewide collaboration of scientists and stakeholders.
- Formed in 2007 as a partnership between UW-Madison's Nelson Institute for Environmental Studies and the Wisconsin Department of Natural Resources.
- Heavily focused on **Climate Change Adaptation**, now includes mitigation.

2011 Assessment

Wisconsin's Changing Climate: Impacts and Adaption is a resource for business executives, government, natural resources, public health officials, and other decision-makers as they take strategic steps to preserve jobs, invest resources wisely, build resiliency, and protect our built and natural environment in the face of a changing climate.





STORMWATER WORKING GROUP

Stormwater Management in a Changing Climate:
Managing High Flow and High Water Levels in Wisconsin

Working Group Members

KENNETH W. POTTER (Co-Chair)
Civil and Environmental Engineering
University of Wisconsin-Madison

DAVID S. LIEBL (Co-Chair)
Engineering Professional Development
University of Wisconsin-Madison
University of Wisconsin-Extension

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Wisconsin Geological and Natural History Survey

KURT CALKINS
Columbia County Land and Water Conservation

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City of Fitchburg Engineering

GREG FRIES
City of Madison Stormwater Utility

KEITH HAAS
City of Racine
Water and Wastewater Utility

MIKE HAHN
Southeast Wisconsin Regional Planning Commission

KEVIN KIRSCH
Wisconsin Department of Natural Resources

NAJOUA KSONTINI
Wisconsin Department of Transportation

MIKE MARTIN
Milwaukee Metropolitan Sewerage District

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University of Wisconsin-Stevens Point

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Montgomery Associates Resource Solutions

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MSA Professional Services

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Wisconsin Department of Agriculture, Trade and Consumer Protection

JOHN WALKER
U.S. Geological Survey
Wisconsin Water Science Center

BOB WATSON
Wisconsin Department of Natural Resources

https://wicci.wisc.edu/wp-content/uploads/2019/12/2011-wicci-report.pdf

2011 - 2018

- Low-profile - CDC grant on Health Impacts

2019

- National Adaptation Forum held in Madison, WICCI 2.0 (April)
- Form the Infrastructure Working Group (September)
- Governor Evers - EXECUTIVE ORDER - Task Force on Climate Change directed WICCI to collect and update scientific data on the rate of climate change in Wisconsin and its impact on the natural environment (October).

2020

- Inaugural meeting of Infrastructure Group (January)

2021

- Release of 2nd WICCI Assessment (February)

MISSION: Generate and share information that can foster solutions to climate change in Wisconsin.

WICCI Structure

Coordination Team

Co-Directors

Steve Vavrus
State Climatologist
Dir. Climatic Research UW

Ann Kipper
External Services Division
Administrator, DNR

Science Advisory Board

Outcomes Advisory Board

Working Groups Council (14)

- Climate
- Geospatial
- Fisheries
- Great Lakes
- Water Resources
- Coastal Resilience
- Agriculture
- Forestry
- Plant and Natural Communities
- Wildlife
- Community Sustainability
- Human Health
- Tourism
- Infrastructure

We are a group of infrastructure practitioners focused on updating civil engineering standards to adapt & mitigate climate change in Wisconsin.

WICCI Infrastructure Working Group




Rob Montgomery, Water Resources Engineer, Professor in Practice
Dan Wright, Hydrologist, Water Resources Engineer
Maria Hart, Climate Adaptation/Transportation Planner/Workforce Development
Bu Wang, Carbon Capture, Next Gen Construction Materials

iwg@WICCI

Department of Civil and Environmental Engineering
UNIVERSITY OF WISCONSIN–MADISON

Join our mailing list

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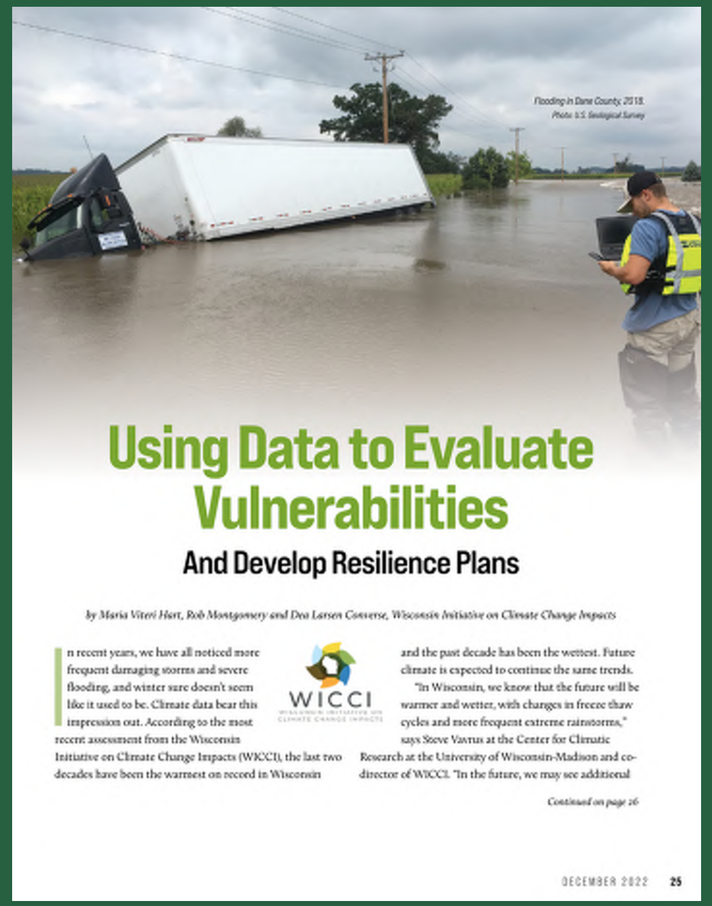
WICCI IWG
Products & Initiatives



Flooding in Dane County, 2018.
Photo: U.S. Geological Survey

Using Data to Evaluate Vulnerabilities

And Develop Resilience Plans

by Maria Vitori Hart, Rob Montgomery and Dea Larsen Converse, Wisconsin Initiative on Climate Change Impacts

In recent years, we have all noticed more frequent damaging storms and severe flooding, and winter sure doesn't seem like it used to be. Climate data bear this impression out. According to the most recent assessment from the Wisconsin Initiative on Climate Change Impacts (WICCI), the last two decades have been the warmest on record in Wisconsin and the past decade has been the wettest. Future climate is expected to continue the same trends.

"In Wisconsin, we know that the future will be warmer and wetter, with changes in freeze thaw cycles and more frequent extreme rainstorms," says Steve Vavrus at the Center for Climatic Research at the University of Wisconsin-Madison and co-director of WICCI. "In the future, we may see additional

Continued on page 26

Wisconsin Counties Association 12-22

Feature

Infrastructure Considerations in a Changing Climate

Maria Hart, Climate Change Adaptation Planning Consultant, Founder of Embed Climate and Rob Montgomery, P.E., Chair, Wisconsin Initiative on Climate Change Impacts Infrastructure Working Group

The Connection Between Infrastructure and Climate

What do storm sewers, water and wastewater treatment plants, bridges, roads, culverts, and dams have in common? They are high-cost infrastructure investments that are typically expected to last from 30 to 100 years. But climate change is forcing infrastructure to perform under conditions that are dramatically different than they were designed for.

"In Wisconsin, we know that the future will be warmer and wetter, with changes in freeze thaw cycles and more frequent extreme rainstorms," said Steve Vavrus, Center for Climatic Research at the UW-Madison and co-director of the Wisconsin Initiative on Climate Change Impacts (WICCI).

Understanding the implications of climate trends can help us **adapt** our infrastructure design and management to reduce risk. Past methodologies that are based on historic patterns won't give us the information we need. As an example, rainfall statistics that describe future conditions are needed to make better decisions on the size and cost of drainage systems.

In addition, our infrastructure itself has a substantial **carbon footprint**[1] that is produced by the fuel used in producing and installing materials like concrete, steel, and asphalt. Transitioning to materials and construction techniques that have a smaller carbon footprint will help communities reduce (**mitigate**) their impact on climate change.

These adaptation and mitigation concerns prompted Rob Montgomery to organize practitioners in 2020 and launch the Infrastructure Working Group (IWG) as part of the Wisconsin Initiative on Climate Change Impacts (WICCI). The IWG co-chairs include the UW-Madison civil engineering faculty, Daniel Wright and Bu Wang, and Maria Hart, an emerita transportation researcher.

Adaptation versus Mitigation

Climate Change Adaptation is the process of adjusting to new (climate) conditions in order to reduce risks to valued assets. Adaptation can be physical, as in raising a road or behavioral, as in using less water in times of drought.

Climate Change Mitigation are actions that can reduce the amount and speed of future climate change by reducing emissions of heat-trapping gases or removing them from the atmosphere. Examples of activities range from clean energy projects to carbon capture technologies.

U.S. Climate Resilience Toolkit
https://toolkit.climate.gov/content/glossary

Survey of the State of Practice

As one of its first activities, the IWG conducted a survey of public infrastructure managers, planners, consultants, and elected officials. The goal was to hear from practitioners on the priorities the IWG should focus on as well as to determine the state of practice of resilience planning. "We made a big push to reach a broad group of practitioners early so that we could get input in the development of products from the get-go," Montgomery said. "We spoke to public works directors, consultants, researchers, city engineers, public water utilities, and city administrators. They all came together. Our goal is to provide information that will be valuable to the design engineer, the infrastructure manager, and the construction industry."

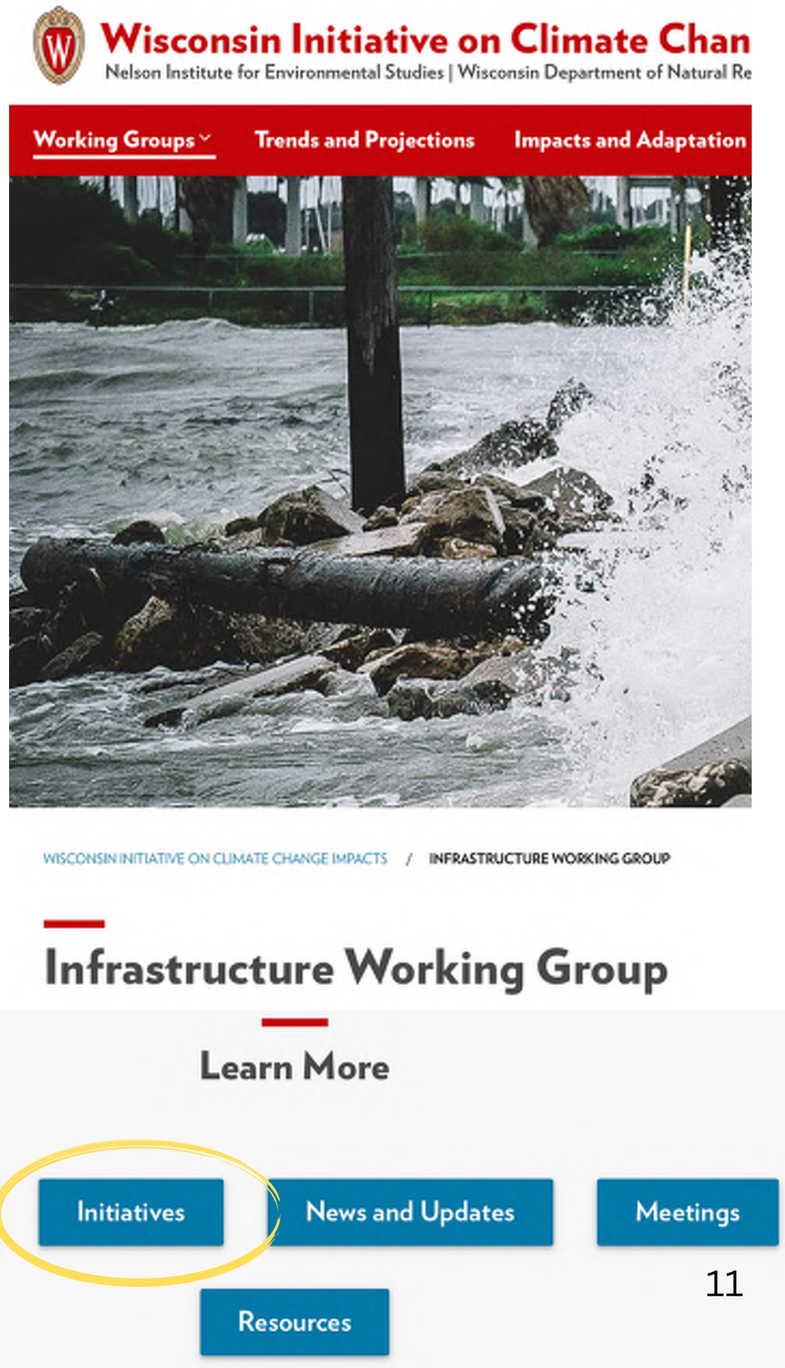
"We now have a baseline and understand where issues are ranked. For example, we know that the top two concerns are aging infrastructure and pavement deterioration," said Maria Hart, the IWG co-chair who led the survey.

▸ p.9

1. The carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by a person, organization, event or product. Carbon Footprint Fact Sheet https://css.umich.edu/factsheets/carbon-footprint-factsheet

League of Wisconsin Municipalities 9-21

Where can you find our Products?



WICCI IWG Products

Planning

[Wisconsin Infrastructure & Climate Change Survey 2020]

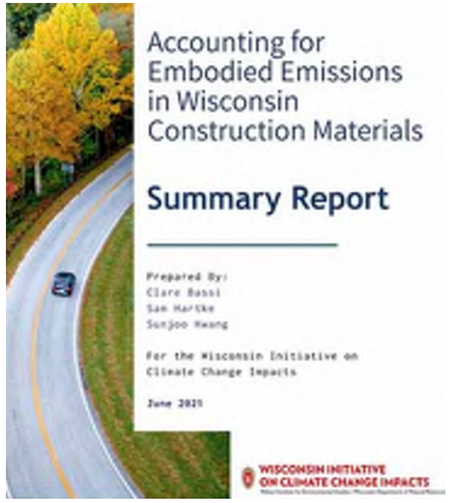
Adaptation

[The Wisconsin Rainfall Project]

This map showing updated current 100-year 24-hour rain depths indicates higher totals in western Wisconsin.

Mitigation

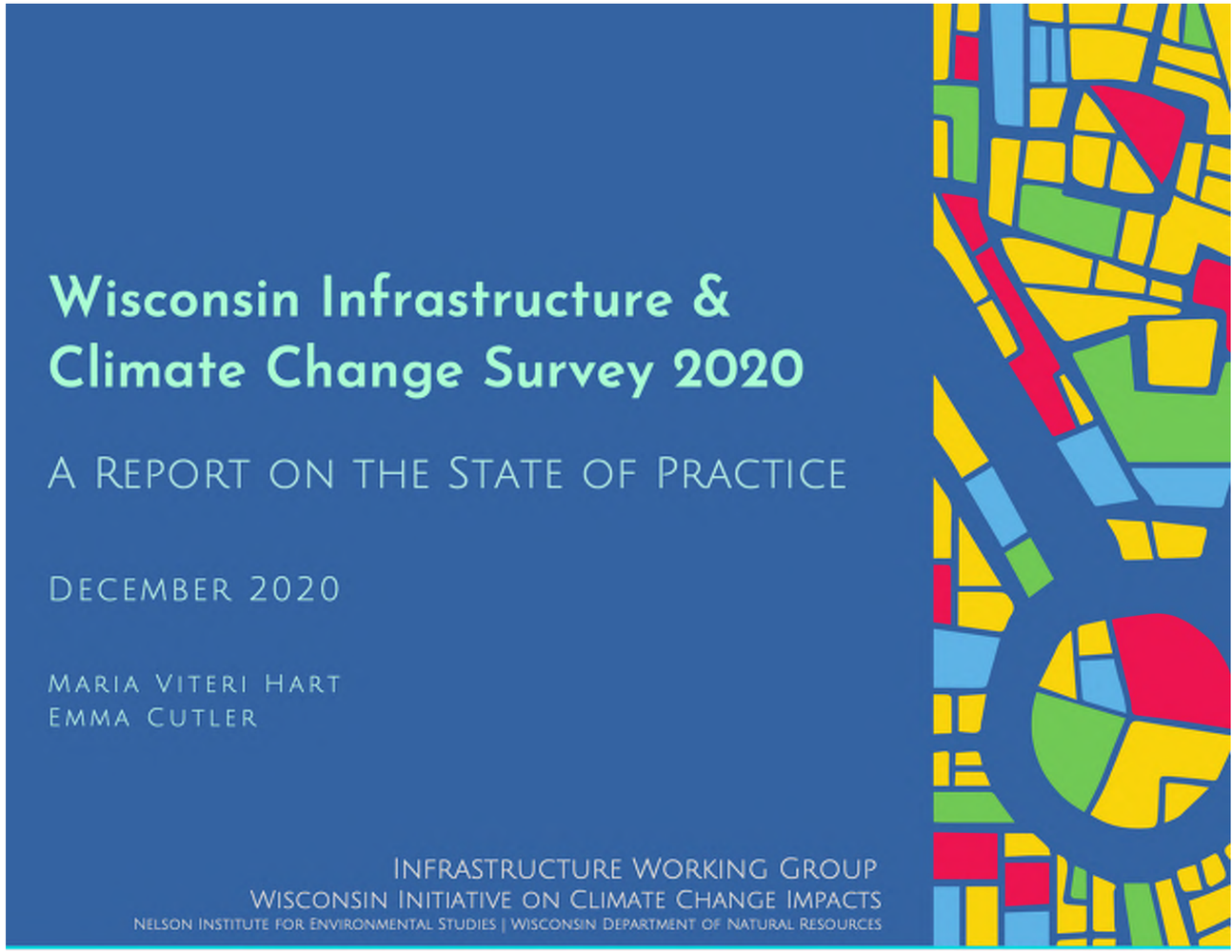
[Embodied Carbon Emissions of Construction Materials]



Survey Goals

Primary goals

1. To confirm IWG's research priorities - rainfall data, design standards
2. To understand the state of practice; establish a baseline, understand concerns, barriers.
3. Provide documentation to support planning and funding.



Secondary goals

- Introduce WICCI’s products and the Infrastructure Working Group.
- Engage the public infrastructure community.

What factors allowed work on climate change to take off in your organization or municipality?

Survey Comments

Rich on State of Practice and Ideas

Responses

- Taking climate change actions that complement other projects
- Reframing conversations in terms of energy and the environment
- Firsthand experience with emergencies and impacts
- Buy-in from council members
- Good working relationship between staff and council
- Dedicating personnel
- Client needs
- Low emission fuels and vehicles
- Sense of urgency among elected officials and a high priority assigned to these initiatives
- Incorporating climate change considerations into planning efforts, especially watershed and hazard mitigation planning

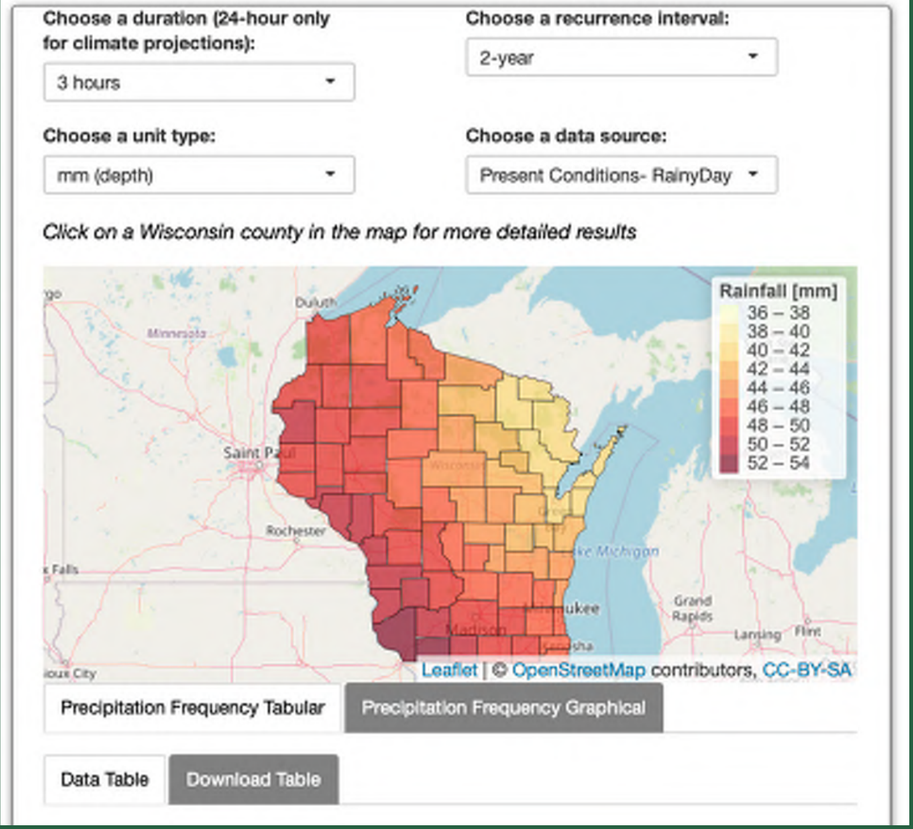
The Wisconsin Rainfall Project

> Design standards for roads, storm-water systems, dams, and construction regulations — even whether a home is in a flood plain and requires flood insurance — are based on **precipitation estimates**. In many states, those standards no longer accurately portray the risk to infrastructure intended to last decades.

Washington Post, 4-9-2021

Data Portal

The Wisconsin Rainfall Project was created by the Hydroclimate Extremes Research Group at the University of Wisconsin-Madison (UW) and the Wisconsin Initiative on Climate Change Impacts (WICCI). There are two main components: 1.) present day extreme rainfall statistics from NOAA Atlas 14 and from UW's RainyDay software; 2.) projection of future extreme rainfall statistics using the UW Probabilistic Downscaling method.



Documentation

- **Leader:** Daniel Wright, Infrastructure Working Group Co-Chair
- **Product:** Rainfall Data Portal
- **Supporting documents:**
  - Fact Sheet — Creating Updated Extreme Rainfall Information using RainyDay (pdf)
  - Fact Sheet — Past and Future Extreme Rainfall Information using Downscaling (pdf)
  - Final Project Report—The Wisconsin Rainfall Project: Current and Future Rainfall Data for Infrastructure and Planning (pdf)
- **Presentations:** Climate Change and Rainfall IDF Statistics, Environmental and Water Resources Institute (ASCE), Oct 29, 2021: video and PowerPoint slides
- **Additional Resources:**
  - A Comparative Analysis of the Historical Accuracy of the Point Precipitation Frequency Estimates of Four Data Sets and Their Projections for the Northeastern United States (pdf)
  - A Remote Sensing-Based Tool for Assessing Rainfall-Driven Hazards (pdf)

Questions

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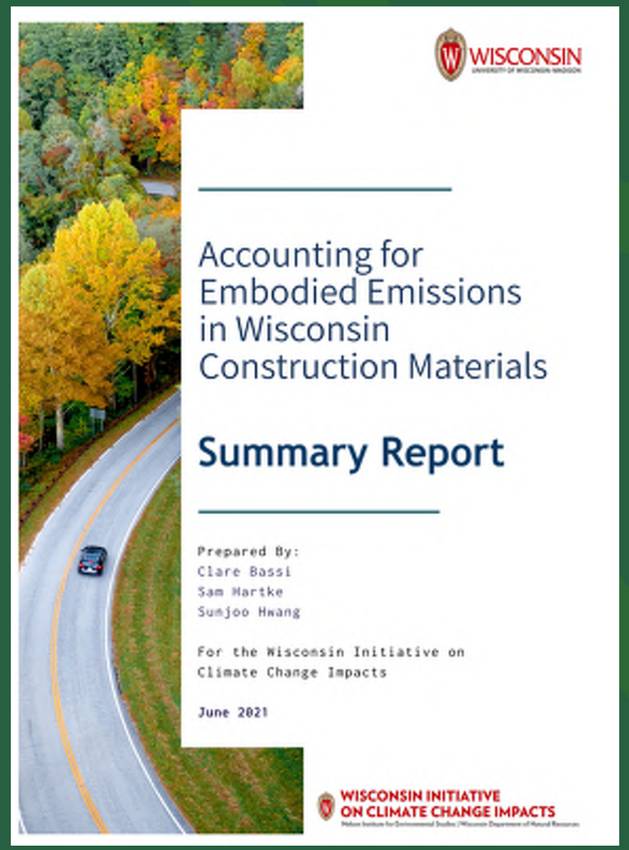
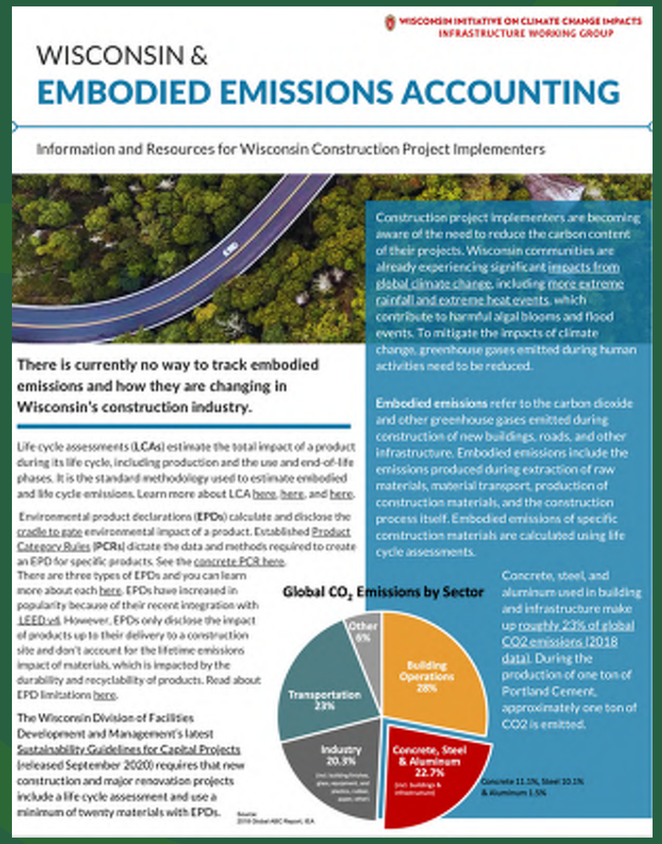
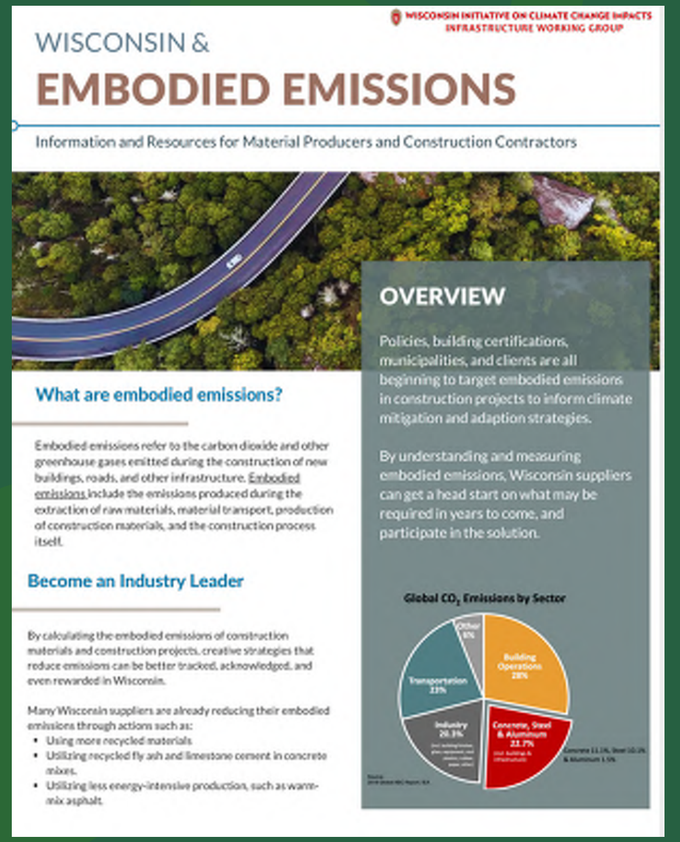
Infrastructure's Carbon Footprint

Questions

Bu Wang
bu.wang@wisc.edu







Flood Resilient Road Stream Crossings

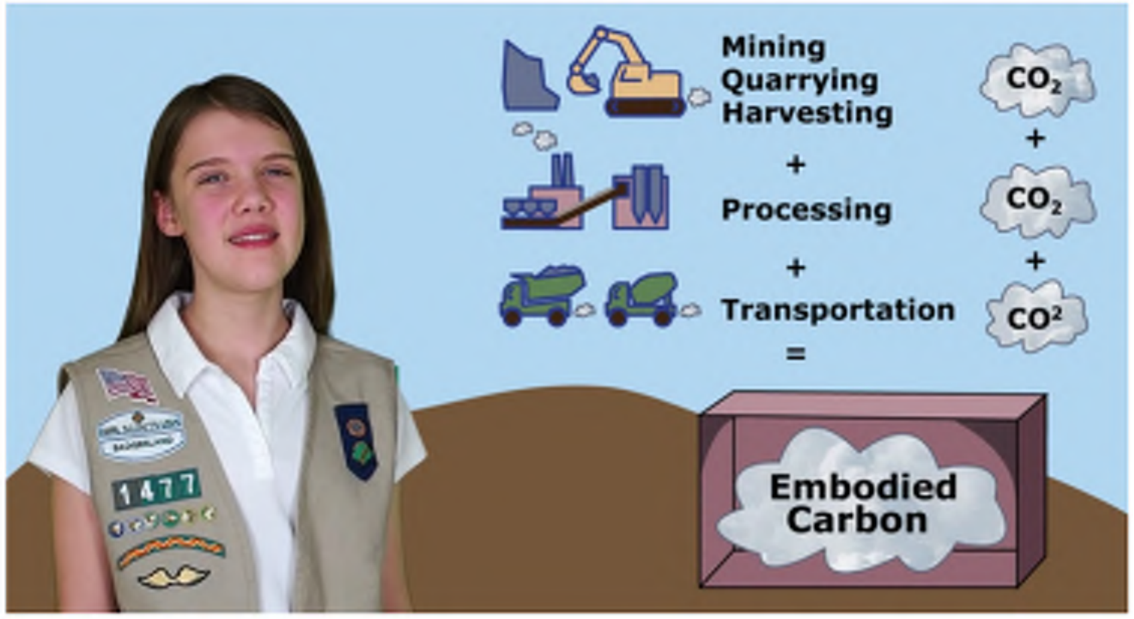
Provide resources to road management agencies and stakeholders including tools to prioritize crossing replacement projects and technical and financial assistance to upgrade vulnerable road stream crossings with flood resilient structures

Questions

Christopher Ester
christopher.ester@usda.gov

February 8, 2022 IWG Meeting Highlight

Wisconsin Girl Scout Troops 1477 and 1952 Educate an Industry



Climate Change Stories

Built Environment

Back-to-back flooding events in the City of Brookfield

Carbon content in construction materials

Climate impacts in northern Wisconsin

Bluff erosion in Ozaukee County

Investing in built infrastructure

Understanding the limits of our infrastructure and planning for the future

Village of Fox Point Beach Drive protection

Record-high Lake Superior water levels causing erosion on Wisconsin Point in Superior

WDNR, Climate Resilience, & WICCI

April 4, 2024, Waukesha County Stormwater Workshop

Ezra Meyer, Wisconsin DNR Climate Resilience Outreach Specialist

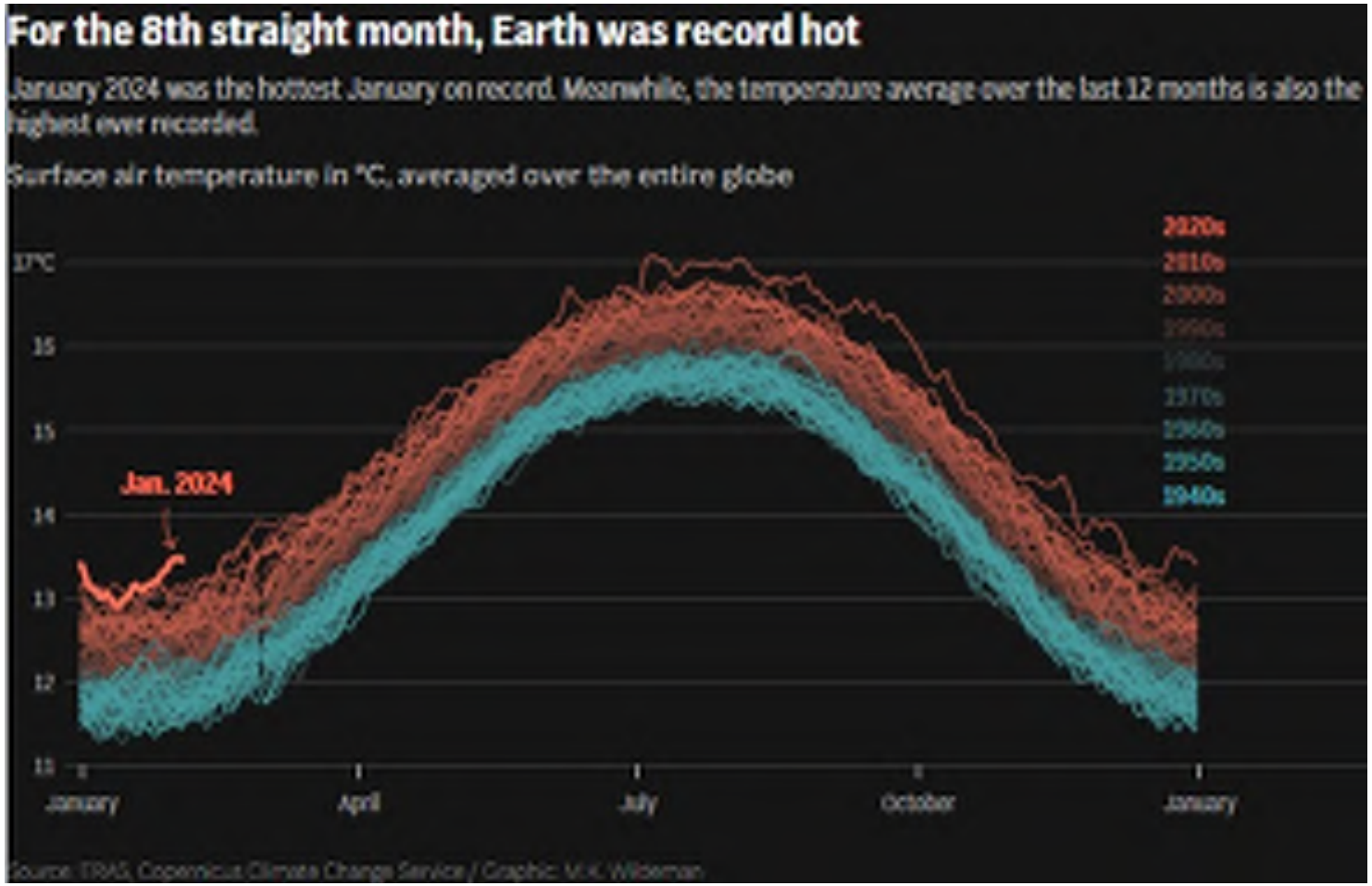
Special thanks for his contributions to this presentation to:

Sean Kennedy, WDNR Climate and Resilience Policy Advisor

Presentation Outline

1. Why the Focus on Climate Change?
2. What Do We Mean by Climate Resilience?
3. State and DNR Action on Climate Resilience
4. Brief State Revolving Fund/Bipartisan Infrastructure Law Update
5. How Storm Water Projects Fit in to the Clean Water Fund

1.) Why the focus on climate change?


For the 8th straight month, Earth was record hot
January 2024 was the hottest January on record. Meanwhile, the temperature average over the last 12 months is also the highest ever recorded.
Surface air temperature in °C, averaged over the entire globe
2020s
2010s
1970s
1960s
1950s
1940s
Jan. 2024
16
15
14
13
12
11
January
April
July
October
January
Source: ERA5, Copernicus Climate Change Service / Graphic: M.K. Wilbeman

Wisconsin's Changing Climate

IMPACTS AND SOLUTIONS FOR A WARMER CLIMATE

2021 Assessment Report

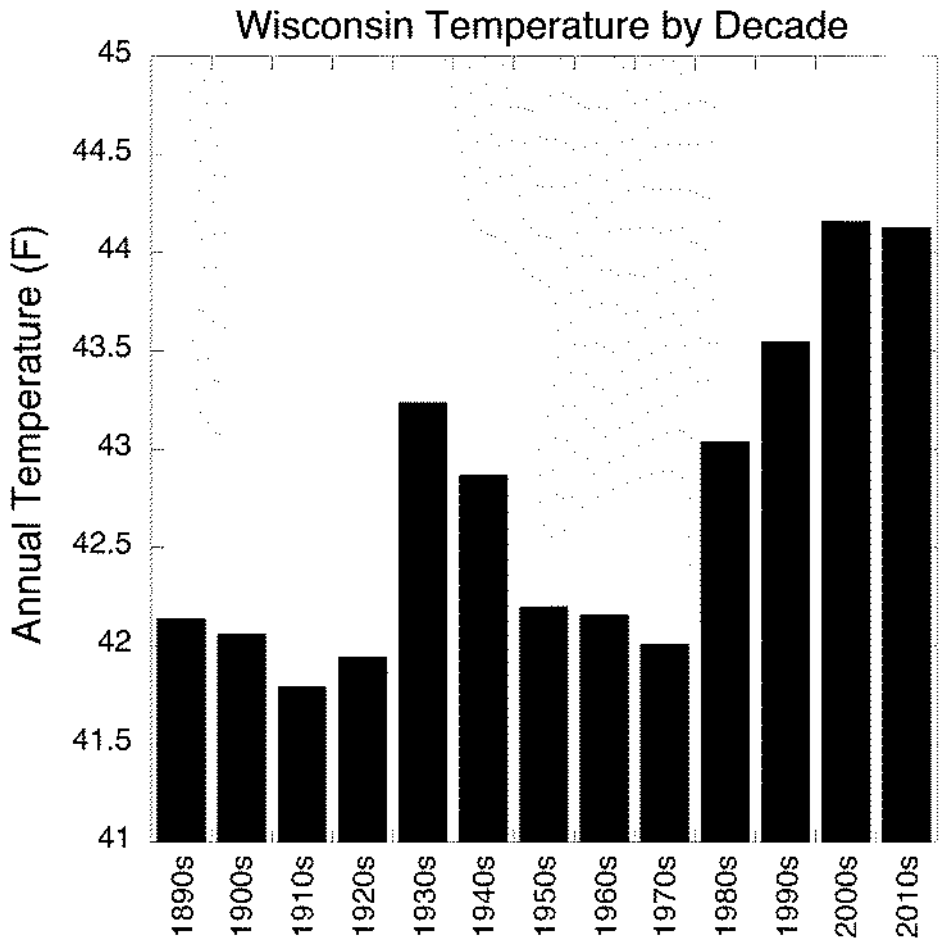
WICCI
WISCONSIN INITIATIVE ON CLIMATE CHANGE IMPACTS

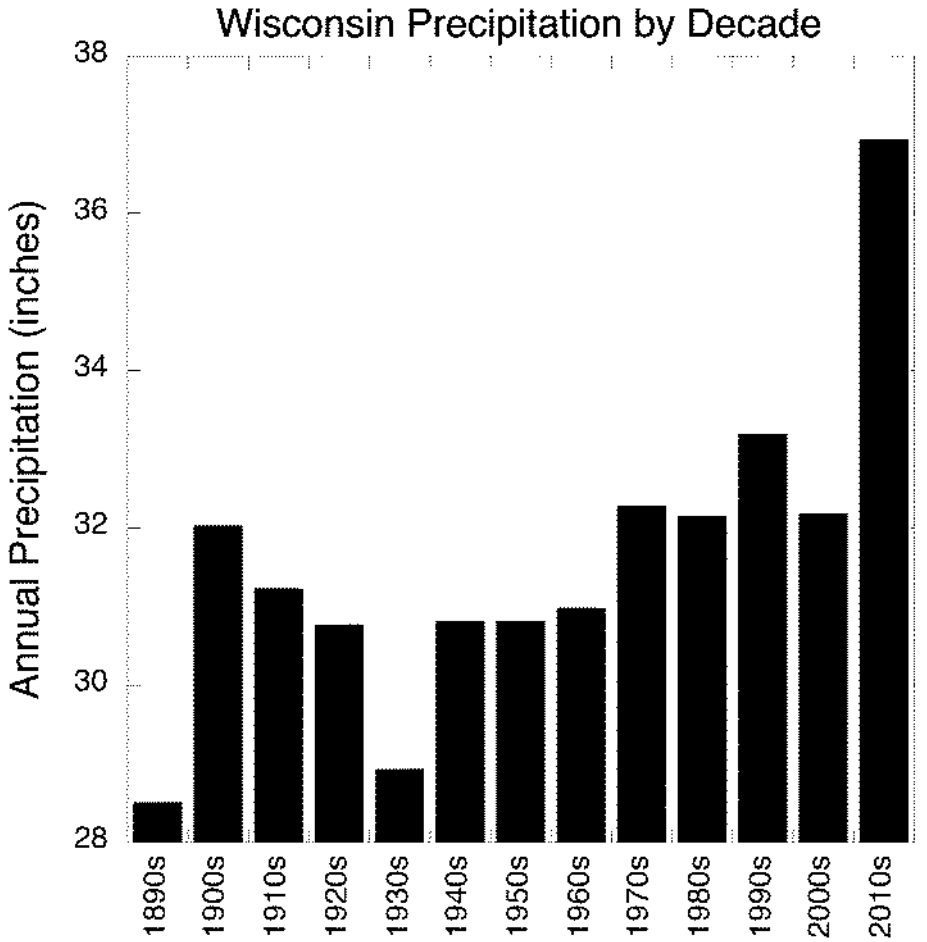
Climate Change Is Here and Now

- The last two decades were the warmest on record in Wisconsin.
- The last decade was the wettest on record in Wisconsin.

Source: 2021 WICCI Assessment Report

Wisconsin is Warmer and Wetter





2000s and 2010s = warmest decades

2010s the wettest decade by far

Slide from Steve Vavrus

Climate Change Is Impacting Us in Wisconsin

- Extreme storm events
- Changing seasons -- warming winters
- Habitat and growing season shifts
- Rapidly fluctuating Great Lakes water levels
- Increasing precipitation causing floods in every region of Wisconsin

→ Across Wisconsin, public health, our economy, agriculture, and our natural resources are feeling the impact

Source: 2021 WICCI Assessment Report

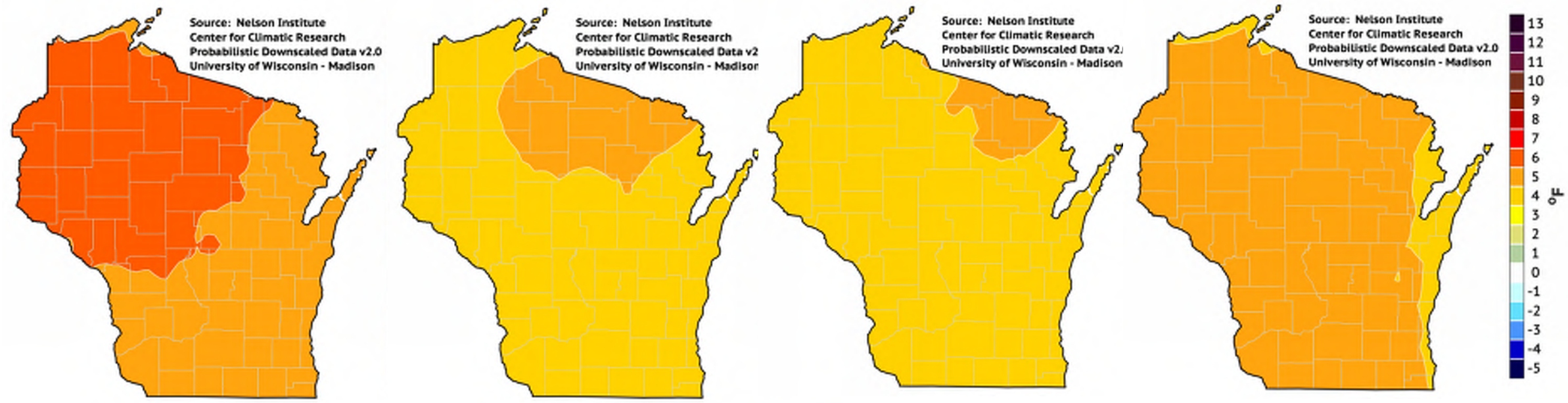
Climate Change Will Continue

- New analyses reaffirm previous projections.
- The warmer and wetter trends will continue into the future.

Source: 2021 WICCI Assessment Report

Projected Temperature Change 2041-60

Winter Spring Summer Fall



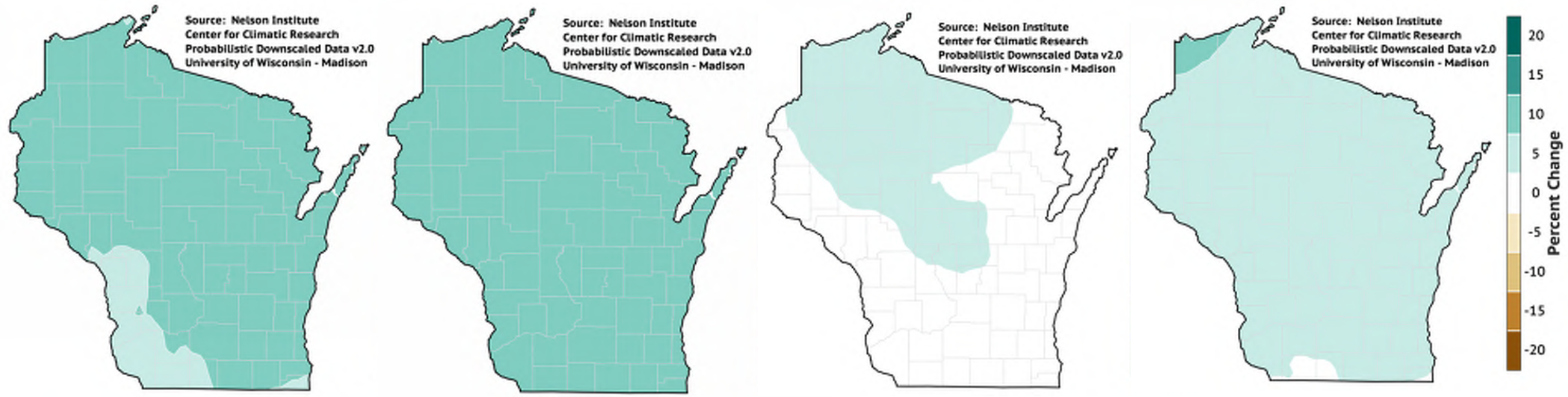
Warming to continue in every season. . .

Slide from Steve Vavrus

Projected Precipitation Change 2041-60

?

Winter Spring Summer Fall



Generally wetter throughout the year. . .

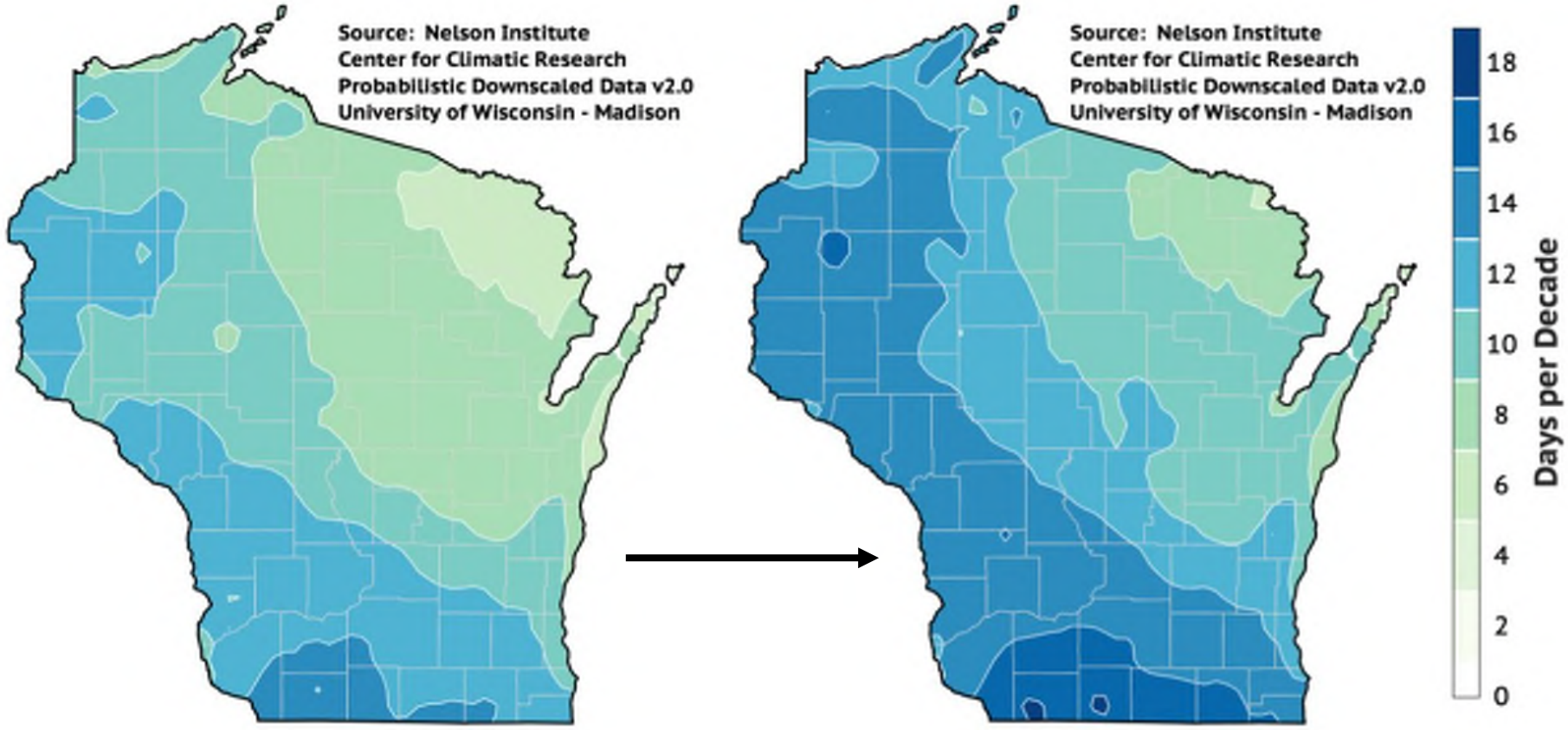
Slide from Steve Vavrus

Wisconsin's Future Climate by Late Century?

Extreme Rain: 2-inch daily rainfalls

PAST: 1981-2010 average

FUTURE: 2040-2060 average



Extreme rainfall to increase in the future throughout Wisconsin

Slide from Steve Vavrus

Climate change will continue to impact Wisconsin in the future

There is hope for the future -- it's up to us!

We have to take action on mitigation and adaptation/resilience, and fast.

What?:

- WICCI stresses the need for *large* and *rapid* reductions in carbon and other greenhouse gas emissions, and other key actions

How?:

- Everyone must be involved in finding sustainable/equitable solutions

Combatting Climate Change in Wisconsin

Specific steps we can take to protect our communities, our natural resources and our economy from the impacts of climate change:

- Protect the most vulnerable in response to extreme weather events and set up timely public communication on climate-health issues.
- Reduce greenhouse gas emissions and create an equitable transition to renewable energy.
- Maintain and expand forest cover and urban tree canopy with the greatest potential to store carbon.

Combatting Climate Change in Wisconsin

Specific steps we can take to protect our communities, our natural resources and our economy from the impacts of climate change:

- Avoid converting natural vegetation to row-crop ag or urban dev't to improve resilience to increasing precipitation and flood events.

- Implement habitat management changes to provide food and cover for wildlife that align with expected future climate conditions.

Combatting Climate Change in Wisconsin

Specific steps we can take to protect our communities, our natural resources and our economy from the impacts of climate change:

- Plan for evolving climate challenges by investing in flood risk reduction practices, pre-disaster mitigation programs, and comprehensive planning to help communities address local flood risks, reduce health risks, and protect our economy.
- Design and build infrastructure that accounts for future conditions.

2.) What Do We Mean by Climate Resilience?

What is climate resilience?

- *American Society of Civil Engineers:*
  - Resilience is the "ability to plan, prepare for, mitigate, and adapt to changing conditions from hazards to enable rapid recovery of physical, social, economic, and ecological infrastructure."
- *Union of Concerned Scientists:*
  - "…successfully coping with and managing the impacts of climate change while preventing those impacts from growing worse"

What is climate resilience?

- *WDNR:*
  - "Community resilience" refers to the ability of tribal nations, counties and municipalities to effectively respond to climate-driven disasters, anticipate climate change impacts, and adjust infrastructure investments and management approaches for future conditions. This includes building and sustaining adequate transportation systems and energy supplies."

Where municipalities/water utilities can (and should!) consider climate resilience:

- Infrastructure planning:
  - Capital improvements plans
  - Facility plans / project plans & specifications
  - Operations plans
- Comprehensive / Development / Land use plans
- Hazard mitigation plans
- Climate action plans
- Transportation plans
- County Land & Water Resource Management Plans, etc.

3.) State and DNR Action on Climate Change

WDNR Climate & Resilience Policy Advisor: Sean Kennedy

- Purpose: Provide strategic leadership to:
  - Guide DNR climate change and resilience policies,
  - Accelerate adoption of climate change mitigation and adaptation strategies, and
  - Enhance the long-term resilience of Wisconsin's natural resources, communities, infrastructure, and economy.
- Roles:
  - Advise DNR leadership on climate and resilience policy topics
  - Lead a DNR Climate Action Team
  - Liaison with other agencies, organizations, and partners
  - Foster regional and national partnerships and collaboration
  - Represent the DNR in climate-related discussions, forums, interviews, and at conferences and events.

WDNR Climate Action Team (CAT)

- Members represent divisions and programs engaged with department climate and resilience work
- Catalyst and clearinghouse for climate action department-wide
- Ensure climate initiatives are aligned, advanced, and prioritized
- Implement the DNR Blueprint on Climate Action
- Annual Climate Accomplishments Report

WDNR Partners Engaged in 2023

- Wisconsin Land & Water
- Wisconsin Local Government Climate Coalition
- River Alliance
- National Indian Carbon Coalition
- Wisconsin's Green Fire
- Urban Ecology Center
- Clean Wisconsin
- The Nature Conservancy
- Northern Institute of Applied Climate Science (NIACS)
- Green Tier Legacy Communities
- Midwest Climate Collaborative
- Daybreak Fund
- Trust for Public Land
- Georgetown Climate Center State Policy Forum
- Great Plains Institute
- State Deployment Initiative
- Atlas Public Policy Climate Program
- Climate Xchange State Policy Network

WDNR 2024 Priority: Leading by Example

- Facilities
- Greening the fleet
- Public natural and working (forest & ag) lands
  - State Park System
  - State Trail Network
  - State Forests
  - State Natural Areas
  - State Wildlife and Fisheries Areas

Climate Change Leadership in Wisconsin: Key Executive Actions (by Gov. Evers)

2019: Wisconsin joins the U.S. Climate Alliance

- Bipartisan climate action coalition of Governors representing 55% of the U.S. population, and 60% of the U.S. Economy
- Pledge of Wisconsin's support for Paris Accord, high-impact state climate action
- Multi-state collaboration and partnerships to scale climate solutions
- Work groups and learning opportunities

UNITED STATES CLIMATE ALLIANCE

2019 Executive Order #38

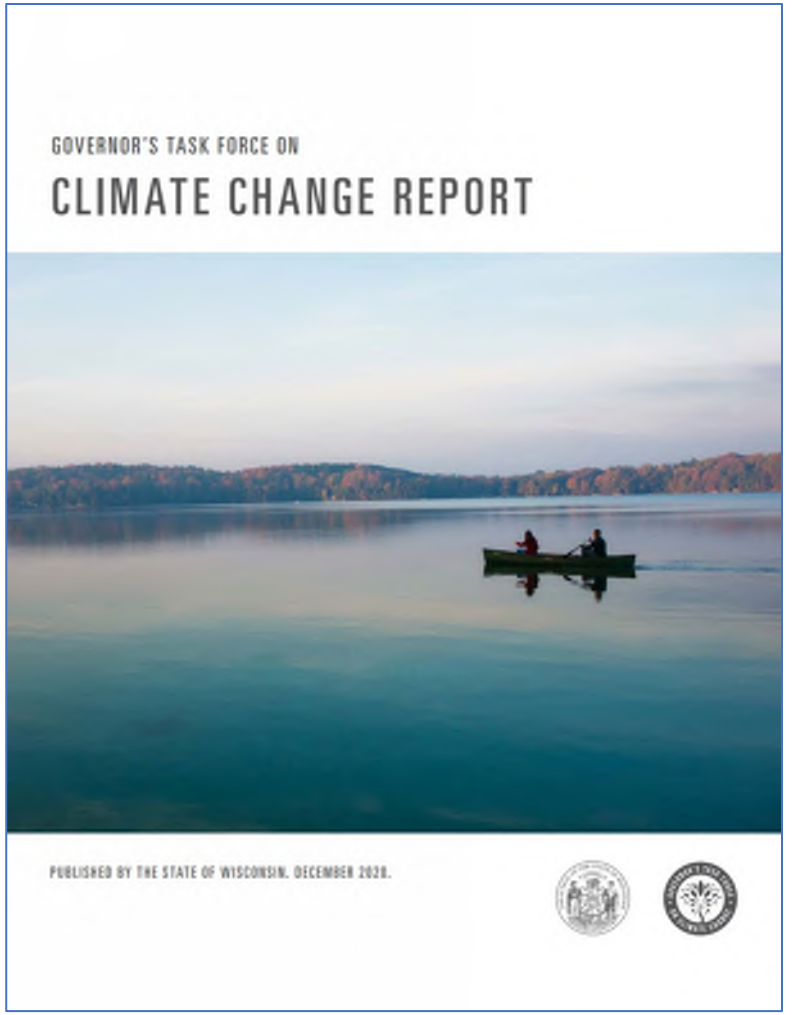
- Established the Office of Sustainability and Clean Energy (OSCE)
- Directed development of a Clean Energy Plan for Wisconsin
- Set goal of 100% carbon-free electricity by 2050 and state to pursue 2015 Paris Climate Accord carbon reduction goals
- Clean energy workforce training

DOA Office of Sustainability & Clean Energy

- Wisconsin Clean Energy Plan (2022)
  - 2023 Progress Report
- State Government Lead-by-Example Program
- WI Electrification Steering Committee
- Interagency Clean Transportation Workgroup
- Climate Pollution Reduction Grant – lead agency
  - Priority Climate Action Plan submitted to EPA in March 2024
  - Implementation grant applications due April 2024
  - Comprehensive Climate Action Plan due early 2025

2019 Executive Order #52

- Created Governor's Task Force on Climate Change
- Directed development of a Task Force on Climate Change Report
- December 2020: Task Force report recommends 55 climate solutions.



2021 Executive Order #112

- Conservation and Restoration of Forestland in Wisconsin
- 125,000 acres of forestland conserved
- 75 million trees planted by 2030

2023 Executive Order #195

- Established the Green Ribbon Commission on Clean Energy and Environmental Innovation
- Guiding the creation of Wisconsin's first green bank, the Green Innovation Fund

2024 Priority: Federal Climate Funding

- Climate Pollution Reduction Grant
  - Priority Climate Action Plan (PCAP)
  - Comprehensive Climate Action Plan (CCAP)
  - Implementation Grant Competition
- NOAA Climate Resilience Regional Challenge
- Building coalitions across state government and across state borders

Wisconsin Initiative on Climate Change Impacts (WICCI)

- Formed in 2007
- Statewide collaboration of scientists and stakeholders led by the DNR and UW-Madison Nelson Institute for Environmental Studies
- Provides science to help understand climate change, assess vulnerabilities, and foster solutions
- Climate adaptation focus
- Science Advisory Board
- Outcomes Advisory Board launched in 2023
- 14 Working Groups

WICCI
WISCONSIN INITIATIVE ON CLIMATE CHANGE IMPACTS

WICCI Working Groups

Working Groups

Experts from a variety of related fields participate in WICCI's 14 working groups. The working groups undertake collaborative efforts to understand climate change impacts and identify potential solutions to support resiliency throughout Wisconsin. The Working Groups Council, comprised of working group leaders, supports networking, monitors and discusses working group progress, and helps develop outreach messages.

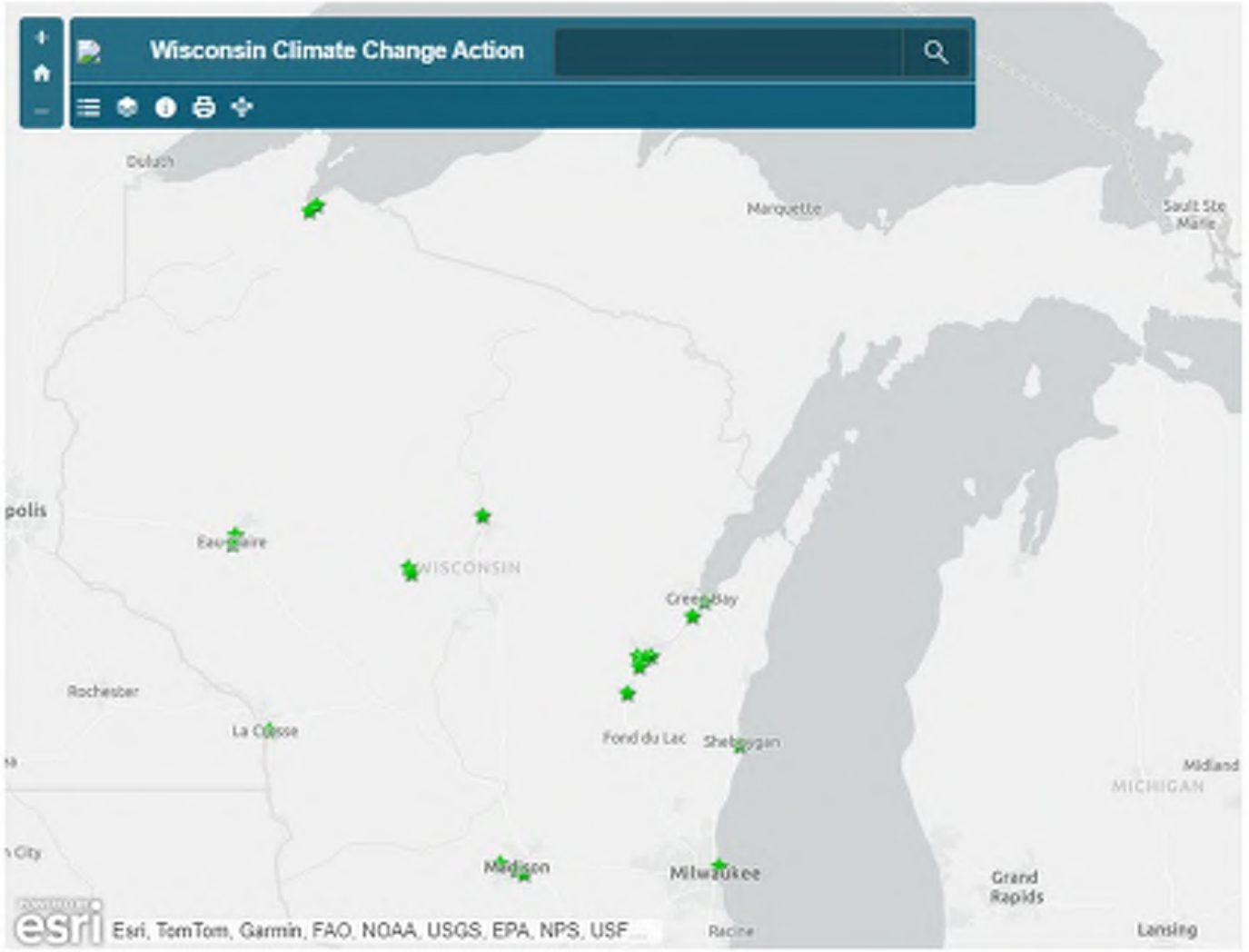
- Agriculture »
- Climate »
- Coastal Resilience »
- Community Sustainability »
- Fisheries »
- Geospatial »
- Forestry »
- Great Lakes »
- Human Health »
- Infrastructure »
- Plants and Natural Communities »
- Tourism and Outdoor Recreation »
- Water Resources »
- Wildlife »

Source: https://wicci.wisc.edu/our-team/

Local Climate Actions in Wisconsin

- Commitments to carbon-free or substantial carbon reduction goals
- Hazard mitigation plans
- RPC climate resilience plans and projects
- Green Tier Legacy Communities
- Municipal sustainability commissions
- Local climate action plans
- Wisconsin Local Government Climate Coalition
- EPA Climate Pollution Reduction Grant implementation grants

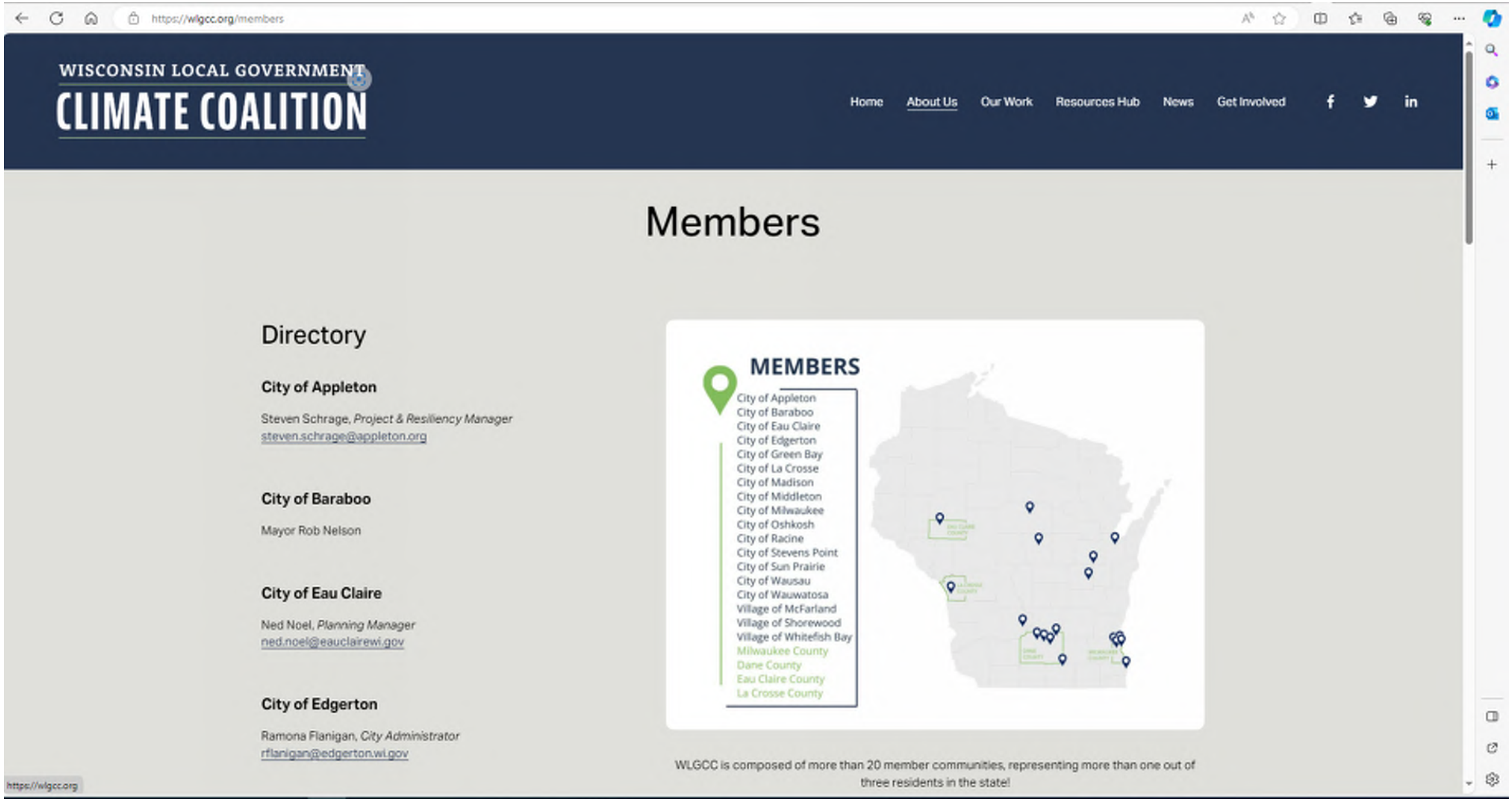
Municipal Sustainability Commissions



Source: https://www.cleanwisconsin.org/climate-action-map-wi/

Green Tier Legacy Communities

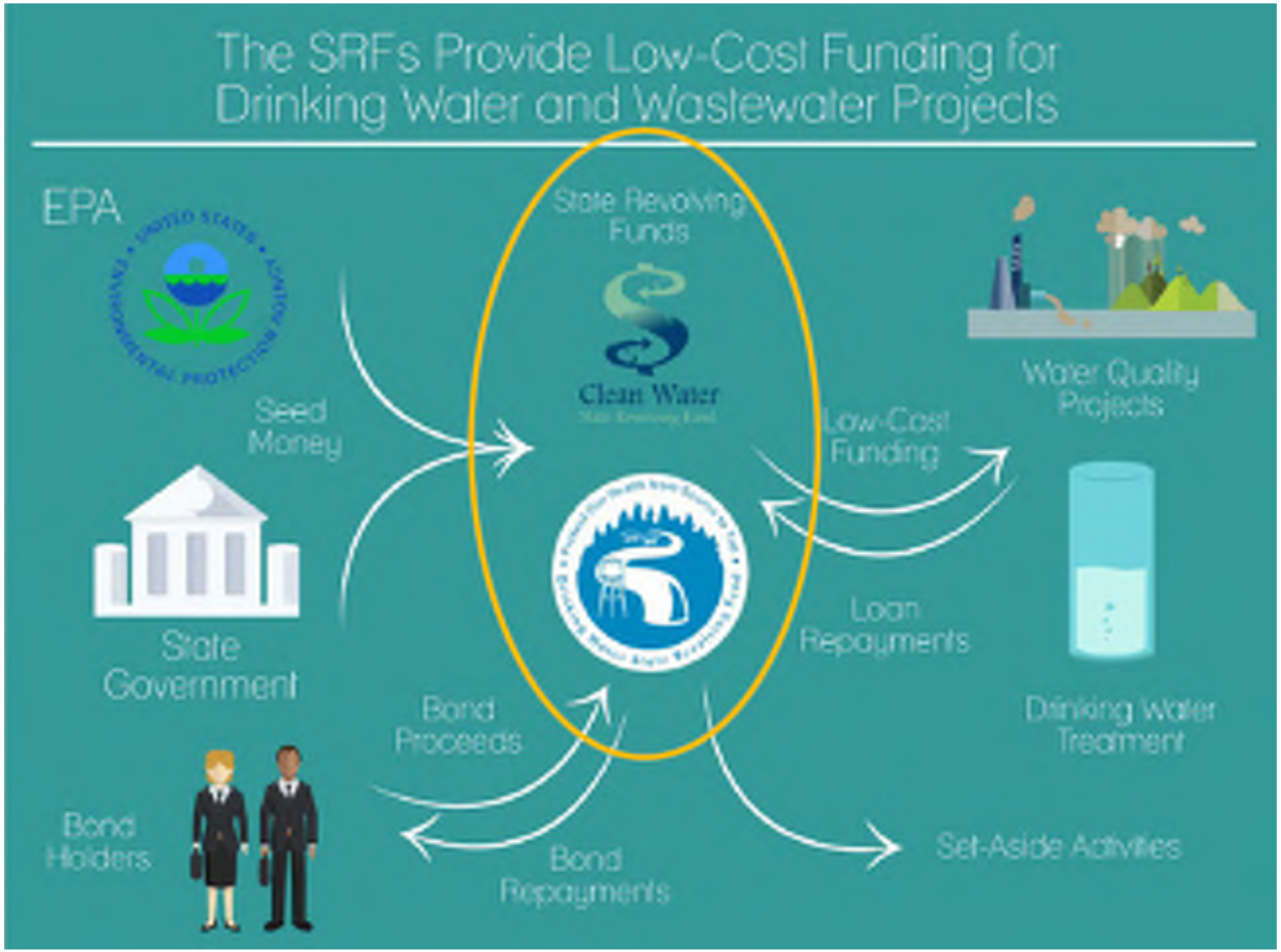
Source: https://dnr.wisconsin.gov/topic/GreenTier/Participants/CharterPages/LegacyCommunities.html



Source: https://wlgcc.org/

4.) Clean Water Fund/Bipartisan Infrastructure Law Update

WI Environmental Improvement Fund



WI DNR's Environmental Loans Program

- Clean Water Fund Program (CWFP), Safe Drinking Water Loan Program (SDWLP)
  - Private LSL Replacement Program & CWFP Pilot Project Program
- Subsidized interest rates – updated quarterly
    - 2.145% for most municipalities
    - 1.287% for disadvantaged municipalities
    - 0% for extremely disadvantaged municipalities (CWFP only)
- 20 – 30 year loan terms (or design life of project)
- Portions of loans ***may*** be awarded as Principal Forgiveness (like grant funding – no repayment)

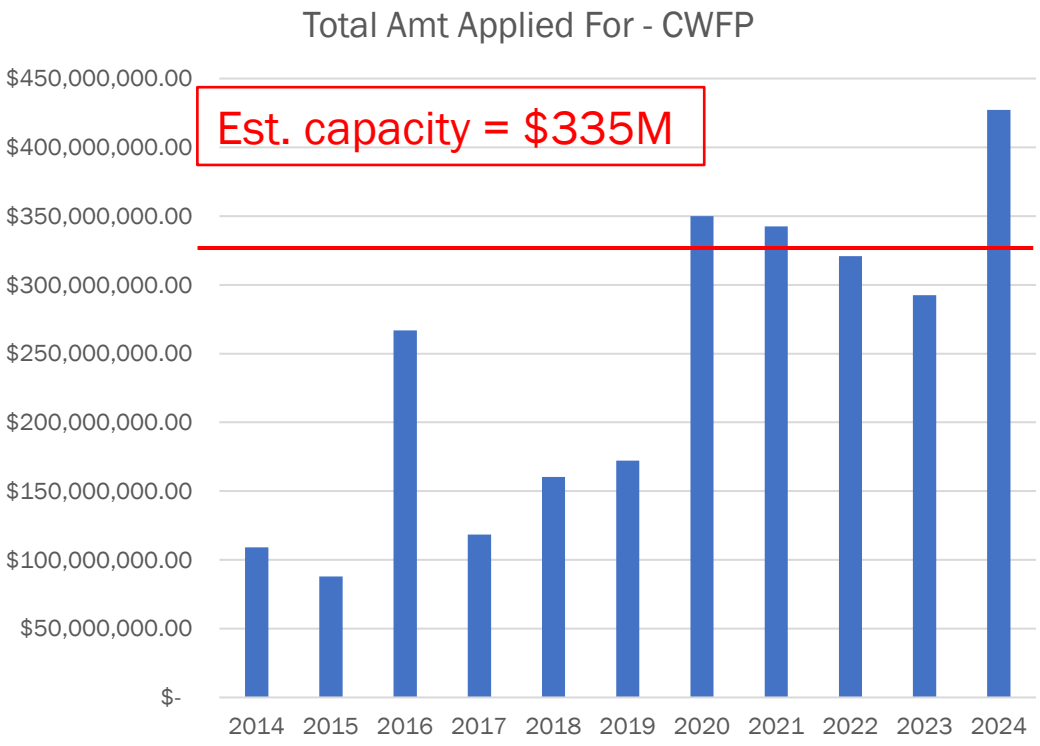
DNR Clean Water Fund
BIL Funding – Where Are We Now?

	Total	Principal Forgiveness	Loan
SFY23 (Year 1)	$48,116,000	$23,576,840	$24,539,160
SFY24 (Year 2)*	$55,705,274	$27,295,584	$28,409,690
SFY25 (Year 3)*	$60,790,088	$29,787,143	$31,002,945
SFY26 (Year 4)*	$65,849,605	$32,266,306	$33,583,298
SFY27 (Year 5)*	$65,849,605	$32,266,306	$33,583,298
* Estimated			

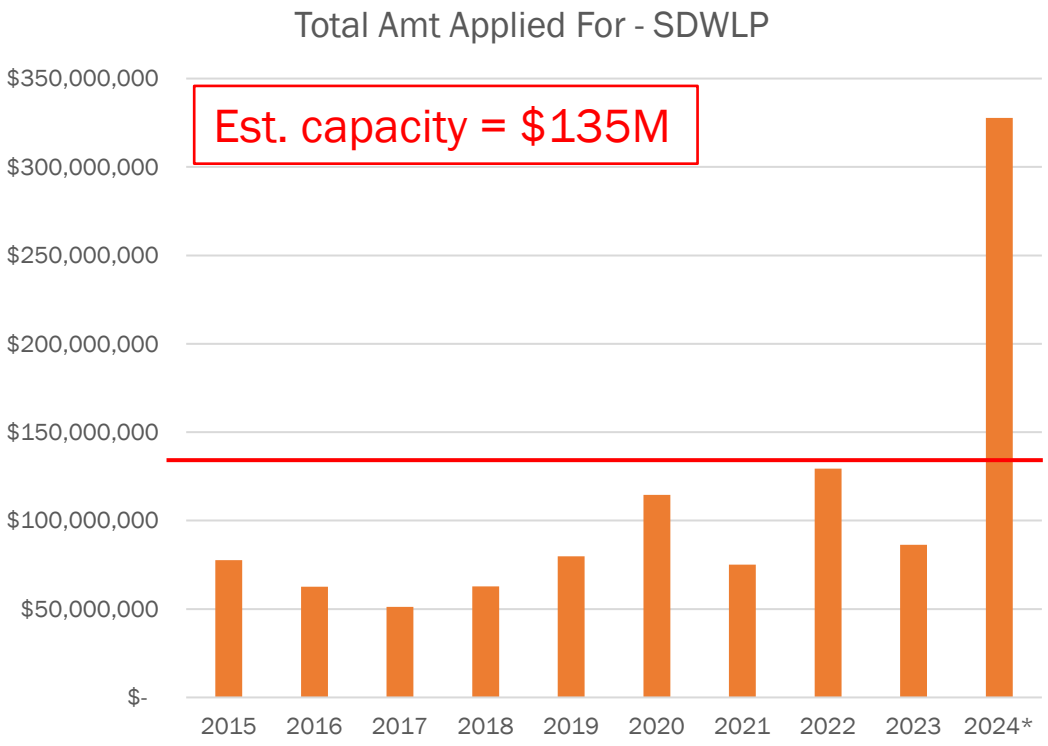
- Principal forgiveness is limited, competitive, and not guaranteed
- In addition to "base" allocation to annual Capitalization Grant
- Notice of Intent to Apply (ITA) deadline for SFY2026 funding is **October 31, 2024**

SFY 2024 Total Loan Demand: *Current*

CWFP



SDWLP



* Includes Base & EC funding requested, but not LSL

SFY 2025 Impacts

- The SFY 2025 application cycle will proceed as normal
- Estimated **loan** capacity for SFY 2025
  - Will be available closer to the start of the fiscal year (July).
  - Anticipated to be sufficient to meet *historical* (pre-2024) loan demand.
- Principal Forgiveness
  - Available amounts expected to be comparable to SFY 2024 (general, EC & LSL).
  - BIL PF amounts are fairly certain, base PF is dependent on the federal budget and earmarks.
- Recommendation
  - Apply ahead of the application deadlines to compete for funding.
  - Understand that funding may be insufficient ***if*** loan demand is high.

Important Deadlines

- June 30, 2024
  - Deadline to submit full applications for SDWLP SFY2025
    - Must have previously submitted an eligible ITA by October 2023
- September 30th, 2024
  - Deadline to submit full applications for CWFP SFY2025
    - Must have previously submitted an eligible ITA by October 2023
- October 31st, 2024
  - Deadline to submit ITA for SFY2026
  - Applications due for SFY2026 on September 30th, 2025.

Technical Assistance – DNR Resources

BIL allows states to use 2% of any CW capitalization grant for technical assistance (TA) to small (<10,000), rural, or tribal governments.

New DNR Staff TA Providers

- Wastewater – Lisa Creegan
- Stormwater – Matt Kaelin
- Nonpoint/Ag – Laura James
- Climate Resilience – Ezra Meyer
- Healthy Watersheds/High Quality Waters – Lauren Haydon
- Engineering Plan Review – Ben Wacker, Sawyer Dobson, Santos Quispe
- Drinking & Groundwater – Elaine Meier, Olivia Fronmueller, Briana Harter, Jeff Flashinski
- Loan Support – Multiple additional loan project managers

Technical Assistance – EPA TA Request

Help for Your Community:

- Cybersecurity
- Climate Resilience
- Training
- Planning
- Decision Making
- Develop Funding Applications
- Address Capacity Needs
- Operator Certification

- Contact WaterTA@epa.gov
- Region 5 - Form

5.) Storm Water Projects & the Clean Water Fund

Climate Resilience and Water Utilities

Designing for climate resilience:

- Can run the gamut:
  - …from simple considerations around increased pipe sizing…
  - … to a full-blown utility resilience plan…

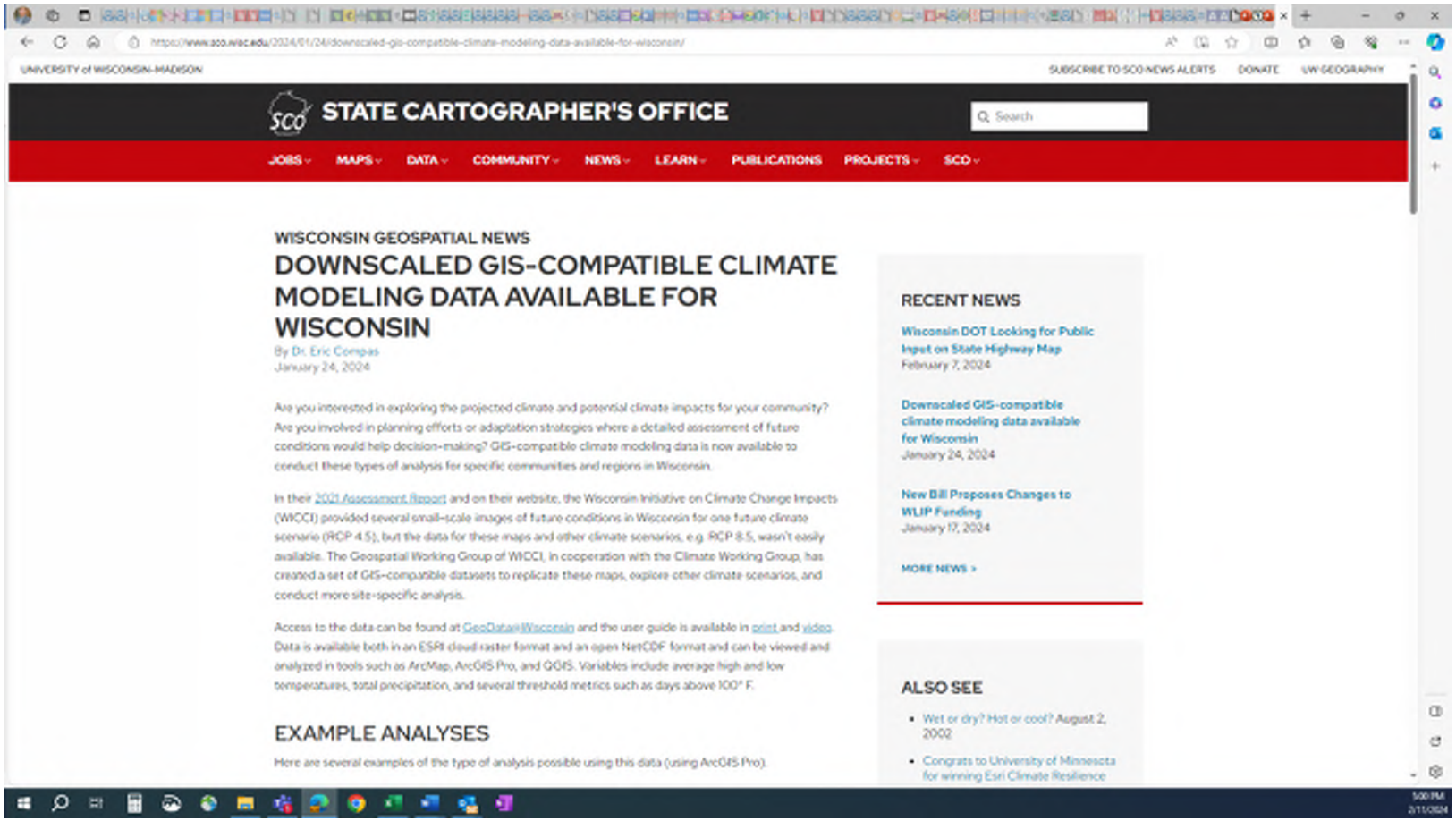
Climate Resilience and Water Utilities

Designing for climate resilience:

- Make sure to think about likely estimated precipitation intensity and regularity throughout the asset's design life
  - Use the latest data / future projections, not old data
    - Wisconsin Initiative on Climate Change Impacts (WICCI): https://wicci.wisc.edu
    - State Climatology Office: https://climatology.nelson.wisc.edu/
    - Fifth National Climate Assessment: https://nca2023.globalchange.gov/
  - Consider the *Federal Flood Risk Management Standard* -- some funding sources require it for wastewater projects
    - https://www.fema.gov/floodplain-management/intergovernmental/federal-flood-risk-management-standard

Climate Resilience and Water Utilities

Data:



https://www.sco.wisc.edu/2024/01/24/downscaled-gis-compatible-climate-modeling-data-available-for-wisconsin/

Climate Resilience and Water Utilities

Resilience *technical assistance* resources:

- EPA's *Creating Resilient Water Utilities* (CRWU) program:
  - https://www.epa.gov/crwu
  - Case studies: https://storymaps.arcgis.com/stories/1b5126bb60bd495a9ff9b05a732b6e5b
- FEMA's *Building Resilient Infrastructure & Communities* (BRIC) program:
  - https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
- EPA's Water Utility Adaptation Strategies for Climate Change:
  - https://www.epa.gov/arc-x/water-utility-adaptation-strategies-climate-change

Climate Resilience and Water Utilities

Resilience *funding* resources:

- WDNR's *Clean Water Fund Program*
  - https://dnr.wisconsin.gov/aid/EIF.html
- FEMA's *Building Resilient Infrastructure & Communities* (BRIC) program:
  - https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
- Funding Opportunities List from the Federal Government's U.S. Climate Resilience Toolkit:
  - https://toolkit.climate.gov/content/funding-opportunities

CWFP Focus: Storm Water Projects

Storm water runoff carries pollutants, such as sediment, nutrients, bacteria, metals, and chemicals, into our waterways. These pollutants degrade water quality, harm aquatic life, and pose risks to human health.

DNR has increased focus on making funding available for storm water projects through the CWFP to help municipalities build storm infrastructure and improve water quality.

Eligible Projects:

- Funds are for reasonable and necessary costs directly related to the **planning, design, and construction** of eligible projects.
- **Must** lead to or provide treatment to control discharged water quality.

CWFP Focus: Storm Water Projects

Eligible projects:

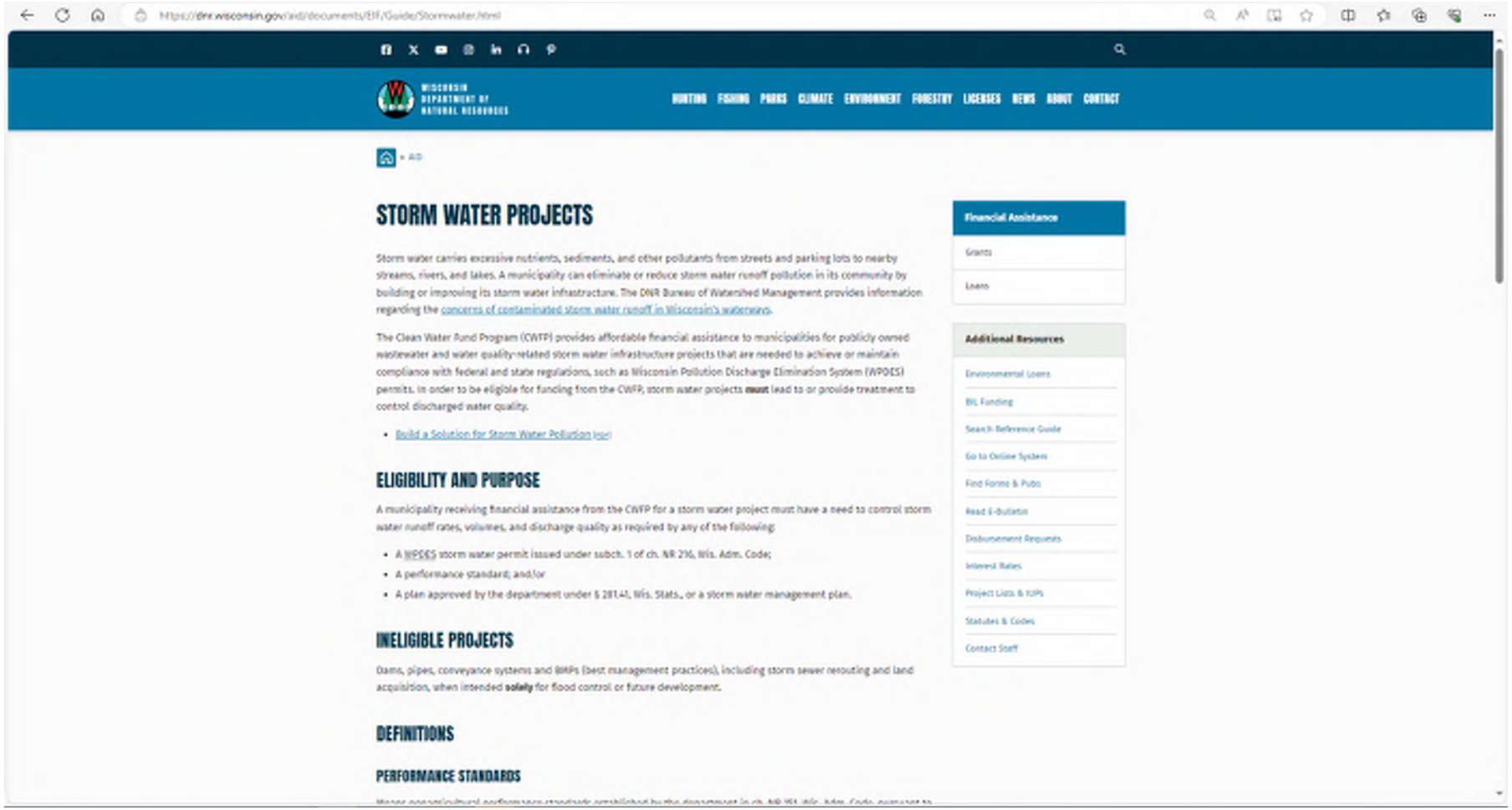
- Construction or improvement of storm water infrastructure and best management practices (BMPs), such as detention or retention ponds, infiltration basins, biofilters, rain gardens, permeable pavement, green roofs, etc.
- Removal or replacement of impervious surfaces with pervious ones
- Land acquisition if an integral part of an eligible project

Ineligible projects:

- Dams, pipes, conveyance systems and BMPs, including storm sewer rerouting and land acquisition, when intended **solely** for flood control or future development.
- Routine maintenance on existing BMPs
- Projects that do not have a direct or indirect impact on water quality

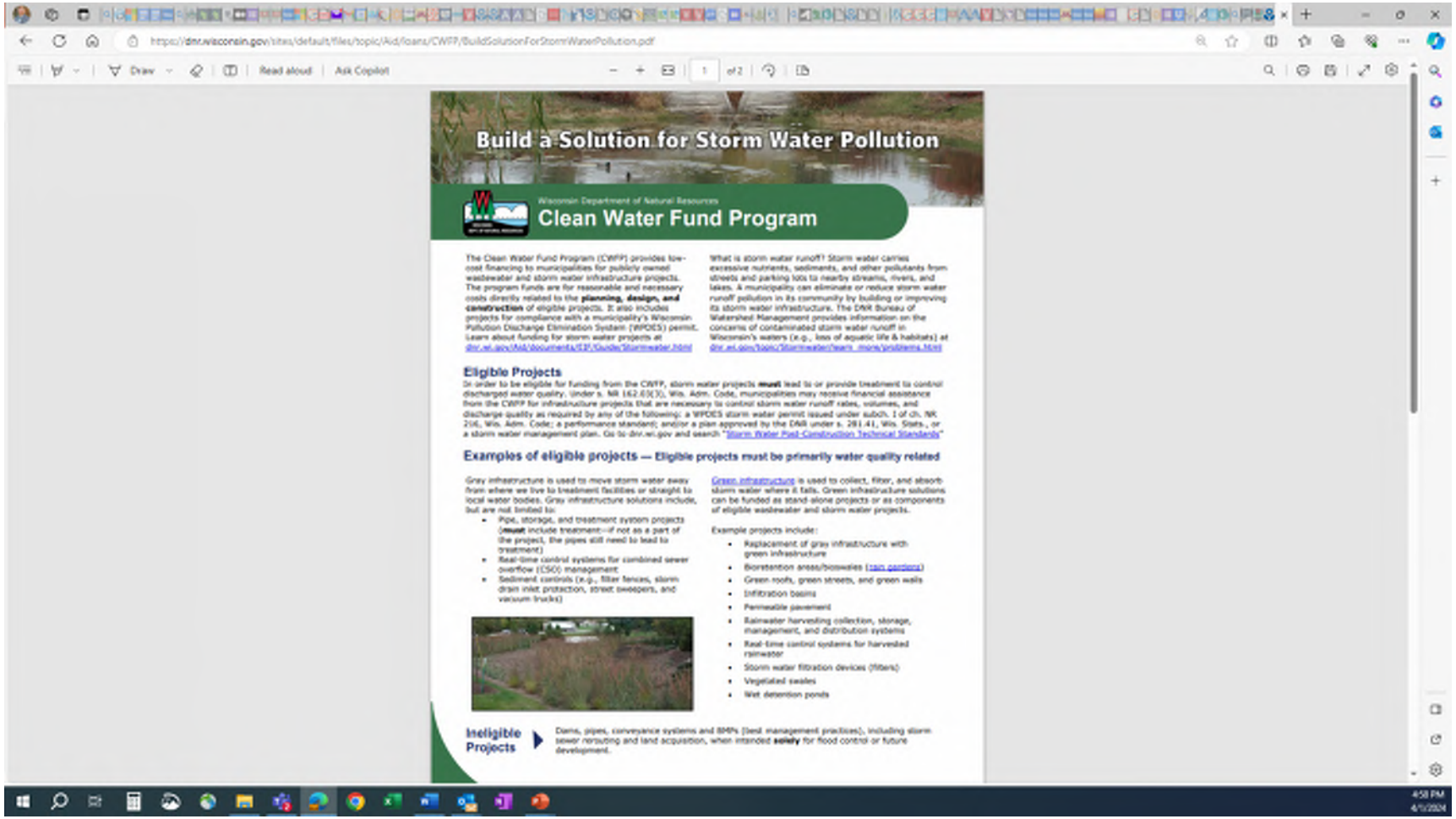
CWFP Focus: Storm Water Projects

https://dnr.wisconsin.gov/aid/documents/EIF/Guide/Stormwater.html



CWFP Focus: Storm Water Projects

https://dnr.wisconsin.gov/sites/default/files/topic/Aid/loans/CWFP/BuildSolutionForStormWaterPollution.pdf



CWFP Focus: Storm Water Projects

CWFP storm water guidance documents published last year:

- PUB-CF-051 Next Steps for Storm Water Applicants After the ITA
- PUB-CF-052 Application Process and Contents for Storm Water Projects
- PUB-CF-053 Storm Water Application Help Text for the Online System (with new cover page)

Links to these documents have also been added to the following pages:

- Storm Water Projects – under Storm Water Funding Application Process
- Online Systems – under Clean Water Fund Program Online Guidance
- Environmental Loans – under How to Apply tab
- Forms & Publications

CONNECT WITH US

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"WILD WISCONSIN:
OFF THE RECORD"

Join the IWG mailing list

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