

Montgomery Associates: Resource Solutions, LLC 2378 Rinden Rd.
Cottage Grove, WI 53527

July 30, 2025

Mr. Greg Fredrick, Chair Town of Lebanon N1738 County Road R Lebanon, WI 53047

VIA: EMAIL

Re: Activities and Costs

Engineering Support Rock River Flooding Working Group for 2026

Dear Greg:

Thank you for the continued support that Lebanon, Ashippun, Hustisford, and Ixonia have provided for our Rock River Flooding Working Group and our partnership with UW–Madison. Together, we aim to coordinate practical flood-prevention strategies while controlling project costs.

Background - Why Flood Prevention Matters

Over the last 50 years, flood flows on the Rock River have risen sharply. The reach of the Rock River between Hustisford and Ixonia is particularly sensitive to this increased flooding due to its shallow slope and large floodplain area. The increased flooding in this reach of the Rock River has negatively affected agricultural land, woodlands, wetlands, and recreational use. These flooding impacts include:

- More frequent floods and higher flood levels, which intensify flood-prevention challenges
- Longer flood durations that inundate agricultural land, woodlands, wetlands, and recreational areas

The attached figures illustrate the scale of the flood-prevention need:

Figure 1: Map of the area subject to increased flooding

Figure 2: 10-foot water-level fluctuation at the USGS gauge in Lebanon

Figure 3: Parcel-level map showing hundreds of properties that require flood-prevention attention

Figure 4: Rising number of flood-condition days

Figure 5: Steady growth in peak flood discharge and duration since 1934

Current Activities Focused on Flood Prevention

Our team has already:

Completed hydrologic and hydraulic analyses that pinpoint the main flood-prevention targets

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- Formed the Rock River Floodplain Working Group, bringing together local officials, Wisconsin DNR, U.S. Fish & Wildlife Service, Jefferson, and Dodge Counties, and soon the Lake Sinissippi Association and Lake Sinissippi District
- Engaged UW–Madison for climate and water-resource expertise and launched collaboration with the National Weather Service flood-forecasting group

Revised Project Description - Expanding our Flood-Prevention Toolkit

We refined the May 15, 2025, scope (letter to John Bohonek, Dodge County) to address resident feedback and broaden flood-prevention options:

Goals

- 1. Explain why Rock River flood flow and volume has been increasing
- 2. Project future flood-flow and volume changes
- 3. Evaluate the preliminary effectiveness of flood-prevention measures, including:
 - o **Upland runoff storage** (e.g., wetland restoration, reversing artificial drainage)
 - Optimized gate operations at upstream structures to route floods and lower downstream peaks
 - Channel modifications (e.g., selective dredging) to reduce water-level sensitivity to higher discharges
 - Additional flood-prevention ideas identified during stakeholder review. We will also comment on the potential sedimentation impact of the option we consider.

Important Limitation

This phase will **not** recommend specific construction projects or changes to structure-operating orders; instead, it will evaluate flood-prevention options for possible later detailed analysis, permitting and design.

Term of Project and Anticipated 2026 Costs

- Primary flood-prevention leads
 - Rob Montgomery Independent consultant
 - Nick Hayden EOR
- University of Wisconsin–Madison support (no-cost to stakeholders)
 - Paul Buchmann, post-doctoral researcher and Steve Vavrus, State Climatologist
 - Felix Boeing, graduate student and Paul Block, Professor of Civil & Environmental Engineering
- 2026 budget focus
 - Consultant fees for Montgomery and Hayden
 - o Direct expenses for data collection, modeling, and stakeholder meetings



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Activity	2026 costs
Coordinate and direct working group meetings	\$2600
Advise and direct UW-Madison staff on climatology issues analyzing historic and future expected precipitation and Rock River flood discharge for flood prevention purposes.	\$2600
Advise, review technical work, and direct UW-Madison staff on reservoir operation hydraulic issues for flood prevention purposes.	\$3500
Advise and support UW-Madison and Jefferson and Dodge County conservation staff in analysis of effectiveness of restored watershed flood storage in reducing flood damage.	\$1800
Coordinate preparation of project report on 2026 analyses, and present results to stakeholders for flood prevention preparedness.	\$1800
Present report to the Working Group and Dodge County Committee, and answer questions	\$1200
TOTAL	\$13,500

Please contact me at 608-225-0682 or at <u>rob@ma-rs.org</u> with any questions. We look forward to advancing this vital flood-prevention work together.

Sincerely,

Montgomery Associates: Resource Solutions, LLC

Robert J. Montgomery, PE Principal

Enclosures: Contact list for the Rock River flooding working group

Figures describing the flooding problem for the Rock River



CONTACT LIST FOR THE ROCK RIVER FLOODPLAIN WORKING GROUP

US Fish and Wildlife Service - Horicon Marsh *

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Village of Hustisford *

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Town of Lebanon

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Deborah Behl <u>clerk@lebanondodgewi.gov</u>;
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Town of Ixonia

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Town of Ashipunn

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Upper and Lower Watertown Dams*

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State Legislators

Sen. Chris Kapenga <u>Sen.Kapenga@legis.wisconsin.gov</u> Rep. Barbara Dittrich <u>Rep.Dittrich@legis.wisconsin.gov</u>

University of Wisconsin-Madison

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Ken Genskow <u>kgenskow@wisc.edu</u>
Felix Boeing <u>fboeing@wisc.edu</u>

Lake Sinissippi Association and District

We hope to work with the Lake Sinissippi Association and District to identify board members and/or citizen members to participate in the working group

Citizens and Stakeholders

Becca Dymzarov becca@rockrivercoalition.org
Steve Folkman sfolkman@bobcatplus.com
Tim Cargill tim@lyons-electric.com
Rob Montgomery (on behalf of Folkman/Cargill) Rob@ma-rs.org
Nick Hayden (on behalf of Folkman/Cargill) nhayden@eorinc.com



Figure 1: location map showing the area of flooding impact

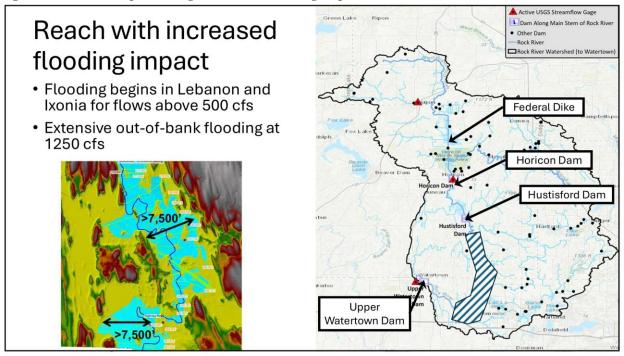


Figure 2: Monitoring data from the USGS gage on the Rock River in the Town of Lebanon showing the large fluctuation in water levels due to flooding

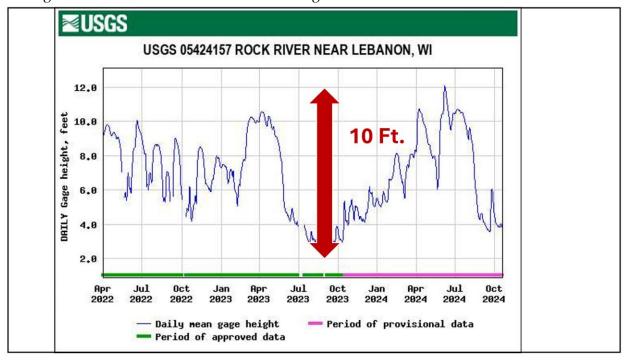




Figure 3: Map showing the parcels inundated under moderate flooding on the Rock River in the Towns of Hustisford, Lebanon, and Ixonia. The area shown in red is frequently inundated, under flows smaller than the 2-year flood. The area shown in blue is the extent of the 100-year flood from the Flood Insurance Study rate map.

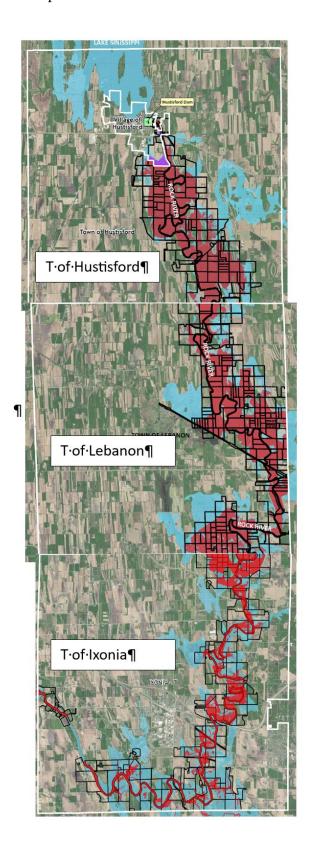


Figure 4: graphic showing the substantial increase over the past 40 years in the number of days each year that have flood conditions in Watertown

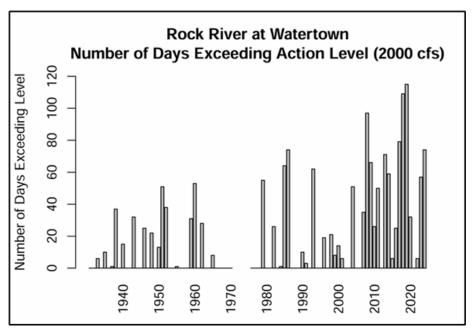


Figure 5: a graphic from the USGS gage on the Rock River Watertown showing the increasing flow in the Rock River from 1935 until 2024

