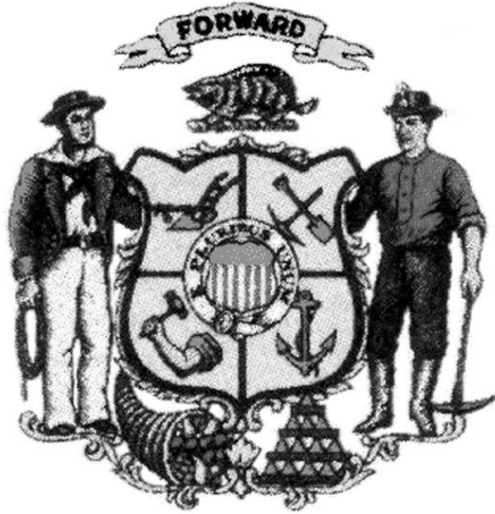


WISCONSIN
LAND & WATER CONSERVATION
BOARD



2023

**Soil & Water Conservation Research and
Educational Needs Survey Report**

Prepared by

LWCB Advisory Committee on Research

&

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Wisconsin Department of Agriculture, Trade and Consumer Protection

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PREFACE

LAND ACKNOWLEDGEMENT

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) has the privilege and responsibility to acknowledge the Indigenous people who have called this land home for generations. This acknowledgement demonstrates our strong commitment to collaborate and partner with the sovereign Tribal nations located in Wisconsin. There are now 12 Tribal nations that call this land home, 11 of which are federally recognized. No matter where you are in the state, you are on the ancestral land of a Tribal nation. The Department reminds each of us to take the opportunity to learn about and appreciate the history of the land we are on and the great historical, present, and future contributions of Indigenous people.

- DATCP. *Land Acknowledgment*. https://datcp.wi.gov/Pages/About_Us/LandAcknowledgement.aspx. Accessed 5 May, 2023

TO THE READER

The Land and Water Conservation Board (LWCB or Board) connects local and state governments on conservation and farmland preservation issues. The Board has many duties under Wis. Stat. § 92.04(4) including, reviewing county land and water resource management plans, reviewing the allocation of state conservation funds, advising the University of Wisconsin System, etc. LWCB is comprised of 11 members who represent the Governor's Office, state agencies, county land conservation committees, urban communities, agricultural producers, river management, and natural resource interests. Chairperson Mark Cupp – Executive Director of the Lower Wisconsin State Riverway Board, currently presides over LWCB.

The Board expresses its gratitude to the soil and water conservation stakeholders who have invested their time and resources to participate in the *2023 Soil & Water Conservation Research and Educational Needs Survey*. Our vision is for this survey to provide a new forum to discuss emerging soil and water conservation issues in Wisconsin. We look forward to continuing our partnerships with you and remain committed to bringing more voices into the conversation.

EXECUTIVE SUMMARY

PURPOSE

The Wisconsin Land and Water Conservation Board supports healthy landscapes with stable soils, clean waters, and productive agriculture. LWCB believes in conservation research and promoting sound conservation practices across Wisconsin to achieve and sustain these healthy landscapes.

Achieving healthy landscapes requires input and support from Wisconsin communities and businesses, local/state/federal governments, and Tribal nations. The Board actively engages with these stakeholders to understand their soil & water conservation needs, the factors that influence their needs including, land use practices, economy, populations, culture etc., and the broader needs across the state. These engagements provide LWCB with a continuous source of present-day information. The Board relies on this valuable information when it acts, each year, to advise the University of Wisconsin System on soil & water conservation research and educational program needs.

METHODOLOGY

Within LWCB, the Advisory Committee on Research (Committee) is charged with leading soil & water conservation stakeholder engagement. In 2023, the Committee launched an annual survey to engage with conservation stakeholders. The Committee prioritized inclusivity when it assembled the 2023 conservation stakeholder engagement list, which included federal & state government, Tribal nations, county & local governments, county conservationists, businesses and non-profits related to agriculture & conservation, and the University of Wisconsin.

The 2023 survey was conducted on the SurveyMonkey virtual platform. An estimated 1,110 persons received an invitation by email or mail to participate in the survey. The survey asked respondents a range of questions to assess their priorities for soil research, water research, and outreach & educational needs related to soil and water. When the survey closed, 143 respondents (13% response rate) completed the survey. Stakeholder responses and feedback will be used to refine future surveys. Appendix – Figure 1 provides a breakdown of the stakeholder sectors represented by the respondents.

FINDINGS

The Committee, in collaboration with DATCP staff, have analyzed responses to the 2023 survey and offer the following findings. The complete response dataset can be provided upon request.

- 1) Stakeholders overwhelmingly reported – by a 2/3 majority – that soil & water outreach and education is their top conservation priority of need. This finding is consistent across every sector surveyed. Appendix – Figure 2 shows the top priorities for each sector.

Within the realm of soil & water outreach and education, stakeholders are mainly concerned for the adoption of existing soil and water conservation practices. Specifically, respondents coalesced around a need for additional outreach and education to connect the economics of soil health practices & best management practices to leverage their adoption with producers at larger scales. Respondents also reported that producers would benefit from additional outreach

at the Tribal, state, and county level; however stakeholders reported they lacked the resources (funding and staff) to increase their outreach efforts. Appendix – Figure 3 shows the other areas of concern respondents identified within the domain of soil & water outreach and education.

- 2) Stakeholders next conservation priority of need is water research, specifically ground water quality. The level of interest here is highest among federal, state, and county governments as well as non-profits. These respondents generally had similar concerns for chemical, biological and nutrient contamination in groundwater supplies. Research and monitoring into the presence of perfluoroalkyl and polyfluoroalkyl substances (PFAS) and nitrogen in groundwater were the stakeholder’s main areas of emphasis. Stakeholders are also concerned for surface water quality and the interactions of surface and ground water. Appendix – Figure 4 shows the other areas of concern respondents identified within the realm of water research.
- 3) Soil research was the lowest priority among respondents. Nevertheless, the private sector, tribal nations, and federal, state, and county governments all reported interest in soil research. Soil health – primarily soil health management systems and soil health assessments – received the highest level of support among these respondents. In this domain, respondents requested research that standardized soil health metrics/attributes/conditions that provide for healthy soils, good nutrient management, and carbon sequestration. Further research and development into successful agricultural management systems that prevent erosion, promote infiltration and increase soil health was also of interest to these stakeholders. Appendix – Figure 5 shows the other areas of concern respondents identified with respect to soil research.

RECOMMENDATIONS

In the pursuit of promoting sound conservation practices that reinforce healthy landscapes in Wisconsin, LWCB offers the following recommendations to its stakeholders and the University of Wisconsin System. Stakeholders with the means to support these recommendations should consider acting in their capacity to prioritize, incentivize, research and/or fund work within these areas. These recommendations are ranked by their overall importance to soil & water conservation stakeholders.

- 1) Further soil & water conservation efforts in Wisconsin by developing, supporting and/or researching the efficacy of outreach and education efforts that focus on increasing implementation, adoption, and/or the effectiveness of Wisconsin’s existing and emerging soil and water conservation practices.
- 2) Lead, collaborate on and/or support groundwater research focused on the presence of chemical, biological, and nutrient contamination – namely PFAS and nitrogen – in Wisconsin’s groundwater supplies.
- 3) Lead, collaborate on and/or support research and the development of soil health management systems and soil health assessments focused on standardizing soil health metrics/attributes/conditions that achieve healthy soils, good nutrient management, and carbon sequestration. Likewise, support research and development into agricultural management systems with the potential to prevent erosion, promote infiltration, and increase soil health.