

**2019 Legislative Recommendations
Legislative Water Commission
Healthy Soil and Healthy Water
October 2018**

Recommendation #2

Not in priority order

Issue: Healthy Soil and Healthy Water

Suggested Legislative Actions:

- **Recognize the value the Minnesota Office of Soil Health**
- **Recognition the need for funding needs for long term research**
- **Promotion of policy: State-wide soil-health action plan**

B 8) In conjunction with the University of Minnesota, create and support an agency program focused on healthy soil and healthy water. Encourage the expansion of existing programs to improve soil health, aimed at increasing agricultural productivity and water retention.

Background: Throughout our state's history, our residents have changed how water flows across the land. The most widespread alteration has been the conversion of native prairie to farmland and the construction of a network of drainage ditches and subsurface tile that have been essential for intensive crop production and transportation. While land alternation to cropland provides benefits, several environmental concerns are associated with agricultural. These include soil degradation, wetland loss, habitat loss, and degradation of downstream water quality, and reduced potential for groundwater recharge. Agricultural practices have altered our natural hydrology and have reduced the health of our soil. We need to increase our efforts to retain water on the land in order to improve natural streamflow, water quality and soil health. The basic question is this: What best management practices are appropriate in specific landscape settings, and how can they be encouraged to improve our water resources and soil health?

Improving soil health is a long-term endeavor. To address that issue, the Minnesota Office of Soil Health has been created as a collaborative initiative between the Minnesota Board of Water and Soil Resources (BWSR) and the University of Minnesota, Water Resources Center. The initiative supports increased awareness of the benefits of soil health and soil conservation through research and outreach that expands tools and skills of Minnesota's conservation delivery professionals. The initiative creates an opportunity for WRC and BWSR staff to collaborate to better align University research, outreach, and innovation with the state's mission to develop and maintain a trained and skilled conservation workforce and partnerships necessary to assist agricultural producers implement soil health principles into their operations through training, technical assistance, and financial incentives. The objectives of the initiative are to:

- Build a professional knowledge base that includes skills associated with soil health principles and associated conservation practices among the conservation delivery system workforce
- Conduct and coordinate applied research that identifies soil health research gaps in relation to the soil-water connection
- Strengthen networks for sharing information and solutions.
- Coordinates tillage, cover crop, and erosion surveys, using satellite imagery, to track tillage and cover-crop practices

- Develop and improve conservation tools and cost effectiveness of land treatment practices and landscape level initiatives such as Reinvest in Minnesota, Conservation Reserve Enhancement Program, and One Watershed/One Plan
- Coordinate soil health and watershed work.
- Integrate the soil health activities with WRC's research and outreach initiatives related to watershed-based conservation planning and implementation.
- Establish and convene an Office of Soil Health Leadership Group to advise on program activities.

This cooperative initiative is a great step forward in promoting programs to improve soil health to improve soil and water quality. However, soil improvement is a long term endeavor. Incentives to improve soil health are included in state statute. What is needed is more research and data to demonstrate how, and which, incentives can be best applied to improve soil health across the state. After evaluation, best- management practices can be paired with existing programs such as the MDA Water Quality Certification Program. Legislative Policy and support are needed that recognize the value of the initiative on a long term basis and to provide funds for the initiative into the future. The should be paired with the preparation of a statewide-soil health action plan that includes research, data collection, economic analysis and market feasibility research that refines and encourages productive incentive programs to improve soil health.

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