



Overview

Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and beautiful landscapes. Along the Mississippi River, when present, healthy soil:

- **Increases Farm Profitability:** Healthy soils can increase farm profits, reduce money spent on fertilizers, and [require less water](#).
- **Reduces Flood Risk and Improves Drought Resilience:** Healthy soils contribute to flood and drought resilience by higher water infiltration rates and increased water holding capacity, collecting excess flood water more quickly than degraded land, and withstanding the shocks of drought, [which reduce erosion](#).
- **Improves water quality:** pollution can be broken down into harmless substances by certain micro-organisms present in the soil and become trapped in the soil.
- **Recharges groundwater:** precipitation falls on the land surface, infiltrates into soils, and moves through pore [spaces down to the water](#), creating a cleaner, healthier Mississippi River.
- **Improved water infiltration into soil and increased plant cover reduces downstream peak water flow:** opportunities for upstream and downstream collaborations.

Soil's Five Essential Functions



Managing Water Resources - Soil helps control where rain, snowmelt, and irrigation water goes. Water and dissolved solutes flow over the land or into and through the soil.



Sustaining Plant and Animal Life - The diversity and productivity of living things depend on soil.



Filtering and Buffering Nutrient Runoff - The minerals and microbes in the soil are responsible for filtering, buffering, degrading, immobilizing, and detoxifying organic and inorganic materials, including industrial and municipal by-products and [atmospheric deposits](#).



Cycling Nutrients - Carbon, nitrogen, phosphorus, and many other nutrients are stored, transformed, and cycled in the soil.



Providing Physical Stability and Support - Soil structure provides a medium for plant roots.

Legislation

Legislation is an effective tool to make an impact and increase state funding for soil health. Below are a few examples:

- **Illinois:** [HB 2737/PA 101-0484](#): Soil and Water Conservation Districts must now include conservation of soil health, organic matter in soil and plants, and water quality and improvement of resilience to droughts, floods and other extreme weather.
- **Washington:** [WA S.B. 6306](#) established a baseline state of the soils, and outlined ways in which the state can make investments to improve soil health. The Soil Health Initiative aimed to improve environmental functions, human nutrition, and agricultural viability in Washington state.
- **Nebraska:** [LB243](#): created a healthy soils task force under the Nebraska state Department of Agriculture. The task force is responsible for developing a healthy soils initiative and a plan to carry it out.

