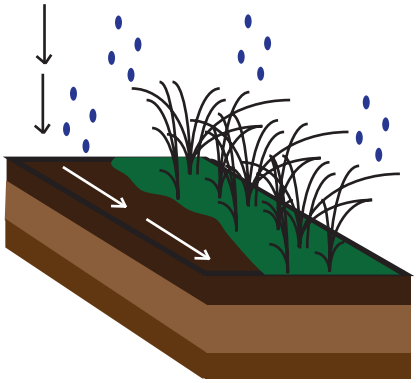
Daily Erosion Project

When travelling across the Midwest in the spring, the occurrence of soil erosion is evident in the gulleys or rills in bare farm fields and cloudy water gushing through streams. Tillage, a weak root system from continuous row crop production, and maintaining bare soils can have devastating long-term impacts on soil health and regional water quality.



Soil erosion is the result of combined effects of precipitation, wind, and land management decisions.

The loss of topsoil is strongly correlated with the loss of future crop yields. Year-to-year losses have a small impact, but the cumulative loss over time could equal a significant loss. According to a 2016 study led by Dr. Richard Cruse at Iowa State University, the cumulative cost of soil erosion in corn and soybean production for a ten-year period could be up to $315 million in Iowa in yield losses alone.

Image of soil erosion in Iowa in Spring 2017.

Farmers and landowners who make long-term investments in their land could have long-term savings in their soil and in their finances.

The first step in managing soil as a resource is to understand how it is being lost in real time. The Daily Erosion Project estimates sheet and rill erosion and water runoff on over 200,000 hillslopes across Iowa.

This is a free tool that is accessible online. Log on today to learn about soil erosion rates and to identify priority conservation areas within your area of the state.

Visit

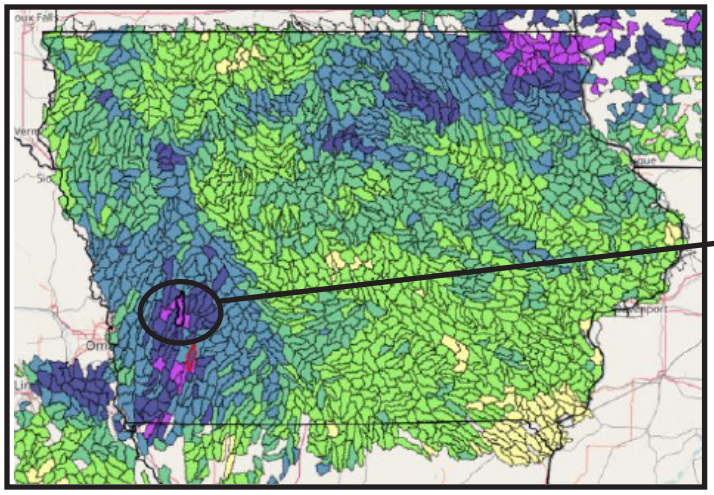
dailyerosion.org

to see what's happening on your farm ground

What will you learn from the Daily Erosion Project?

Headwaters of Walnut Creek in Southwest Iowa

Example of a HUC-12 Watershed from January 2016 - December 2016

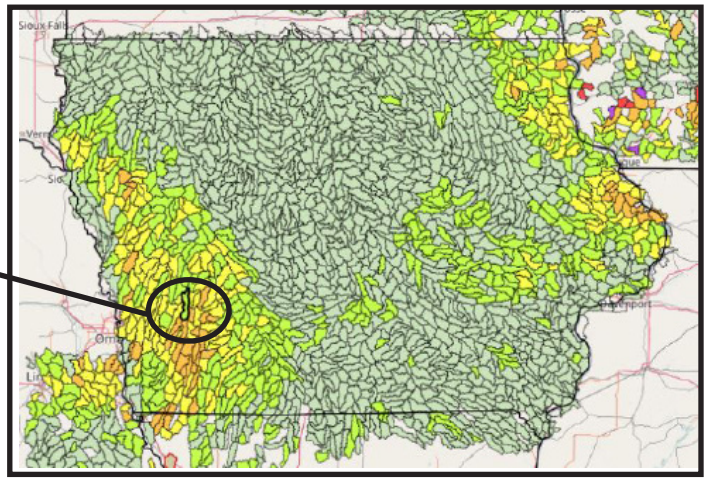


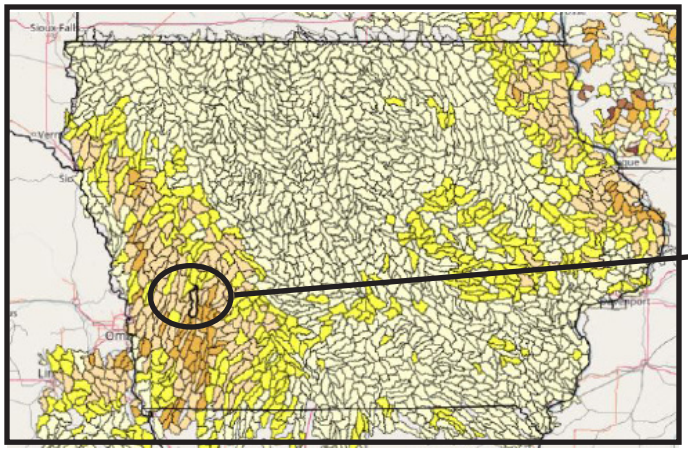
Water Runoff is 12.91 inches.

Runoff is the movement of excess water following a rainfall event. Runoff is used to understand the amount of water that has not infiltrated in the soil.

Soil Detachment is 11.63 Ton/Acre

Detachment is the amount of soil that separates from a land area. The detachment measurement helps us understand the amount of protection the current farming system gives to the soil surface against weather related events. No detachment would indicate the land is fully covered with plant material.





Hillslope Loss is 11.14 Ton/Acre

Hillslope loss is the amount of soil that moves down a slope past a predetermined point on a hillslope. This is used to understand the amount of soil lost from higher up on the hillslope.

This research is administered by: IOWA WATER CENTER