DNR Interactive Mapping

A tool for Iowa agriculture

The planning tools you need to improve both your farming operation and Iowa's streams and lakes are right at your fingertips. With DNR interactive mapping online, you can access a large amount of information for free and without special software.

With the Iowa Department of Natural Resources' interactive maps, you can view and print maps of your farm with as much or as little information and detail as you want.

Maps range from basic road maps and color infrared aerial photography to more detailed data, such as soil loss maps and water monitoring data.

The map to the left shows natural color photography of an area in Pottawattamie County. With the DNR's Watershed Atlas mapping system, you can also view layers of information on top of these aerial photos. Those layers can identify problem areas and help you determine the best locations for solutions.

DNR interactive mapping can help farmers, landowners and other agriculture professionals in a number of ways:

- Print customized maps of your farm
- Find which watershed you live and farm in
- Pinpoint problem areas within a farm field
- Determine need for conservation practices
- Determine placement of conservation practices
- Collect information for manure management plans
- Determine drainage areas
- Determine trends over time
- Locate soil information
- Locate resource information on a property, such as highly erodible soils and timber.

How to Use DNR Interactive Mapping

The best way to learn to use the different functions of interactive mapping is simply exploring the site.

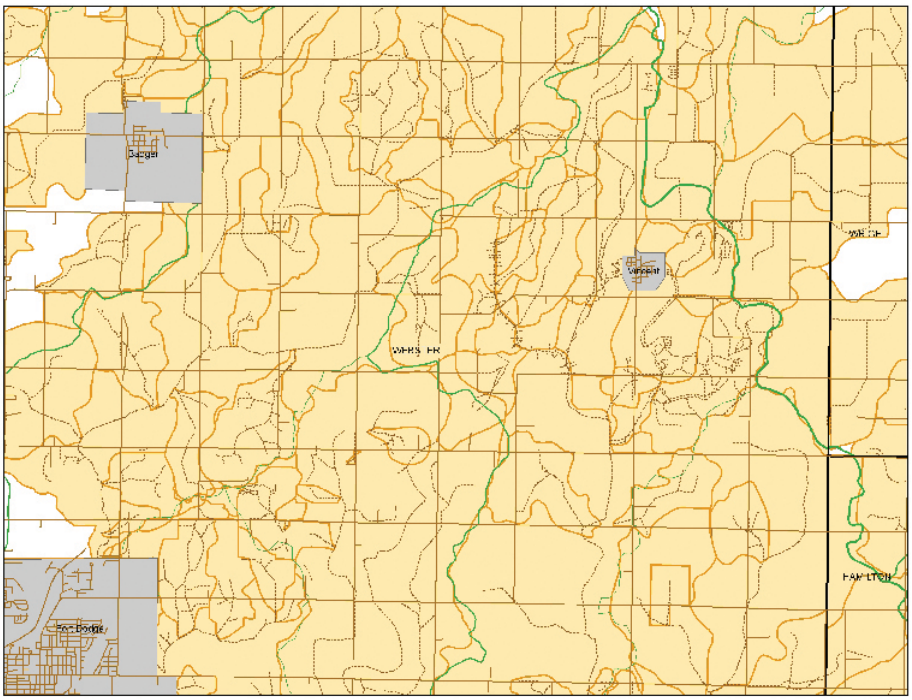
To access DNR interactive mapping, visit www.iowadnr.com and click on "Mapping (GIS Interactive)" on the navigation bar on the left side of the screen. Then, choose the mapping system you wish to view.

No special software, downloads or training are necessary.

An easy-to-use "help" function is located at the top of each map and on the Interactive Mapping home page in the left menu. Click the help link for explanations on how to use the site and the capabilities of different tools and functions.

Visit the site often, as the DNR is constantly making the maps more robust and user-friendly.

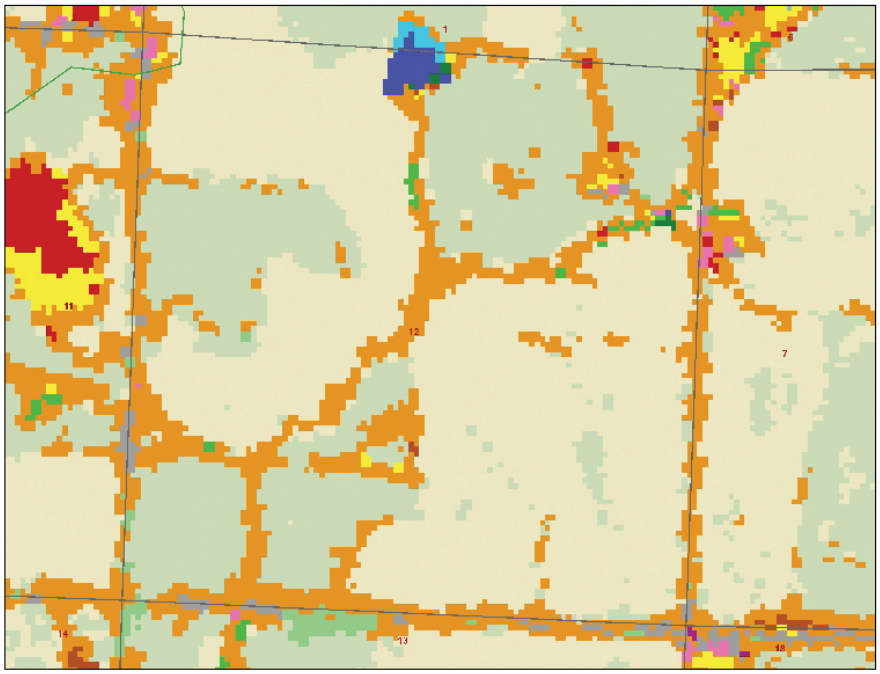
While iowadnr.gov offers a number of interactive mapping applications, th
community is the Watershed Atlas. The atlas helps you determine the wa
a stream or lake — where your farm or home is located. From there, you c
watersheds on a number of levels. Below are just a few examples of the c



Drainage Districts

This mapping tool allows you to find where your land lies within drainage district boundaries.

This mapping tool can also help you determine where county tile lines are located and where runoff carried through tile lines is discharged.

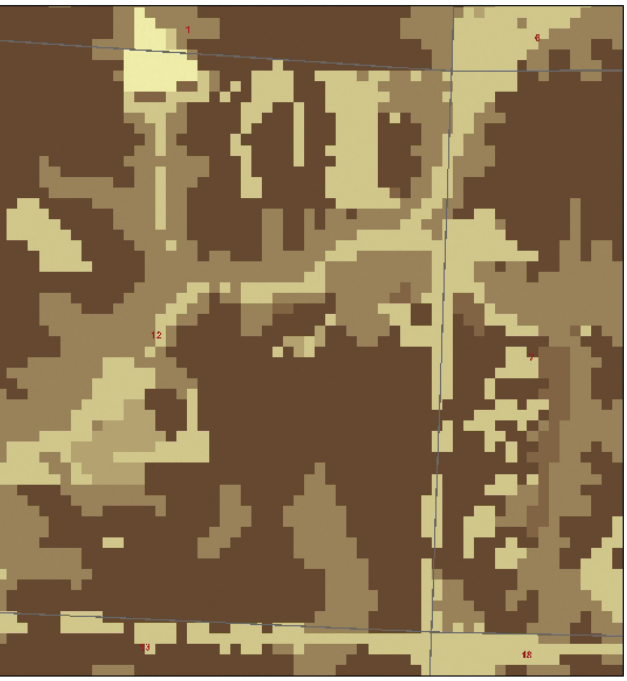


Land Cover (2002)

With the land cover mapping tool, you can see what parts of your land were planted in beans, corn or grassland in 2002.

You can also view areas enrolled in the Conservation Reserve Program, forest, waterways, and residential and industrial areas.

ne most comprehensive for the agricultural
atershed — an area of land that drains into
an explore your watershed and other Iowa
different information available.



Soil Loss

By using this feature of the Watershed Atlas, you can find the areas on your land losing the most soil.

This feature is especially helpful in determining which areas most need conservation practices to keep the soil on the land and out of our water.

Soil Types

This mapping tool identifies different types of soil on your land. It also gives you access to soil survey information such as soybean and corn suitability ratings, slope range and flooding frequency.

The tool also offers an explanation of soil characteristics.

Other benefits of the Watershed Atlas

Reference data

- Color infrared aerial photography
- Up-to-date natural color aerial photography
- Historic aerial photography (limited counties)
- Topographic (contour) maps
- Geographic features
- Watershed boundaries
- DNR land boundaries
- Road network

Soil and land features

- Elevation
- Shaded relief
- Potential soil loss
- Soil erodibility
- Percent slope
- Corn suitability ratings
- Hydric soils
- Land cover
- Acre calculator
- Manure management plans

Drainage

- Annual precipitation
- Public drainage infrastructure
- Organized drainage districts

Water quality data

- Impaired streams and lakes
- IOWATER volunteer monitoring data
- IASTORET professional monitoring data
- Link to Iowa Lakes Database for detailed data and lake contour maps
- Link to Iowa Watershed Initiative website for in-depth watershed-level data

Historical photos for future farming

Using conservation practices to save soil and keep Iowa's water clean is not a new idea for many Iowa farmers.

Many Iowans have been using conservation practices over the years. Historical photos now available on the DNR's interactive mapping site show how conservation practices have made improvements for Iowa's environment.

1938: Gullies form, eroding soil.

2002: Terraces and retention ponds reduce erosion and sediment reaching the stream.

The historical photos were shot in 1938 as part of the first statewide fly-over in Iowa, conducted by what later became known as the Farm Services Agency (FSA). Periodically, the FSA gathered aerial photography for land use review and soil survey development.

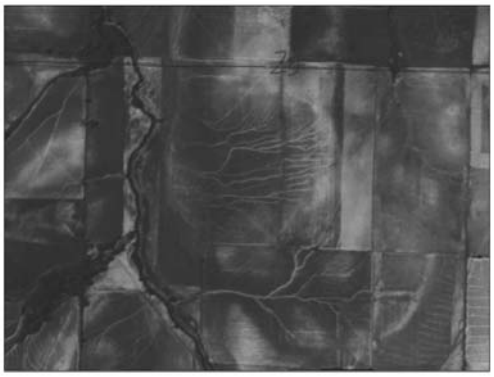
Iowa's landscape has seen many changes since 1938. The photos show changes in river channels, a shift from agricultural to suburban land use, increases and decreases in natural vegetation, and the appearance of conservation practices.

Comparing recent aerial photos with the 1938 aerial photography shows significant progress over the past 65 years. However, the maps can also show where improvements still need to be made.

How do I access the photos?

Currently, the 1938 photos are available from the GIS Orthoserver at http://ortho.gis.iastate.edu. The maps will also be offered through the DNR's interactive mapping site.

While only 13 counties are currently available, counties will be added regularly to the site. Visit the site often to see if your county has been added.



1938: A heavily eroded field with no buffer between field and the creek.

2002: Terraces reduce erosion and riparian buffers protect the creek.

Other DNR Maps

DNR Interactive Mapping extends beyond the Watershed Atlas. Some of the other available mapping applications include:

- AFO Siting Atlas
- Livestock Burial Zones
- Hydro-geologic Atlas
- Water Monitoring Atlas
- Basic Map and Photography Viewer
- Recreation Map

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