Big Hollow Watershed Newsletter

DES MOINES COUNTY SOIL & WATER
CONSERVATION DISTRICT
3625 FLINT RIDGE DRIVE
BURLINGTON IA 52601
(319) 753– 6221 ext. 3
franklin.boyer@usda.gov

Meet the Watershed Coordinator

March 2023

Hello everyone, my name is Frank Boyer and I am your new Big Hollow Watershed Coordinator. My passion for the outdoors was influenced by my family, friends and proximity to Shimek State Forest in Lee County. As a child, I spent a considerable amount of time hunting and fishing and knew I wanted to pursue natural resources as a career.

I attended Iowa State University and received a bachelor's degree in Forestry: Conservation and Restoration. While I was earning my degree, I worked for the university as a streambank research technician. This experience was great because it allowed me to see examples of how different practices impact stream conditions.

After graduation, I became the natural resource manager for the Wapello County Conservation Board. There I spent 9 years managing over 2,000 acres of the conservation board's diverse prairie and forest resources. Last year I switched roles and became Wapello County's Roadside Manager/Weed Commissioner.

My family and I relocated back to the area where I grew up. When the Big Hollow watershed coordinator position opened up, I knew I needed to apply so I can work closer to home. I appreciate the opportunity to apply my knowledge and experience to the Big Hollow watershed. I look forward to working with the landowners to complete their conservation goals.

CRP General Sign-up

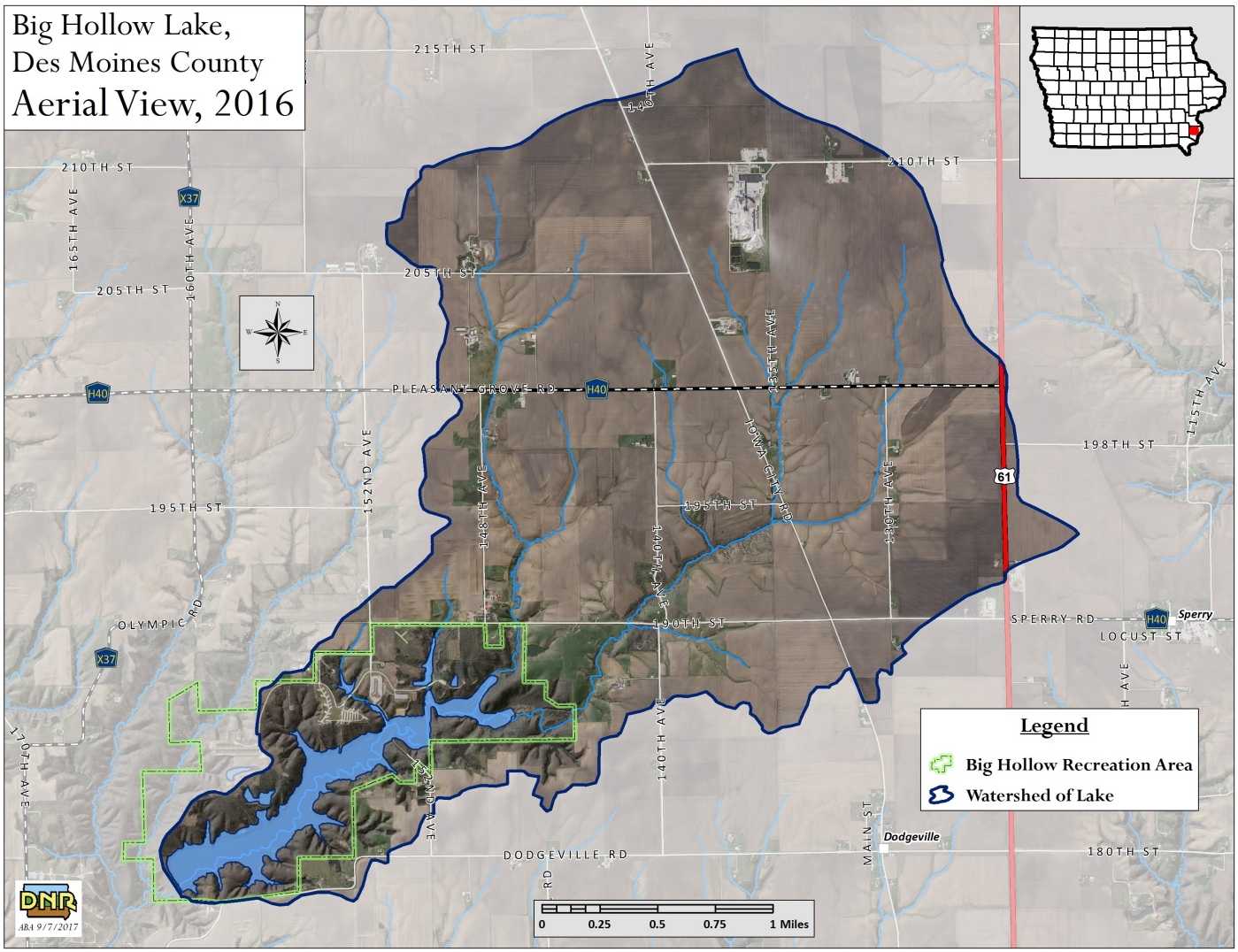
Going on NOW! Stop in to sign up for the Conservation Reserve Program (CRP). Through the general sign-up you can try to bid in whole fields or parts of fields to plant into perennial cover.

This is a good opportunity to try to enroll steep or less productive areas on your farm. It can also be used to create buffer strips to decrease runoff and increase water quality. If you are interested in signing up you can do so at the Farm Service Agency (FSA).

The deadline to enroll is **April 7th**.

Big Hollow Watershed Newsletter

Map of the Watershed



Big Hollow Watershed Project Goals

Goal 1: Reduce phosphorus and sediment delivery to Big Hollow Lake.

Phosphorus and sediment delivery to the lake can be reduced by implementing conservation practices. Cost share is available for cover crops, no-till, terraces, and grade stabilization structures. Stop in today to see what may fit into your conservation planning needs.

Goal 2: Monitor Water Quality

Monitoring the water quality is used to establish trends and track progress from conservation efforts. In-lake water monitoring has been conducted by the Iowa Department of Natural Resources since 2011 and the watershed stream monitoring has been conducted by the Des Moines County Conservation since 2021.

Big Hollow Watershed Newsletter

Kickoff Meeting!

Big Hollow Open House & Watershed Project Kickoff

March 30, 2023 5:00-6:30 PM

Hickory Shelter @ Big Hollow

What's with all the tree clearing next to the campgrounds at Big Hollow? What's being done about the summertime algae on the lake there? Also, who's hungry?

Join staff from Des Moines County Conservation and the Des Moines County Soil & Water Conservation District for a free dinner and the answers to all your questions about Big Hollow. Tour the sites where new campsites and sediment ponds will be built later this year. Hear about cost-share opportunities for installing conservation practices throughout the lake's watershed. Meet Frank Boyer, the new Watershed Coordinator with the SWCD.

This event is free and open to the public but pre-registration is required for dinner. Register online or by phone at (319) 753-8260.

Brought to you by:

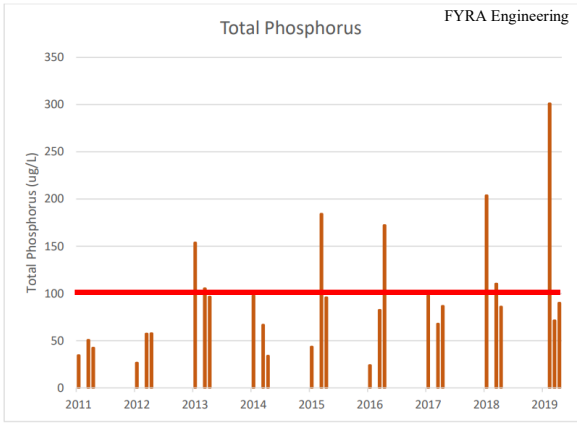
Des Moines County Conservation

www.DMCconservation.com

Big Hollow Watershed Newsletter

Why is Phosphorus Management Important?

Phosphorus is important because it is the main pollutant at Big Hollow Lake. Phosphorus is a key nutrient in algae growth. When there is too much phosphorus in a water system, the result is an abundance of aquatic plant growth. Too much algae growth decreases water clarity and makes the water look dirty. The current average annual water clarity depth is about 5 feet. That number can go as low as less than one foot in the summer time when the algae is in full bloom. Increased plant growth can be harmful to fish and other aquatic animals. As the plants die and decompose, the process removes the dissolved oxygen (breathable oxygen) from the water. This causes fish to have a hard time breathing and could lead to a fish kill. Limiting the amount of phosphorus flowing into Big Hollow Lake can limit the chances of fish kills and make the water look cleaner.



Total Phosphorus graph from Big Hollow Management Plan
Measurements higher than 100 ug/l are extremely high

Phosphorus can enter the lake in the form of runoff from soil erosion, fertilizer applications, animal manure, and faulty septic systems. There is an estimated 6760 pounds of phosphorus per year entering Big Hollow Lake every year. The goal of the Big Hollow Watershed Project is to reduce the amount of phosphorus entering the lake to less than 2630 pounds per year. There are multiple practices that can be implemented to reduce soil erosion and nutrient runoff from the landscape. The practices that are highest in priority for this year are cover crops, no-till planting, terrace construction, and a grade stabilization structure.

Cover crops are an annual species that is planted between the times that there are no cash crop growing in the field (fall through spring). They are used to prevent erosion and hold nutrients in the field.

No-Till is where the crop is planted into the previous crop residue with no soil tillage. Tillage disturbs the soil and increases the amount of erosion that occurs.

Terraces are embankments built in the field to catch runoff and reduce sediment movement.

Grade stabilization structures are embankments constructed to stop gully erosion. They decrease soil erosion and increase water quality.

The practices that have been mentioned are highly effective to reduce soil erosion. Soil erosion is the main transport vehicle for phosphorus delivery into Big Hollow Lake. If these and other practices are implemented in the watershed, the condition of the lake will improve. Remember, there are cost share programs available to implement these and other practices.

Conservation Partners:

USDA United States Department of Agriculture

Natural Resources Conservation Service

DNR

Funding provided by the Iowa Department of Agriculture & Land Stewardship – Division of Soil Conservation and Water Quality and by the Iowa Department of Natural Resources through a grant from the U.S. Environmental Protection Agency under the Federal Nonpoint Source Management Program (Section 319 of the Clean Water Act).

Equal Opportunity Employer

IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP

DES MOINES COUNTY SOIL & WATER CONSERVATION DISTRICT