OVERVIEW OF SHELL ROCK RIVER WATERSHED

Watershed Issues

The Shell Rock River runs from Albert Lea, Minnesota to its confluence with the Cedar River a few miles north of Cedar Falls in Iowa.

- three-fourths of that area (533,000 acres) in north central lowa.
- Mitchell, Cerro Gordo, Floyd, Butler, and Bremer Counties.

A Coalition of Local Partners

In 2021, several cities, counties, and soil and water conservation districts (SWCDs) voluntarily joined together to create the Shell Rock River Watershed Management Coalition (SRRWMC)

- lowa portion of the watershed.
- voluntary watershed management plan.

» The full watershed is approximately 691,000 acres, with a little more than

» The lowa portion includes partial areas of seven counties: Winnebago, Worth,

» The SRRWMC's goal is to participate in the management and enhancement of the

» In 2022 the SRRWMC received grant funding to begin the development of a







Coalition Members:

Cities

- » Nora Springs » Plymouth
- » Shell Rock » Northwood

Counties

- » Bremer » Floyd
- » Mitchell » Butler
- » Cerro Gordo » Worth

Soil and Water Conservation Districts (SWCD)

- » Bremer » Floyd
- » Butler » Mitchell
- » Cerra Gordo » Worth



The watershed planning process is focused on the following issues:

- » Water Quality
- » Flooding
- » Recreation

members, farmers, and other stakeholders.

Project Timeline





The watershed plan will identify and prioritize projects and activities to address watershed concerns. Implementation of the plan is based on voluntary cooperation between SRRWMC

April 2023

- » Quarterly Meeting
- » Draft goals
- » Draft Chapters 1-4

- » Project kickoff
- » Scoping & issues ID

» Public Scoping Meeting - TODAY!

Stay Connected



www.jeo.com/shell-rock-river-wmc

www.facebook.com/ShellRockWMC

@ShellRockRiver



July 2023

- » Quarterly Meeting
- » Draft action plan
- » Draft Chapter 5



project, stay up-to-date with the planning process and upcoming events, and review the Shell Rock River Watershed Management

Visit any of the links at left

to learn more about the

Plan (when available).

October 2023

- » Quarterly Meeting
- » Open house planning
- » Draft Chapters 6-8

December 2023

- » Board Meeting
- » Adopt final plan



November 2023 Public Open House

» Review full draft plan



WATER QUALITY CONCERNS IN THE WATERSHED

Concern



Nutrient Pollution (Nitrogen and Phosphorus)



Erosion & Sediment Pollution



E.Coli Bacteria Pollution

Effects

- Excess nutrients can lead to algae blooms in waterways.
- When the algae begins decomposing it reduces oxygen in the water which harms aquatic life.
- Sometimes these blooms are dominated by bluegreen algae, which produces toxins that can be harmful to humans, livestock, and pets.
- High levels of nitrates in drinking water can cause blue-baby syndrome in infants, and are regulated by EPA drinking water standards.

Potential Sources

- Fertilizer
- Soil erosion
- Manure application
- Small open feedlots
- Tile line drainage
- Grazing livestock
- Stream erosion
- Wastewater treatment systems

- Sediment transports other pollutants with it - Increases water turbidity (reduces clarity) - Buries stream and lake bottom aquatic habitat - Loss of farmland or threats to infrastructure - Loss of usable lake areas – recreation impacts

- Streambank and bed erosion
- Farm field erosion
- Construction sites
- Livestock use areas

- Ingesting water with disease-causing bacteria, viruses, or parasites (collectively called pathogens) can make you sick.
- Effects could include: diarrhea, vomiting, cramps, nausea, headaches, fever, fatigue, and even sometimes death.
- E. coli bacteria testing is used as an indicator for harmful pathogens in the water.

E. coli bacteria originates from fecal matter:

- Wildlife
- Livestock

- Wastewater treatment systems



- » Is information on Shell Rock River's water quality easy to obtain? Are you aware of current water quality conditions?
- » Is good water quality important to you, others in the watershed, or to the area's economic viability?
- » What activities do you think harm water quality the most?
- » What resources do cities, counties, farmers, or others need to help improve water quality across the watershed?





What are your concerns or interest) regarding Shell Rock River water quality?



FLOODING RISKS IN THE WATERSHED

Flooding Risks are High Across the Watershed



Information based on historical records and risk assessment data provided in county hazard mitigation plans.

Cities at Risk to Flooding from **Shell Rock River**

- » Clarksville » Northwood
- » Manly » Greene
- » Kensett
- » Plymouth
- » Rock Falls

1393 ft

» Dougherty

- » Shell Rock
- » Marble Rock
- » Nora Springs
- » Rudd

Current Tools to Reduce Flood Risk



Forecasts for the Shell Rock River (Northeast IA) at Shell Rock are issued as needed during times of high water, but are not routinely available.







Iowa Flood Information System (IFIS) https://ifis.iowafloodcenter.org/ifis/



- Where? What were the impacts?
- flood risks?



What are your concerns or interest regarding Shell Rock River flooding?

» Have you experienced flooding in the watershed?

» What resources does your community need to mitigate

» Is your community willing to work with other communities to solve flooding at the watershed scale?



Existing Recreation Areas



RECREATION OPPORTUNITIES IN THE WATERSHED

Existing Facilities

- » Wildlife areas (wetlands, prairies, forests)
- » Camping
- » Picnicking
- » Hiking

- » Horse riding
- » Skiing
- » Hunting
- » Fishing
- » **Boating**



» Canoeing/ Kayaking

Recreation areas can also provide benefits of reduced flooding, improved water quality, and enhanced wildlife habitat.



- » Is recreation important in the watershed?
- » Are there any under served areas of the watershed?
- » What new or additional types of recreation are needed?



What are your concerns or interest regarding Shell Rock River recreation?

