



september 2023

DICKINSON

Conservation

DISTRICT



FEATURED ARTICLES:

- **NONPOINT SOURCE POLLUTION - WHAT IS IT AND WHAT CAN WE DO ABOUT IT?**
- **EMPLOYEE PROFILE: JOSH ISAAC, DISTRICT FORESTER**
- **HYBRID PHRAGMITES?!? WRISC INVESTIGATES...**
- **UPCOMING EVENTS**

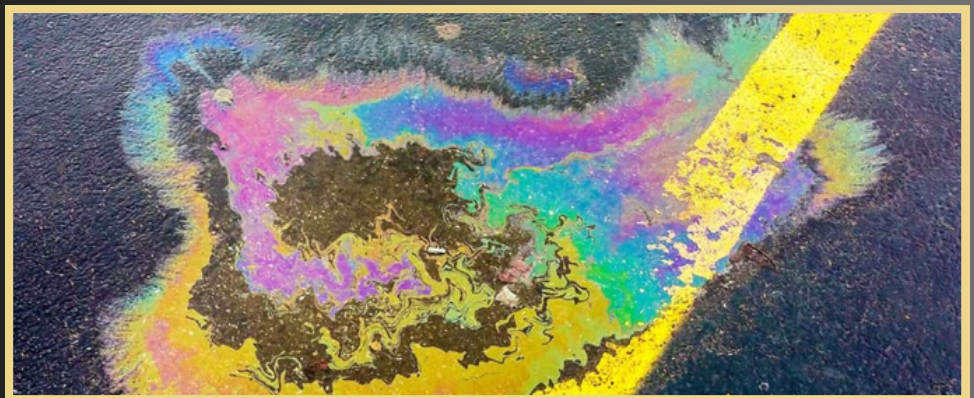
Nonpoint Source Pollution: What is it and what can we do?

Pollution, as we all know, is the introduction of harmful materials into the environment. A "point source" is a discharge from an industry or municipality - picture a pipe from a factory that drains into a river. So now that you know what it isn't, what is "nonpoint source pollution"? In short, it's everything else.

Nonpoint source pollution comes from oil, pet waste, pesticide, herbicide, fertilizer, road salt, bacteria, sediment, and any other contamination that ends up on the ground. Rainwater and snowmelt carry these contaminants into our streams and lakes. Unsurprisingly, this has a negative effect on the water quality and, by extension, on the health of plants, animals, and people in the affected area.

Major types of nonpoint source pollutants include E. Coli, nitrogen, phosphorus, sediment, oils/chemicals, and even temperature. E. Coli, while not extremely dangerous by itself, often indicates the presence of more dangerous pathogens. Pet waste is a large contributor. Nitrogen and phosphorus damage waterways in a different way; they promote excessive plant and algae growth that can deplete the water's oxygen supply, suffocating fish and other aquatic creatures. Fertilizer is the primary source of this type of pollution. Sediment is the most common pollutant according to the EPA, and up to 30% of sediment in our waters occurs naturally. Unfortunately, adding another 70% on top of that can smother aquatic animals and make flooding more likely. Oils and chemicals introduced into the water not only kill important plants and animals, but can directly injure people who recreate in or drink the water. Temperature itself can also cause damage by reducing the amount of dissolved oxygen in the water, stressing the animals who are adapted to the natural temperature or even making it completely unlivable for them.

Automotive oils are a major source of nonpoint source pollution.



What can be done to mitigate the damage? Quite a bit! For most people, disposing of oil and household chemicals properly, picking up pet waste, and only using fertilizers, pesticides, and herbicides in accordance with their directions are great steps to take. If you have a waterway, make sure to keep livestock and domestic animals out of the water and maintain healthy vegetation along the banks. This will help keep temperatures down and will also reduce erosion. While nonpoint source pollution is likely going to exist at some level for a long time, we can all do our part to reduce the amount we generate.

Employee Profile: Joshua Isaac

District Forester



Josh, the District Forester, joined the District in 2021. His responsibilities include public outreach (for example, tree identification hikes), visiting private and public properties experiencing forestry concerns (a tree in poor health), providing technical assistance to landowners (what to do about the unhealthy tree), educating the public and natural resource issues and best practices (how to care for this type of tree), and participating in regional conferences as a subject matter expert (what does the research tell us about the future of these trees?). That's a lot of duties!

"People think forestry is just cutting trees and it's really not. It's about building and understanding the relationships between forest communities and people."

Josh is a Michigan native with a degree in Forestry from Michigan Technical University. In addition to his forestry work, Josh has training in wilderness survival, search and rescue, edible mushroom identification, wildland firefighting, and as a wilderness first responder. In his free time, Josh enjoys creating art, football, hunting, fishing, and billiards.

Have a natural resource question?
Give Josh a call at (906)774-1550 ext. 100

Hybrid Phragmites?!?

The team at WRISC (Wild Rivers Invasive Species Coalition) made a VERY interesting discovery during a site visit! They found two stands of Phragmites (a type of reed grass) next to each other - one stand of the native species and the other of the invasive species, and in the middle, a patch that seems to have a mixture of traits between the two types. Could this possibly be a hybrid of native and invasive Phragmites?

Thanks to funding from UPRC&D, this site will be genetically tested to put these suspicions to rest. This just goes to show how tenacious invasives can be!

If you have any questions about this research, or other invasive species questions, visit www.WRISC.org or call (906) 774-1550 ext. 102

Upcoming Events

- **October 2nd, 7:30 AM - Dickinson CD Budget Hearing**
 - Held at the USDA Service Center (420 N. Hooper St.) in Kingsford
- **October 19th, 3:30 PM - Dickinson CD Board Meeting**
 - Held at the USDA Service Center (420 N. Hooper St.) in Kingsford
- **October 27th, 10:00 AM - Guided Nature Hike with Forester Josh**
 - Meet at Piers Gorge parking area
- **November 16th, 3:30 PM - Dickinson CD Board Meeting**
 - Held at USDA Service Center (420 N. Hooper St.) in Kingsford

Dickinson Conservation District
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