A Drop of News The Maple City Stormwater Toolbox

U.S. Rivers are Changing Color



The dominant water color showcases the overall health of a river and what outside factors may be impacting the overall river system. Rivers with blue waters are considered close to pristine, while green rivers are impacted by algae, and yellow rivers are full of sediment (like the Elkhart). Runoff from agricultural and urban areas has a big impact on the color of a river due to soil erosion and stormwater runoff washing sediment, nutrients, and other pollutants into the river.

For more information check out these following links:

- For a quick read <u>bit.ly/rvrcolor</u>
- For more details <u>bit.ly/rvrcolor2</u>



The presence of algae turns a waterway green during the summer months as was the case on the Millrace Canal.

Revamped Stormwater Newsletter!



Roots of a tree protecting against erosion and promoting a resilient stream bank

In with the new — We are kicking off 2021 with a brand new format! While keeping the kind of Stormwater content you are used to, we are partnering with the Environmental Resilience Department to bring you a broader range of topics.

In this inaugural issue of our newly revamped stormwater newsletter, you will find a series we hope to bring you throughout 2021. Our "Pollutant Challenge" section will highlight a season relevant pollutant each month and offer things you can do at work or at home to help keep it out of our waterways.

Also in this issue you will find "Impact Your World" with content from the Environmental Resilience Department. With few exceptions, whatever you can do to help protect and improve Goshen's environment will make positive impacts on the quality of our stormwater! We look forward to highlighting this relationship in 2021!

Goshen



January Pollutant Challenge

Will you help keep salt out of our waterways?

Why is salt a problem?

Salt, or sodium chloride, pollution impacts our waterways, vegetation, infrastructure, wildlife, and, at times, even our drinking water. Stormwater from rainfall or snowmelt washes winter road and sidewalk salts into roadside soils and waterways. Salt contamination in soil—soil salination—affects plant growth and can change soil composition in ways that allow contaminants like copper, cadmium, and other heavy metals to leach at greater rates.

Salt in our waterways can lead to an issue researchers have termed "Freshwater Salinization Syndrome." This describes the ways that salt content can increase water pH and affect aquatic life systems. Salt lowers the oxygen level of water needed for healthy fish and other aquatic species. Other impacts on aquatic life range from delayed growth to disrupted feeding. Stressed aquatic species have consequences for overall ecosystem functioning.



Salt collecting near storm drain on its way to the River

What can I do?

Salt pollution may at first seem unsolvable—salt application for deicing is a necessity in a climate like ours. However, there are many methods of reducing salt's impact on our stormwater quality.

Options for reducing salt usage range from specific products like liquid deicers meant for treating surfaces before snow falls to behavioral changes like using the product's recommended amount (often 1-3 cups per 1,000 sq. ft.). Did you know that rock salt (sodium chloride) is ineffective if the pavement is colder than 20 degrees Fahrenheit? In extremely cold weather, use alternatives like sand or birdseed to increase traction. For the adventurous, food waste such as grapes, dandelion leaves, and apple scraps offer a promising future for salt alternatives.

Learn more at <u>https://goshenindiana.org/salt-pollution</u> and find out what the City does to reduce salt pollution on our roadways at <u>bit.ly/winter-sand</u>.

Report a Pollutant

Stormwater pollutants include anything other than rain that could flow or be washed into a
storm drain. If you see a pollutant entering the storm drain please call 574-534-2201, send an
email to <u>stormwater@goshencity.com</u>, or submit a Stormwater Report through the City of
Goshen's new "Report an Issue" button in the upper corner of the City's website
(www.goshenindiana.org).

Public Works & Utilities Department of Stormwater 204 E. Jefferson Street Goshen, Indiana 46528 574-534-2201 bit.ly/goshen-stormwater



Director of Public Works: Dustin Sailor <u>Stormwater Coordinator:</u> Jason Kauffman 537-3832 <u>Stormwater Specialist</u> Mattie Lehman 537-3818

Impact Your World What YOU can do to make a difference

Salt & Vegetation

Recognizing Salt Damaged Vegetation

The most important takeaway for salt usage is, use less - as little as possible! That sounds hard in the winter when you are thinking about preparing your own salt brine or trying to get it applied before the ice and snow falls. It can feel like a time consuming ordeal.

However, when you factor in replacing the row of bushes or the dead grass, it may feel a little more important. This type of damage is visible compared to the damage on local waterways which can be hidden.

Salt damage on plants can be

easy to spot. It is on the side of the plant nearest the sidewalk or road. It can present itself as dead zones or browned leaf edges.

Salt Tolerant Trees and Plants

Some trees and plants are naturally tolerant to salt. Placing

these varieties where plants are at risk of highest exposure,

reduces the likelihood of salt damage.

Honeylocust: Gleditsia triacanthos

Swamp White Oak: Quercus bicolor

Northern Red Oak: Quercus rubra (borealis)

Hedge Maple: Acer campestre - Not Native

English Oak: Quercus robur - Not Native

Black Gum: Nyssa sylvatica Sycamore: Platanus occidentalis

Large Trees — greater than 40 feet tall

London Planetree: Platanus x acerifolia - Not Native

Salt Tolerant Medium Trees – 25-40 feet tall

Nikko Maple: Acer maximowiczianum - Not Native



Purple Robe Locust: Robinia x ambigua - Not Native

Salt Tolerant Small Trees – under 25 feet tall

Amur Maple: *Acer ginnala* – Not Native Pagoda Dogwood: *Cornus alterniflia* Kousa Dogwood: *Cornus kousa* – Not Native

Some Salt Tolerant Plants

Heath Aster: Aster ericoides Snow Flurry Heath Aster: Aster ericoides 'Snow Flurry' New York Aster: Aster novi-belgii Lanceleaf Tickseed: Coreopsis lanceolate Purple Coneflower: Echinacea purpurea Common Sneezeweed: Helenium autumnale Tall, Rough Blazing Star: Liatris aspera

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