



City of Goshen

STORMWATER TOOLBOX

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

Stormwater Superintendent:
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Stormwater Coordinator:
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To learn more about dead zones both in the Gulf of Mexico and the Great Lakes check out the following websites:

- ❖ NOAA—Great Lakes HABs and Hypoxia - <http://bit.ly/1VNYdj8>
- ❖ Hypoxia in the Northern Gulf of Mexico - www.gulfhypoxia.net

Fact: The dead zone in the Gulf of Mexico has been as large as the state of Massachusetts.

Fact: Dead zones form throughout the Great Lakes but mainly in Lake Erie and Green Bay.



Summertime and Eutrophication

Summertime is a time for bike rides, picnics, catching fireflies, grilling, ice cream, baseball, soccer, and pop-up thunderstorms. Just this week a quarter inch of rain fell in 15 minutes at my home, while some of this water soaked into the soil some of it also ran into the street and down the storm drain taking with it any pollutants it picked up. One effect of these pollutants entering our local waterways is the addition of nutrients (mainly nitrogen and phosphorus), which fuels the growth of algae in a process known as **eutrophication**. As the algae grows, dies, and decomposes the amount of dissolved oxygen, which is essential for the survival of fish and other aquatic organisms, decreases, and can lead to fish kills or even areas completely devoid of life called a "dead zone". Dead zones will occur in ponds, lakes, or coastal areas like the Gulf of Mexico. Additionally, the thick growth of algae can lead to a loss of recreational opportunities, tourism, and land values.



The above image shows a thick mat of algae after the small retention basin experienced **eutrophication** due to excess fertilizers washing into it from the surrounding yard.

Each of us can do our part to reduce the chance for **eutrophication** to occur by following these steps:

- 1) Use phosphorus free fertilizers or no fertilizer at all.
- 2) Use only the amount of fertilizer necessary. The old adage of "the more the better" does not apply to fertilizers and any excess will be washed away during the next rain storm. Have your soil tested to determine the correct amount of fertilizer your plants actually need. Contact the Elkhart County Purdue Extension Office for more information on soil testing at 574-533-0554.
- 3) Avoid applying fertilizers or pesticides near bodies of water.
- 4) Grow a buffer of native plants between your yard and the water's edge. This will also help reduce nuisance Canada Geese problems.
- 5) Sweep up excess fertilizers and grass clippings from sidewalks, driveways, and the street.
- 6) Pick up after your pet.
- 7) Maintain and fix faulty septic systems.

Resources and For More Information:

- ❖ What is eutrophication? What are its causes & effects? - <http://bit.ly/29BVtTn>
- ❖ From the Dead Zone to the Buffer Zone - <http://bit.ly/29BVtTn>
- ❖ Human Activity and Hypoxia in Lakes - <http://bit.ly/29BVtTn>
- ❖ Excess Nitrogen and Phosphorus Damages Streams in Ways Previously Unknown - <http://bit.ly/29Nf9Dt>



A DROP OF NEWS

Your Stormwater Newsletter

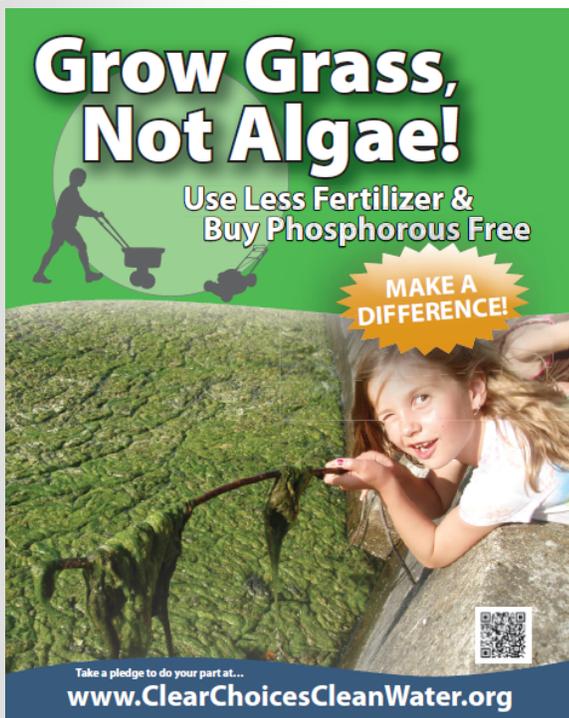
Clear Choices Clean Water

The Greater Elkhart County Stormwater Partnership has joined with the Clear Choices Clean Water campaign. The goal of this campaign is "to increase awareness about choices we make and the impacts they have on our streams and lakes. Water friendly practices such as landscaping with native plants, using less fertilizer, managing yard and pet wastes, maintaining septic systems, fostering soil health, and using less water all help to protect our precious water resources. By educating individuals on these and other important actions and giving them the tools needed to make behavior changes, *Clear Choices Clean Water* empowers everyone to do their part for water quality and conservation."



<http://indiana.clearchoicescleanwater.org/>

Make an online pledge to use less fertilizer, a pledge to pick up after your pet, or one of the other six pledges and see how your actions have a positive impact in keeping our local waterways clean!



<http://indiana.clearchoicescleanwater.org/lawns>



<http://indiana.clearchoicescleanwater.org/pets>

Report an Illicit Discharge

An illicit discharge is anything other than rain that could flow or be washed into a storm drain. If you see something that doesn't look right please call 574-534-2201, send an email to jasonkauffman@gohsencity.com, 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).

