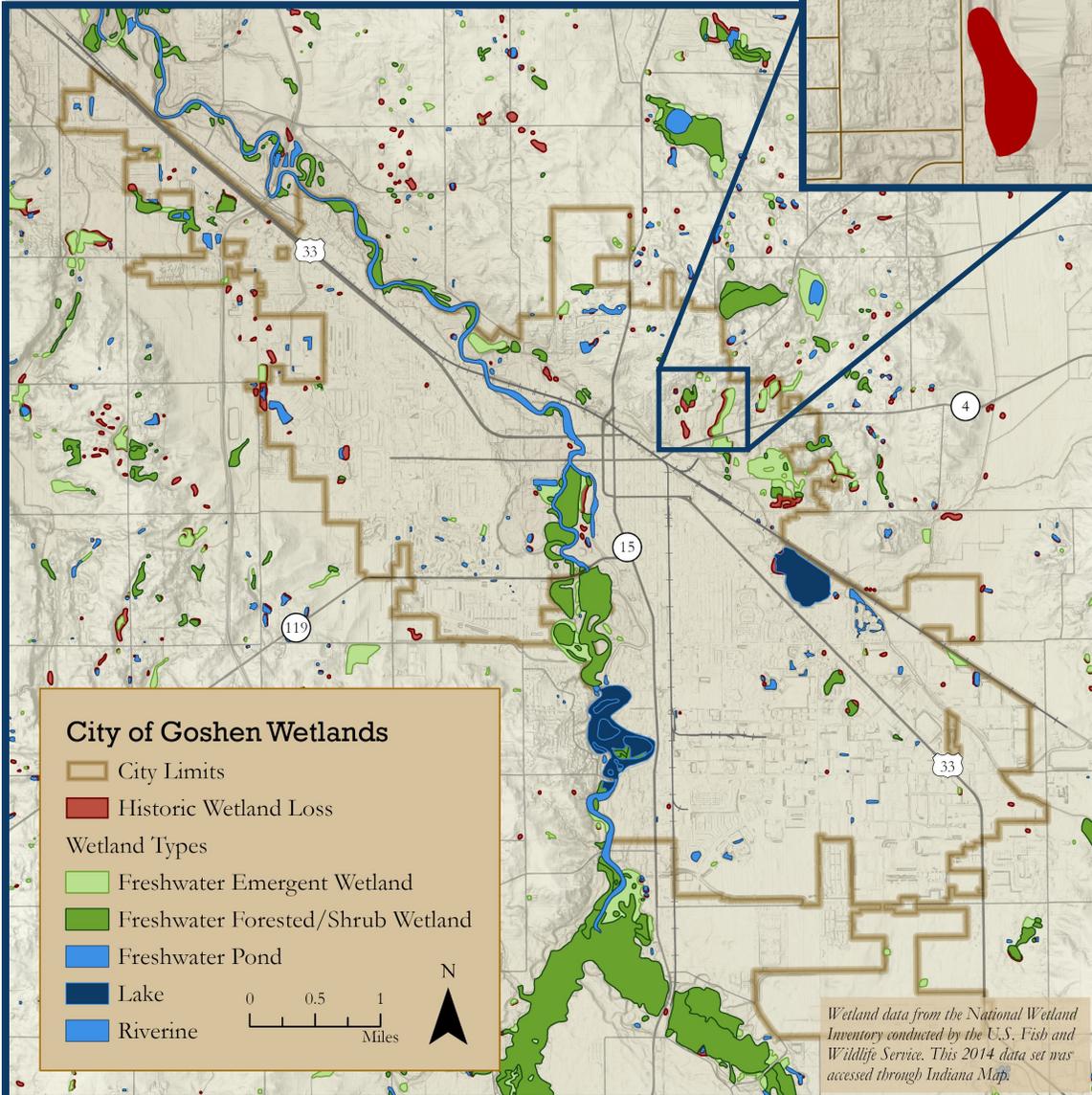
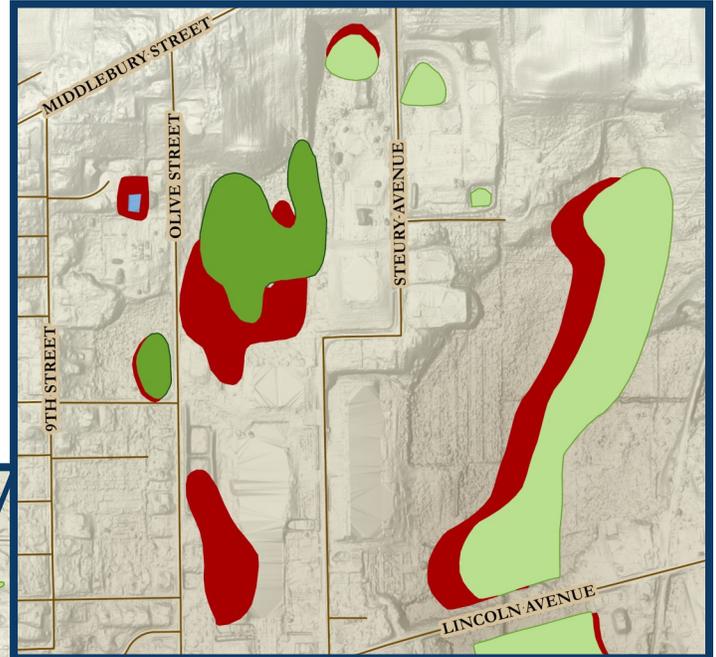


The Wetlands Issue!



Goshen’s Wetlands — When you walk through Goshen’s Parks, what do you notice? Have you walked the Millrace Trail in the spring and been spooked by a harmless snake darting from the wet woody areas? What about in Abshire Park where the tree line suddenly gives way to tall grasses and the trail gains a sort of squishy bounce? If this sounds familiar, you have explored a few of Goshen’s wetlands.

Public parks have gone a long way in protecting valuable wetland resources; however, agriculture and urban development have resulted in the partial to full loss of some historic wetland areas.



These maps show our current (green) and historic (red) wetland areas as approximated by the U.S. Fish and Wildlife Service using satellite imagery, ground research, historic maps and inventories, soil types, historic water levels, and topography (note, additional wetlands may exist).

We took a closer look at a few wetlands in the Chamberlain neighborhood by zooming in on the area. On page two, we use this area as an example to discuss the stormwater benefits of “isolated” wetlands like these.

Look for a larger version of the map at bit.ly/GoshenWlndsMap.

Will you help save Goshen's wetlands?



Skunk cabbage, a common wetland plant

Wetlands—Nature's Kidneys and Sponges

To tell the story of the benefits wetlands provide from a stormwater perspective, let's use the wetlands around Olive Street and Steury Avenue as an example.

The shrub, emergent, and forested wetlands found in this area act like our own body's kidneys by filtering common stormwater pollutants, like excess sediment and nutrients.

This ensures cleaner, safer water infiltrates and recharges our groundwater supplies. Good thing too! These wetlands sit atop our wellhead protection zone—the area from which our drinking water is withdrawn.

Wetlands also act like stormwater sponges by slowing, capturing, and holding water with their deep-rooted vegetation. Isolated wetlands develop around low areas where stormwater naturally collects. If development were to further disrupt the wetlands on either side of Steury Avenue, property owners and the City would need to arrive at some other method of dealing with stormwater—at great cost. Installing City stormwater pipe to replace the lost wetland and direct water to Rock Run Creek would cost taxpayers over a hundred thousand dollars and the additional stormwater increases the flood risks downstream. The loss of a single wetland only slightly increases this risk, but losing entire isolated wetland chains could be catastrophic!

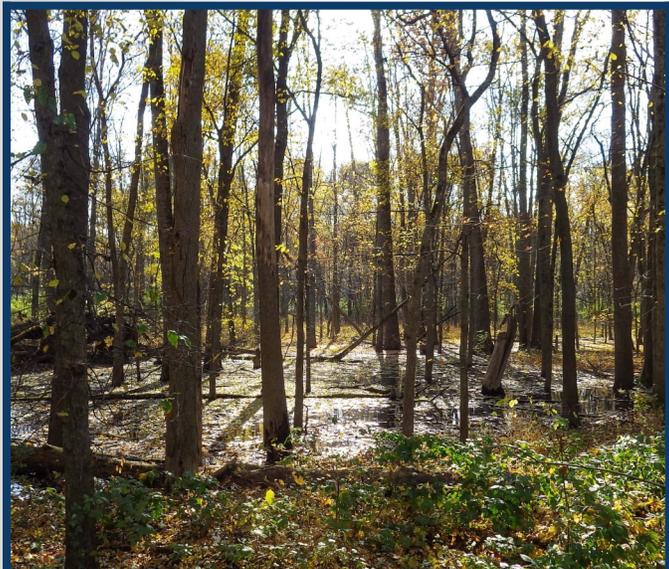
Our wetlands are under threat...

Senate Bill 389 (SB 389)—In Indiana, past legislatures recognized the importance of wetlands in our state and have passed protections that made us a model state for wetland preservation. That commitment is under threat in this year's legislative session with the recent passage of SB 389. The U.S. Environmental Protection Agency regulates many wetlands, but federal rules

currently leave out protections for **isolated wetlands** that do not have a direct connection with a watercourse—like those along Olive Street and Steury Avenue. Current Indiana law fills this gap.

SB 389 would repeal our wetland law in its entirety if allowed to go into effect; however, there is still hope to fend off this attack on wetlands! To become law, similar legislation would need to pass the Indiana House of Representatives and be signed by Governor Holcomb. If you want to help protect and preserve Indiana wetlands today, and for years to come, make your voice heard and contact your representative. The Hoosier Environmental Council is closely tracking these efforts to repeal our wetland protections and you can find their updates and more ways to help at

www.hecweb.org/bill-watch-2021.



Forested/shrub wetland near the Millrace right here in Goshen!

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 a storm drain please call 574-534-2201, send an email to stormwater@goshencity.com, or submit a Stormwater Report through the City of Goshen's "Report an Issue" button in the upper corner of the City's website (www.goshenindiana.org).

Director of Public Works:
Dustin Sailor

Stormwater Coordinator:
Jason Kauffman 537-3832

Stormwater Specialist
Mattie Lehman 537-3818

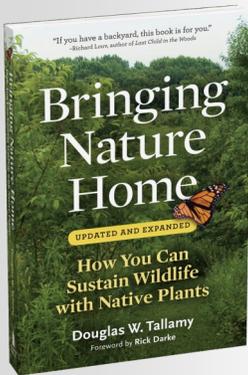


Public Works & Utilities
Department of Stormwater
204 E. Jefferson Street
Goshen, Indiana 46528
574-534-2201
bit.ly/goshen-stormwater

Impact Your World

February 2021

What YOU can do to make a difference



Backyard Habitats



Evan Miller is rebuilding the ecosystem of his yard. When he moved into his home on Third St. more than a decade ago, it was pretty barren – “monocultured and dead” with grass and some rose bushes. He tore out a cement patio in the back yard, rehabbed the soil, and then planted native grasses and forbs (flowering plants). He established raspberries and was delighted to see how readily they took off.

Several things inspired Evan. He says part of it was a growing awareness about disappearing populations of pollinators, like birds, bees, butterflies, and other insects. Part of it was conversations with other people in and around Goshen who were doing some unusual things in their urban landscapes, such as orcharding and pocket prairie creation. And then there was *Bringing Nature Home*, by Doug Tallamy – a book that helped Evan feel that he didn’t have to know everything to try something new.

“I didn’t know anything, really,” Evan says, “and I’m still learning all the time. I am trying elderberries, hazelnuts, cherries. But all along, what I’m trying to do is bring back some biodiversity, right into my little city lot.” And last year, he began talking with his neighbors about trying some different ideas in their yards as well. Together they ordered some pecan and pawpaw trees, along with a few other plants, and had some conversations about expanding an edible and diverse landscape throughout the neighborhood.



Evan Miller's snowy backyard with hazelnuts planted a year ago.



The Northern Cardinal is one of the many birds that frequent Goshen yards.

Diverse urban landscapes not only attract beneficial insects and birds, but they also require less water and absorb more stormwater. In addition to possibly providing some good things to eat, these are good reasons to imagine a yard with less grass.

Evan admits that growing a native yard – rather than a grass yard – takes time and energy. “But so does mowing everything,” he says, “not to mention the gasoline and emissions. For me, the real payoff [in planting natives] is the birds and insects that I see coming into my yard. That’s what makes it worth it.” He would like to see other property owners across the city trying wildflowers and prairie grasses and fruiting trees and bushes. “It takes some management and knowledge. But the more of us who try, the more we’ll all know.”

Department of
Environmental Resilience
410 W. Plymouth Ave.

[https://goshenindiana.org/
environmental-resilience](https://goshenindiana.org/environmental-resilience)

Director
Aaron Kingsley 537-3832

Grant Writer/Educator
Theresa Sailor 537-3818

Create Habitat in Your Backyard!

Backyard habitats are not about size, they are about adding food, water, shelter, and nesting elements that birds, insects, and small mammals need to survive in the urban environment. The backyards that provide these important life-supporting components create a patchwork of life-sustaining properties for wildlife to live in or travel through Goshen.

This certification checklist from the National Wildlife Federation's "Garden for Wildlife" program is a great place to start!



National Wildlife Federation's GARDEN FOR WILDLIFE™

Garden Certification Walk-through Checklist

It's easier than you think to create your own wildlife garden! Use this walk-through checklist to confirm you have all the elements necessary to be certified:

***Note:** this checklist is only a tool to prepare your garden, please certify online at www.nwf.org/certifiedwildlifehabitat

FOOD: Your habitat needs three of the following types of plants or supplemental feeders:

<input type="checkbox"/> Seeds from a plant	<input type="checkbox"/> Fruits	<input type="checkbox"/> Bird Feeder	<input type="checkbox"/> Butterfly Feeder
<input type="checkbox"/> Berries	<input type="checkbox"/> Sap	<input type="checkbox"/> Squirrel Feeder	<input type="checkbox"/> Nuts
<input type="checkbox"/> Nectar	<input type="checkbox"/> Pollen	<input type="checkbox"/> Hummingbird Feeder	
<input type="checkbox"/> Foliage/Twigs	<input type="checkbox"/> Suet		

WATER: Your habitat needs one of the following sources to provide clean water for wildlife to drink and bathe:

<input type="checkbox"/> Birdbath	<input type="checkbox"/> Seasonal Pool	<input type="checkbox"/> River	<input type="checkbox"/> Rain Garden
<input type="checkbox"/> Lake	<input type="checkbox"/> Ocean	<input type="checkbox"/> Butterfly Puddling Area	<input type="checkbox"/> Water Garden/Pond
<input type="checkbox"/> Stream	<input type="checkbox"/> Spring		

COVER: Wildlife needs at least two places to find shelter from the weather and predators:

<input type="checkbox"/> Wooded Area	<input type="checkbox"/> Cave	<input type="checkbox"/> Brush or Log Pile	<input type="checkbox"/> Dense Shrubs/Thicket
<input type="checkbox"/> Bramble Patch	<input type="checkbox"/> Roosting Box	<input type="checkbox"/> Burrow	<input type="checkbox"/> Water Garden or Pond
<input type="checkbox"/> Ground Cover	<input type="checkbox"/> Evergreens	<input type="checkbox"/> Meadow or Prairie	
<input type="checkbox"/> Rock Pile or Wall			

PLACES TO RAISE YOUNG: You need at least two places for wildlife to engage in courtship behavior, mate and then bear and raise their young:

<input type="checkbox"/> Mature Trees	<input type="checkbox"/> Wetland	<input type="checkbox"/> Dead Trees or Snags	<input type="checkbox"/> Water Garden/Pond
<input type="checkbox"/> Meadow or Prairie	<input type="checkbox"/> Cave	<input type="checkbox"/> Dense Shrubs/Thicket	<input type="checkbox"/> Host Plants for Caterpillars
<input type="checkbox"/> Nesting Box	<input type="checkbox"/> Burrow		

SUSTAINABLE PRACTICES: You need to employ practices from at least two of the three categories below to help manage your habitat in a sustainable way- *to better help wildlife, we advocate employing one or more practices from each category:*

<input type="checkbox"/> Soil and Water Conservation: <ul style="list-style-type: none">• Riparian Buffer• Capture Rain Water from Roof• Xeriscape (water-wise landscaping)• Drip or Soaker Hose for Irrigation	<input type="checkbox"/> Limit Water Use <ul style="list-style-type: none">• Reduce Erosion• Use Mulch• Rain Garden
<input type="checkbox"/> Controlling Exotic Species: <ul style="list-style-type: none">• Practice Integrated Pest Management• Remove Non-Native Plants and Animals	<input type="checkbox"/> Use Native Plants <ul style="list-style-type: none">• Reduce Lawn Areas
<input type="checkbox"/> Organic Practices: <ul style="list-style-type: none">• Eliminate Chemical Pesticides• Eliminate Chemical Fertilizers	<input type="checkbox"/> Compost