Town & Country

Hamilton County Soil & Water Conservation District

Westfield Landowner Group Leads Effort for New Suburban Southwest Conservancy

The land south east of Eagletown bounded by Ditch Road on the east, 146th on the south, Little Eagle Creek Avenue on the west and SR 32 on the north is largely farmland, large three acre or greater residential sites, equestrian farms, artisan farms, a city park, and a golf course. Much of this area was platted prior to the 2008 bust. In response to recent renewed development pressure two local leaders, Suzy DuBois and Kristen Burkman reached out to the neighborhood going door to door and organized a committee. The neighborhood felt strongly that they needed to ensure that their vision for their community was further defined and expanded upon from the previously approved criteria from the 2007 Comprehensive Plan for their southwest area. Working with community leaders and city officials they have drafted an addendum to the Comprehensive Plan that would ensure the preservation of greenspace, provide the continued artisan farm and rural lifestyle opportunities, promote high quality development and preserve and enhance property values of the New Suburban Southwest area.

The normal process is for city officials to decide that a new or updated comprehensive plan is needed. They hire a consultant who holds public meetings to gauge public interest / opinion and draft a new ordinance. After the ordinance is Introduced a few tweaks are made and it's passed. In this case, two landowners, Suzy and Kristen started the process and continue to drive the bus toward a different plan for their community.

On Wednesday November 4th the organizers sponsored an open house to introduce the residents and landowners to rural and conservation land development. The Soil and Water Conservation District was invited to present material about conservation practices appropriate for sustainable urban development. A crowd of about 200 people participated in The Conservancy Open House.



Fall 2015

Over 200 guests attended the Conservancy Open House held at Wood Wind Pavilion on November 4th.



It takes a tremendous amount of effort to pull together the resources and language for an ordinance change. We salute this committee for taking on the task. It's great to see a citizens group make progress on how their community will evolve. I'm sure that elected officials would like to see more grassroots organizations take responsibility for their communities.

Anyone with questions regarding this effort can contact Kristen Burkman at rkburkman@gmail.com

The Westfield area being discussed.



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Published quarterly and distributed to landowners, farm operators, teachers, local agencies, public officials, conservation organizations and other interested individuals.

1717 Pleasant St. Suite 100 Noblesville, IN 46060 317-773-2181 soil.water@hamiltoncounty.in.gov

Purdue Extension Hamilton County Hires a New Ag. & Natural Resources Educator

Purdue Extension in Hamilton County has added a new member to their staff, Diane Turner was hired in August of this year as the new agriculture and natural resources educator. Diane's previous experience includes 10 years as an Extension Agent for NC State University in western North Carolina before relocating to Indiana. She brings an extensive background helping horticulture clients with an emphasis on insect and disease diagnosis. Stop by the Hamilton County Extension Office to meet her or check out a few of her outreach programs listed below.

Whether you have a green thumb or not, consider taking a look at the new *Successful Gardening* blog created and written by Diane. This educational website is an outreach effort in which she is providing gardening information for the residents of Hamilton County. Be sure to visit <u>http://successfulgardeninghamilton.blogspot.com/</u> to subscribe and each article will be automatically delivered to your email inbox.

Diane has also produced and is currently accepting email addresses for an online newsletter for Hamilton County agriculture community. This publication will be dispersed twice per month and will include Purdue University production information and upcoming events happening in our area. All scheduled Pesticide Applicator trainings will be advertised through this newsletter as well. Be sure to contact Diane by email at <u>turnerda@purdue.edu</u> or by phone at 317-776-0854 to be added to her email list.

2015 Tree Sale a Success

Over 460 trees were purchased in this year's Annual Native Tree Sale. 30 species ranging from chokeberry shrubs, to paw-paws, to red oaks found homes in Hamilton County where they will provide wildlife habitat, shade, and water quality benefits for many years to come. In addition to these great environmental benefits, the tree sale raised over \$4,600 to support SWCD conservation and education programs.

Thank you to everyone who made a purchase. 2016 sale info will be available around fair time in 2016. Don't miss this chance to get quality native tree and shrub stock all while supporting your SWCD!



Indiana Children and Nature Network Looking for Nature Play Day Event Hosts

The Indiana Children and Nature Network (ICAN) is seeking partner organizations to host Nature Play Days between June 11th and 19th, 2016. Nature Play Days can be structured or free play events that encourage kids and families to get outdoors and reap the many physical, mental, and emotional benefits outdoor play provides. Parks, schools, churches, HOA's, scout troops, and individuals are all welcome to host an event. Visit the ICAN website to learn more, view the support materials available, and register your event.

www.IndianaChildrenAndNature.org

Spring Tillage Transect Results Released – Indiana Farmers Plowing Less and Saving Top Soil, and Hamilton County Farmers Are No Exception!

The 2015 Spring Tillage and Cover Crop Transect shows that Hoosier farmers continue the trend of plowing less and using sound conservation practices that preserve and build valuable topsoil, and Hamilton County is no exception.

Each spring the staff at the Hamilton County Soil and Water Conservation District load up their vehicle to conduct a field survey of tillage methods, plant cover, and crop residue in the county. A tillage transect is an on-the-ground survey that identifies the types of tillage systems farmers are using and long-term trends of conservation tillage adoption using GPS technology, plus a statistically reliable model for estimating farm management and related annual trends.

According to Jane Hardisty, State Conservationist for the Natural Resource Conservation Service, "Conservation tillage helps keep the soil where it belongs: on the field. Residue cover of just 30 percent can help reduce soil erosion by 50 percent or more compared to bare soil. This is good for our farmers, good for soil productivity, and good for our drinking water."



There are many forms of conservation tillage, but the ultimate is "no-till," where farmers directly plant into the previous crop with little soil disturbance. No-till farming methods can reduce soil erosion by 75 percent when compared to a conventional (chisel-disk) tillage system, and is a critical component to improve soil organic matter and soil health.

The 2015 Spring Tillage and Cover Crop Transect report shows farmers in Indiana saved over 32 million tons of soil that remained on crop fields by using reduced tillage methods as compared to conventional tillage. Indiana farmers who used reduced tillage systems required fewer passes and they used less fuel which resulted in over 14 million gallons of diesel saved! Within Hamilton County alone 32% of the corn acres (19,500 acres) were planted using no-till, and 82% of the soybean acres (45,800 acres) were planted using no-till, ranking us higher than most surrounding counties!

Additionally, the Indiana Conservation Partnership (ICP) is tracking fields that plant cover crops as a conservation practice. These plants benefit the soil before planting or after harvest by feeding the diverse populations of soil biology, preventing soil erosion, and building soil organic matter. Over 933, 000 acres of cover crops were recorded in the Indiana spring transect, which continues to increase each year. Within Hamilton County 10,877 acres of cover crops were recorded, again ranking us higher than most surround-ing counties!

"These numbers confirm that Indiana is a national leader in acres of cover crops planted," said Ted McKinney, Director of the Indiana State Department of Agriculture (ISDA). "Our farmers were some of the first in the country to discover the economic and water quality benefits of soil health conservation practices such as cover crops. With the record breaking rainfall this past summer, cover crops have proven a valuable tool for managing floodwater, protecting the soil and keeping sediment and nutrients out of our water." Within Hamilton County, our cover crop acres continue to increase each year as more and more farmers are utilizing this effective conservation practice.

In addition to no-till and cover crops, the eight partners who make up the ICP are promoting a *soil health management system* which combines other soil health practices such as adaptive nutrient management, integrated weed and pest management, and diverse crop rotations to improve soil function and make land more sustainable. The Hamilton County Soil and Water Conservation District staff and board are helping to promote these efforts as well.

"With the increase in demand for Indiana's row crop production and the reports on agriculture's role in the Gulf hypoxia and Great Lakes issues, it make sense for us to continue to observe, track and tell the stories of the good things our farmers are doing," said Hardisty.

Last year, the Hamilton County SWCD completed their first ever fall tillage transect and plans to do this year's survey in the coming days. Tillage transect reports dating back to 1990 can be found at http://www.in.gov/isda/2383.htm.

Backyard Conservation Spotlight

Claire Lane, Backyard Conservation Coordinator

DNR Urban Wildlife Habitat Cost Share Assistance Available

Calling all property owners and managers— a new DNR program is providing financial assistance for creation of wildlife habitat, specifically pollinator habitat, on urban lands In Hamilton County. Individual properties, HOA com- Project examples: mon areas, and more are eligible for this funding immediately. These funds can combine with SWCD cost share funds for even more assistance for your project. Whether you've received cost share assistance through the SWCD in the past or are starting a new project, contact the SWCD to learn more about the assistance and financial resources available. These DNR funds are time sensitive so do not wait!

- Warm or cool season native grass establishment
- Grain or legume food plots
- Tree/shrub establishment
- Woodland edge feathering, fencerow rehab, etc.
- Interseeding forbs
- Native pollinator habitat and native shrubs

District Awarded Clean Water Indiana Grant

The Indiana State Department of Agriculture has awarded Hamilton, Hancock, Marion and Madison counties a 2016 Clean Water Indiana grant allowing us to build and expand on the success of the Backyard Conservation Program and Fall Creek Watershed Partnership. This new grant makes financial assistance available for projects that stop erosion, create wildlife habitat, support clean water, and more across the four county area. This grant will allow us to offer stronger professional and financial assistance to implement conservation measures across our county and lead to continued improvements in pollution prevention, water quality, pollinator and wildlife habitat, and more. We are also excited to share that this grant will offer cost share funds for cover crops on gardens.

The program will be known as the Heartland Backyard Conservation Program and cost share assistance will be available starting in the new year. Please check our website or look for additional details soon.



Heartland Backyard Conservation Program

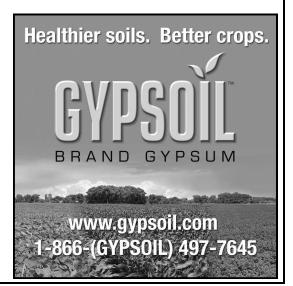
Rain garden a new addition at Belfry Theatre

Through the efforts of the Hamilton County Theatre Guild and Keep Noblesville Beautiful, and with cost share assistance from the SWCD, the Belfry Theatre on Greenfield Avenue, is home to a new rain garden. Volunteers from Keep Noblesville beautiful came together this fall to create the rain garden which will collect rainwater draining from the theatre roof and hold it, allowing it to soak down into the ground and be naturally filtered instead of running off into stormwater pipes. We are excited to watch the



native plants in this rain garden grow for years to come and contribute to clean water and pollinator habitat in Hamilton County.

Contact the SWCD to learn about financial assistance available to create your own rain garden.





Altum's 11335 North Michigan Road Zionsville, IN 46077 www.altums.com	BECK'S HYBRIDS	www.myhamiltoncountyparks.com
Farm Credit Services OF MID-AMERICA Zach Murphy Rick Hahn zach.murphy or rhahn@e-farmcredit.com 4985 N State Road 9 Anderson, IN 46015 Ph: 765-644-7172 or 800-878-0195	Centered on you.Noblesville317-773-0870	Ron Dixon Natural Resource Consultant & Certified Wetlands Specialist Phone (317) 862-7446 Please visit our website at: Natural-resource-consulting.com
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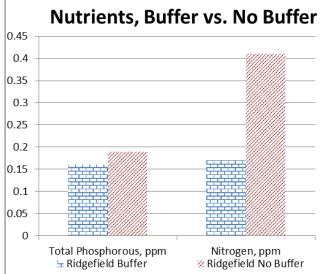
Pond Study Report for the Summer of 2015

Our summer intern, Jake Houchins, completed a water quality study of detention ponds. Little is known about the quality of water in local urban detention ponds. The ponds do collect a variety of pollutants associated with urban watersheds like nutrients, sediment, petroleum products and salt. The study focused on several key items that may predict the health of a pond. Also included in the investigation were conditions surrounding the pond like bank erosion, rodent activity, pipe failure and geese activity. The test results and observations were shared with the owners.

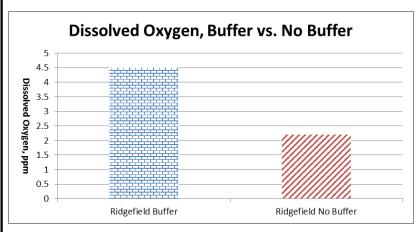
Study Summary:

First, it is difficult to confidently conclude anything from looking at a single test from several ponds. Every pond management company I have spoken with claimed that each pond is so different; it is hard to find consistent results. I found this to be extremely true. There were a few light assumptions that could be made however, as well as many observations. In this report I will talk about different scenarios I found throughout the pond study for the summer of 2015 in Hamilton County.

Two of the early ponds tested were at the Ridgefield subdivision. The two ponds have a major difference. One pond has typical grass banks while the other had a native plant buffer on the banks. While this pond still tested for elevated levels of nutrients, it did have fewer amounts than the non-buffer counterpart. A

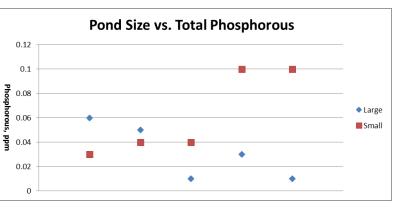


significant difference was found in the nitrogen levels coming from nitrates. Nitrogen mostly comes from animal waste and decaying matter. One of the benefits of a huge plant buffer is that it keeps geese away. One could conclude that due



The adjacent figure shows the comparison of the 5 largest ponds to the 5 smallest ponds included in the study, and how their phosphorous levels match up. During the study, it was very clear that larger ponds typically had better water clarity than smaller ponds. But as the image shows, this doesn't correlate at all to the amount of phosphorous present. This was the same case for nitrogen. In terms of nutrients, there was no consistent evidence to prove larger ponds were better off than smaller ones. to keeping geese away would provide less animal waste to pollute the pond in the form of nitrogen.

Another significant difference while comparing Ridgefield's ponds was the dissolved oxygen present. Buffers are known to prevent soil erosion and catch sediment from entering the pond. Thus the secchi disk reading showed a significant higher level of water clarity in the pond with the buffer. This allows light to penetrate the pond water and allow aquatic plants to give off oxygen more efficiently







The two ponds above are extremely different in size, and also appear very different in terms of water characteristics. However, both ponds have similar levels of phosphorous.

Nitrates/Nitrogen -An interesting result I saw at the very end of the study was how only 7 of the 31 ponds tested had significant amounts of Nitrate/Nitrogen. I was unable to find any similar characteristics to these bodies of water that might give reason to the nitrogen levels. Unfortunately, together the places represent several different sizes and styles that there is no way to draw a conclusion. However, it is still noteworthy that not only did 23% of tested ponds contain nitrate/nitrogen, but that they were at polluted levels of these substances. Some had algae, some didn't.

Drainage Systems -Many of the ponds have trash and vegetation mats on the cages of outlet pipes. The wetness alongside the banks of the pond gives evident that the water level is elevated by the blockage and slowly recedes to normal level. Cleaning the grates on a regular basis would help maintain a consistent water level and prevent soggy banks and erosion



Invasive/Aggressive Plants

There was no correlation between ponds that have invasive plants and ponds that don't in terms of water quality. It seems whether or not there was an abundance of nutrients, the presence of plants like

Creeping Water Primrose

creeping water primrose

can occur. With that being said, these issues were evident in a good majority of the ponds and should be of concern.

Improper Drainage Outlets– Pipes from downspouts and/or sump pumps are commonly discharged into ponds. Where the discharge point is well above the normal pool level, its common to find soggy soil and moderate gullies and erosion as shown in the picture. A better practice is to extending the pipe closer to the water or protect the soil.





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Save the Date— 2016 Annual Meeting and Workshop February 18th, 2016

Mark your calendar for February 18th, 2016. You are invited to the 2016 Hamilton County SWCD Annual Meeting. Workshop sessions are being finalized and details will be available on our website soon. An election for a SWCD board member will be held as well as a review of SWCD activities and a delicious hot lunch served.

Businesses and organizations interested in reserving a vendor table are encouraged to contact the SWCD at soil.water@hamiltoncounty.in.gov or 317-773-2181.



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