



# Conservation in the Neighborhood

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## SWCD Welcomes Urban Soil Health Specialist

Many soil and water conservation districts that cover urban areas are seeing a growing demand for information on urban conservation, urban farming, and as a result, soil health questions. The Marion County SWCD recently hired an urban soil health specialist to address this burgeoning interest, as a part of the Conservation Cropping Systems Initiative (CCSI).

Kevin Allison began working in Indianapolis and its surrounding areas recently, and will provide technical assistance and training related to soil health and soil quality. He is focused on assisting

land users in applying the principles of Soil Health to gardens and small farms for the benefit of soil function



**Kevin Allison, Urban Soil Health Specialist**

and the environment. His background includes work with conservation cropping

systems in large-scale agriculture as well as 3 years of service in the Peace Corps Dominican Republic's Community Environmental Development sector. Kevin holds a BS in Environmental Science from Indiana University. He serves on the Southwest Regional Soil Health Team and the Inter-agency Working Group for alternative and organic agriculture. For more information contact him by calling the Marion County SWCD at 317-786-1776 or email him at [kevin-allison@iaswcd.org](mailto:kevin-allison@iaswcd.org).

## Launching New Soil Health Program

With support from the USDA-Natural Resources Conservation Service and the Indiana Conservation Partnership, the Marion County SWCD aims to assist land users with implementing soil health management systems. With funding through Clean Water Indiana, and in partnership with the Hendricks County SWCD, an urban soil

health program is now *tuning up* to help growers and land stewards with technical and financial assistance for components of soil health systems including soil tests, cover crops and minimum tillage.

Everyone from those who enjoy raising a few flowers or vegetables in their yard to those who are raising organic

produce for market will benefit from the new Urban Soil Health Incentive Program.

Contact our office and watch our website [www.marionswcd.org](http://www.marionswcd.org) for assistance and updates on upcoming workshops and the cost share program.

Support the Marion County SWCD by becoming an Affiliate Member. For information check our website: [marionswcd.org](http://marionswcd.org) or email [marilyn-hughes@iaswcd.org](mailto:marilyn-hughes@iaswcd.org)

For more information on Soil Health visit our website: [www.marionswcd.org](http://www.marionswcd.org)



# Soil Health!

## By Kevin Allison, Urban Soil Health Specialist

A healthy soil is full of life. Take a virgin forest, for example. It's healthy soils are rich in organic matter and capable of growing a food web for an abundance of species. Its soils are never tilled and always covered. Continuous living roots from a diversity of plants create soil habitat that is full of microorganisms and fungi. Massive trees grow from and fall back to the earth, and the

also refer to it as Conservation Cropping Systems to compliment the Conservation Cropping Systems Initiative that is sweeping the state with workshops and guidance, offering farmers and those who assist farmers with opportunities to better care for the soil.

While assessing growers' needs, I met with motivated environmental educators at the Paramount School of Excellence. Not only do the students raise goats and make cheese, but they have

and I hoed up a massive garden multiple times. For the creation of a pulverized seedbed and for customs we've just simply grown up with, we were destroying ever-important soil structure and reducing the soil's vitality to function as a living ecosystem. There is a more sustainable way. And it beats hoeing dirt and trying to water two hundred eggplant plants with barrels, buckets and a slow hose in a tilled soil that *can't* hold water. It is a resilient soil health system

**Developing a healthy, productive soil with a conservation cropping system is a journey, and to achieve it, we focus on the four soil health principles in every action we take on the farm or in the garden.**

- 1) **Keep the soil covered as much as possible.**
- 2) **Disturb the soil as little as possible**
- 3) **Keep plants growing throughout the year to feed the soil**
- 4) **Diversify as much as possible using crop rotation and cover crops**

nutrients are cycled to new plants by the very soil life the system fosters. In mimicking the ecological processes of nature in crop production, we can create food webs in and above our soil that increase productivity and help conserve our natural resources. I've heard this approach be called Ecofarming. I've even heard farmers refer to it as *just a good way of doing business*. But I'll

also been no-tilling their vegetable crops! I think they are going to like what they see with cover crops, and I'm confident they'll make it an experience for their student growers. I know I have enjoyed soil health in my garden and in the Daviess County SWCD cover crop demonstration sweet corn plots. I think about my *Brigade Verde* youth group in the Dominican Republic, and I wish I would have had knowledge of conservation cropping systems then. Those kids

with a soil surface *that acts like a sponge!*

Are you interested in soil health? We want to provide you with assistance and educational opportunities. Keep an eye on the website and upcoming newsletters for the initiation of our incentive programs and workshops! If you're already experienced with cover crops, we are very interested in what you do and challenge you to try something new! See page 7 for more ideas.

# IUPUI Offers Soils Class



The SWCD highly recommends IUPUI's soils class to everyone involved in land use decisions. If you will ever buy a home, plant a garden or build anything on your property you need to know your soil!

**The Soils Class offers field trip experience**

The soil classes offered this fall will meet on Thursday evenings starting Aug. 27th. Three options allow for a one credit soil survey, or 3 credit undergraduate or graduate credit.

To view options and be admitted as a visiting or non-degree student bring documentation of academic degrees to the registrar at IUPUI, contact the Ad-

missions Center at <<http://enroll.iupui.edu/admissions>> or phone (317) 274 4591. For walk-in admissions information and assistance with registration go to Admissions Center, 255 Campus Center, 420 University Blvd. For further course information contact: Dr. Rick Bein - Phone: (317) 274-1100; Department (317) 274 8877; Fax: (317) 278-5220 [[rbein@iupui.edu](mailto:rbein@iupui.edu)] IUPUI, Cavanaugh Hall, Room 213D, 425 University Blvd, Indianapolis, IN 46202.

*For more information on the IUPUI Soils class visit our website at [marionswcd.org](http://marionswcd.org)*

## District Education Corner

The Marion County SWCD staff and board of supervisors have been busy promoting conservation! Below are highlights from some of their work and where to find us this spring.

Marion County SWCD Supervisors Brian Neilson and John Hazlett presented an update on current district happenings to the **Watershed Action Team of the Green Umbrella**, a regional sustainability alliance based in Cincinnati, Ohio. The presentation was part of a regional SWCD update that also included district supervisors and employees from the Kenton County, Kentucky and Hamilton County, Ohio SWCDs. A group of approximately 20 attendees heard about recent Marion County SWCD efforts including the Urban Soil Health Program and collaboration activities with the City of Indianapolis.

Kevin Allison presented "**Healthy Soils, Healthy Environment**" to a group of gardeners at Purdue Extension's Spring Garden Clinic. He discussed soil health and highlighted some of the ways both big farms and local growers are achieving it.

**Soil Testing 101** - class offered by Fall Creek Gardens on March 28th from 10 to 11:30 a.m. Registration is required. Visit their website for more information: <http://www.fallcreekgardens.org/events/2015/03/soil-testing-101/>

**Organic Gardening for Beginners** - Seed saving, crop rotation, succession planting and more will be covered in this session. Offered by Fall Creek Gardens and the Indiana Organic Gardeners Association on April 4th from 1:30 to 3:30 p.m. Registration is required. Visit <http://www.fallcreekgardens.org/events/2015/04/organic-gardening-for-beginners-part-4-save/>

See us at the **Earth Day Indiana Festival - April 25th** from 11 a.m. to 4 p.m. at White River State Park. This is Indiana's largest one-day environmental event and one of the best Earth Day events in the country. Look for our booth!

Get a free Red Bud on Arbor Day at **Indy Free Tree on the Circle**, April 24th at 11 a.m. in front of the IPL building. Help Green Marion County and fight global warming!



# Preparing your Spring Garden Soil



“Picking the right site and evaluating and preparing the soil are possibly the most important decisions you can make as a gardener”

**By Maggie Goeglein, SWCD Supervisor**

After this cold, snowy winter we can finally say: spring is just around the corner! Even better, it is time to start planning the garden you want to grow this year.

Picking the right site and evaluating and preparing the soil are possibly the most important decisions you can make as a gardener; without ample sunlight (6-8 hours/day of direct sun), and well-drained, healthy soil even the most experienced grower will struggle.

## Soil Testing

Whether you are starting a new garden bed or preparing to plant in an established one, it is wise to send a sample for a soil test, giving you a much better understanding of what nutrients your soil contains and what you will need to add. To get a good soil sample, dig 6-8” down in several different spots, and

take a small sample of soil from each. Then combine those different samples and scoop out one blended sample to send to the lab.

Gardeners in Marion County, particularly those gardening within the circle of I-465, should also make sure to test for lead, since we have higher-than-normal levels in Indianapolis due to former industry downtown. Gardening should be a safe, healthy activity for your family, so make sure to test your soil and make certain!

Resources for soil testing: A&L Great Lakes Laboratories in Fort Wayne--

[www.algreatlakes.com](http://www.algreatlakes.com) or University of Massachusetts (tests for heavy metals like lead)--<http://soiltest.umass.edu/services>

## Living Soil

While most of us were taught that starting a new garden bed requires lots of heavy digging or tilling, we now know that this can actually be harmful to your

soil. Instead, try the “no-till” method, which doesn’t break up and kill many of the microorganisms and fungal networks in the soil that enable plant roots to efficiently access nutrients and water from the soil.

No-till gardening is simple to learn, easy on your back--no digging required—and creates a weed-free garden bed! You can start a new bed in the fall or spring by simply placing cardboard or a thick layer of newspaper over the site for the bed, and then adding 3” of mulch (fall) or compost (spring). By using compost in the spring, then you are ready to plant right away! You will also want to use a fertilizer with a higher nitrogen content to balance out the carbon you’ve added in the newspaper/ cardboard. Remember, the key to a productive garden is cultivating healthy soil!

## Support Your SWCD

Soil & Water - Our most precious natural resources



The Marion County District works daily to provide information and resources to improve natural resources in our county. Become an Affiliate Member to be a

partner in conservation. Gifts from affiliate members are used to continue services provided to county residents including consultation in land use, erosion control and drainage problems. Funding is needed to help continue erosion con-

trol inspections, to actively promote wise land use and improvements in water quality through our educational programs, workshops and publications. For more information click the Donate button on our website: [marionswcd.org](http://marionswcd.org)

# Celebrate Spring with Conservation Education



With the onset of spring come many opportunities to celebrate as well as engage the community in the conservation of its natural resources across the varying landscape. As a member of the National Association of Conservation Districts (NACD), the Marion County Soil and Water Conservation District is part of a heritage of the 60-year celebration of NACD Stewardship Week, April 26 – May 3, 2015.

Education is a critical element of the conservation effort at the local, state and national levels,

**Learn how to become a good steward of our land**

working to ensure that the next generation will be wise stewards of our natural resources. While Stewardship Week is promoted nationally throughout communities, we celebrate the responsible use of our natural resources and good conservation practices throughout the year.

Consider the opportunities you have to do outreach in your community this coming Stewardship Week and possibly tying it in with celebrating Earth Day, April 22. Engage the youth in your community through your 4-H organizations, your scout troops, and your local schools and after school programs. For some creative ideas on activities, free educator guides, and

other resources to assist your outreach in the community, visit the Stewardship and Education pages on the NACD website at [www.nacdnet.org](http://www.nacdnet.org) where materials and resources are available by topic such as “Soil to Spoon,” “Forests for people – More Than You Can Imagine,” “Where Does Your Water Shed?” and much more.

For the Earth Day celebration in Indianapolis, be sure to visit Earth Day Indiana on the web at [www.earthdayindiana.org](http://www.earthdayindiana.org). The event will be held in the White River State Park on Saturday, April 25, from 11:00 am – 4:00 pm.



## SWCD Annual Meeting Highlights

A big THANK YOU to all who came for the Marion County SWCD Annual meeting last month! Friends and supporters heard about the accomplishments in conservation we experienced during 2014 and joined us in looking forward to our new endeavors for this year.

We also heard from Tom Reddicks about the wonderful learning experiences of the students at Paramount School of Excellence. Paramount, a Green

School, is located at 3020 Nowland Avenue in Indianapolis. It has an outdoor classroom, garden, beehives, goats and chickens which the children help care for. Education continues year round as students come back to participate as S.T.E.A.M. (Success through Education, Agriculture and Mentoring) participants. PSOE believe in integrated sensory learning whereby students touch, see, taste, hear and smell what they are learning.

We are excited about the future as we see the next generation experience and learn from nature. We also are encouraged by all of the neighborhoods and individuals that are getting involved in promoting conservation at home and at work. Come join us and see what a difference we can make!



**Goats to Compost—just a few opportunities for Paramount students to learn.**



*Erosion control & tree preservation are important steps to improving water quality*

*Join our Stop That Dirt Campaign at marionswcd.org*

## Stormwater Pollution from Construction Sites Improving

By Glenn Lange, SWCD Resource Conservationist

Pollution of Marion County waterways comes from a variety of sources: industrial sites, combined sanitary and stormwater sewers, failing septic systems, agricultural and urban landscapes. These sources produce pathogens (such as E. coli bacteria); excess nutrients (phosphorus and nitrogen); excess sediment (soil); and, farm and landscaping chemicals along with other toxic materials. The City of Indianapolis and Citizens Energy Group (sanitary sewer system operator) have made progress in dealing with some of these pollution issues. One of several advances in curbing pollution can be found in the cooperation between the Marion County Soil and Water Conservation District (MCSWCD) and the City of Indianapolis in curbing excess sediment from

construction sites.

By volume, sediment is the greatest pollutant entering our surface waters. With the county largely devoted to urban uses, construction sites are numerous. In fact, at any point in time throughout the year, there are often more than 100 construction sites of 1 acre or larger in size of land-disturbing activities. As stormwater flows over these bare soil areas, sediment laden water can easily flow into storm sewers and/or directly into our waterways.

The MCSWCD has been working directly with the City of Indianapolis Departments of Public Works and Code Enforcement to provide Storm Water Pollution Prevention Plan review for publically funded projects, on-the-ground inspection services, and assistance in

training city employees, project managers and contract project inspectors. We have been able to increase our training work assistance several fold in the last two years.

And while we work with city officials and contractors in making improvements, residents can play a role in assisting those efforts. We have added to our web site a “Stop That Dirt” campaign to make it easier to report construction site problems of sediment laden water leaving those sites. As you travel the county, please observe the construction sites you see and look for mud tracking on streets and chocolate-colored water running off these areas during rain events. Visit our web site – watch our video – and contact us when you see problems.








## Community Gardening – Working Together

At an excellent workshop by Marion County Purdue Extension, executive director of Fall Creek Gardens and district supervisor Maggie Goeglein and SWCD Urban Soil Health Specialist Kevin Allison were given the opportunity as panel members

to speak with growers, organizers, organizations and others connected through community gardening. Maggie welcomed the diverse crowd and urged them to take advantage of Fall Creek Garden’s Urban Growers Resource Center. Kevin talked about

*the beauty of soil health and its principles. The community building event’s panel also featured the City of Indianapolis Office of Sustainability, Front Porch Alliance Grow-N-Indy, and Keep Indianapolis Beautiful!*

## Soil Health Management Systems Include:

What is it?		What does it do?	How does it help?
<p><b>Conservation Crop Rotation</b></p> <p>Growing a diverse number of crops in a planned sequence in order to increase soil organic matter and biodiversity in the soil.</p>		<ul style="list-style-type: none"> <li>Increases nutrient cycling</li> <li>Manages plant pest (weeds, insects, and diseases)</li> <li>Reduces sheet, rill, and wind erosion</li> <li>Holds soil moisture</li> <li>Adds diversity so soil microbes can thrive</li> </ul>	<ul style="list-style-type: none"> <li>Improves nutrient use efficiency</li> <li>Decreases use of pesticides</li> <li>Improves water quality</li> <li>Conserves water</li> <li>Improves plant production</li> </ul>
<p><b>Cover Crop</b></p> <p>An un-harvested crop grown as part of planned rotation to provide conservation benefits to the soil.</p>		<ul style="list-style-type: none"> <li>Increases soil organic matter</li> <li>Prevents soil erosion</li> <li>Conserves soil moisture</li> <li>Increases nutrient cycling</li> <li>Provides nitrogen for plant use</li> <li>Suppresses weeds</li> <li>Reduces compaction</li> </ul>	<ul style="list-style-type: none"> <li>Improves crop production</li> <li>Improves water quality</li> <li>Conserves water</li> <li>Improves nutrient use efficiency</li> <li>Decreases use of pesticides</li> <li>Improves water efficiency to crops</li> </ul>
<p><b>No Till</b></p> <p>A way of growing crops without disturbing the soil through tillage.</p>		<ul style="list-style-type: none"> <li>Improves water holding capacity of soils</li> <li>Increases organic matter</li> <li>Reduces soil erosion</li> <li>Reduces energy use</li> <li>Decreases compaction</li> </ul>	<ul style="list-style-type: none"> <li>Improves water efficiency</li> <li>Conserves water</li> <li>Improves crop production</li> <li>Improves water quality</li> <li>Saves renewable resources</li> <li>Improves air quality</li> <li>Increases productivity</li> </ul>
<p><b>Mulch Tillage</b></p> <p>Using tillage methods where the soil surface is disturbed but maintains a high level of crop residue on the surface.</p>		<ul style="list-style-type: none"> <li>Reduces soil erosion from wind and rain</li> <li>Increases soil moisture for plants</li> <li>Reduces energy use</li> <li>Increases soil organic matter</li> </ul>	<ul style="list-style-type: none"> <li>Improves water quality</li> <li>Conserves water</li> <li>Saves renewable resources</li> <li>Improves air quality</li> <li>Improves crop production</li> </ul>
<p><b>Mulching</b></p> <p>Applying plant residues or other suitable materials to the soil surface to compensate for loss of residue due to excessive tillage.</p>		<ul style="list-style-type: none"> <li>Reduces erosion from wind and rain</li> <li>Moderates soil temperatures</li> <li>Increases soil organic matter</li> <li>Controls weeds</li> <li>Conserves soil moisture</li> <li>Reduces dust</li> </ul>	<ul style="list-style-type: none"> <li>Improves water quality</li> <li>Improves plant productivity</li> <li>Increases crop production</li> <li>Reduces pesticide usage</li> <li>Conserves water</li> <li>Improves air quality</li> </ul>
<p><b>Nutrient Management</b></p> <p>Managing soil nutrients to meet crop needs while minimizing the impact on the environment and the soil.</p>		<ul style="list-style-type: none"> <li>Increases plant nutrient uptake</li> <li>Improves the physical, chemical, and biological properties of the soil</li> <li>Budgets, supplies, and conserves nutrients for plant production</li> <li>Reduces odors and nitrogen emissions</li> </ul>	<ul style="list-style-type: none"> <li>Improves water quality</li> <li>Improves plant production</li> <li>Improves air quality</li> </ul>
<p><b>Pest Management</b></p> <p>Managing pests by following an ecological approach that promotes the growth of healthy plants with strong defenses, while increasing stress on pests and enhancing the habitat for beneficial organisms.</p>		<ul style="list-style-type: none"> <li>Reduces pesticide risks to water quality</li> <li>Reduces threat of chemicals entering the air</li> <li>Decreases pesticide risk to pollinators and other beneficial organisms</li> <li>Increases soil organic matter</li> </ul>	<ul style="list-style-type: none"> <li>Improves water quality</li> <li>Improves air quality</li> <li>Increases plant pollination</li> <li>Increases plant productivity</li> </ul>



**MARION COUNTY**  
**SOIL AND WATER**  
**CONSERVATION DISTRICT**

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**Find us on the web:**  
**[www.marionswcd.org](http://www.marionswcd.org)**

The Mission of the Marion County Soil & Water Conservation District is to assist Marion County land users in conserving soil, water, and related natural resources by providing technical, financial and educational services.

**THANK YOU Supporting Affiliate Members!**

**Copper Members**

**Mark Kautz      Beth Mason      Stephanie Schuck**  
**Ruth & Paul Hayes, in honor of Eli Bloom & George Haerle**

**Nickel Members**

**Rick Bein      George Haerle, in honor of Marilyn & Eli Bloom**

**Silver Member**

**Marion County Farm Bureau**

# Commit to Conserve



Have you ever wondered how much water you use on a daily basis? Or, if your neighbor is as concerned about water conservation as you are? As part of Citizens Energy Group's partnership with the White River Alliance, now you can find out.

In 2014, Citizens began a partnership with the White River Alliance's Clear Choices Clean Water program. The program aims to raise public awareness about the choices we make and the impact those choices have on our community's water supply. As part of the program, the public is challenged to make online pledges on the Clear Choices Clean Water website. The pledges include commitments to do things to help protect our water such as using phosphorous-free fertilizer, installing native plants or disposing of pet waste.

Now, a new online pledge to conserve water is available. The water conservation pledge page shows ways to conserve water inside your house and outside. Pledge participants can see how their individual behaviors impact the water demand in our area. And, for a little friendly competition, those taking the pledge can see if their neighbors are also pledging to conserve water, and if not, encourage them to do so through the site's email and social media sharing options.

"With the help of Citizens Energy Group, we are making water conservation fun and meaningful for every family," said Jill Hoffmann, Executive Director of the White River Alliance. "Not only will our online pledges teach people how to conserve, they'll also learn why conservation is so important. According to a recent report from the Indiana Chamber of Commerce, unless we begin managing our water resources more efficiently, Indiana could be faced with a water shortage in the future. A change in our attitudes regarding water use needs to be part of the long-term solutions and cultivating that change takes time, creativity, and intentional public engagement."

As part of the partnership with the White River Alliance, Citizens donated \$25,000 to help facilitate online pledges and awareness. To take the water conservation pledge or any of the other pledges that promise to keep our waterways clean, visit [ClearChoicesCleanWater.org](http://ClearChoicesCleanWater.org).

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