

# Frankly Speaking

Creating Conservation Solutions for Over 60 Years

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[www.franklinswcd.org](http://www.franklinswcd.org)



*GPS receivers used by Franklin Soil and Water staff use satellites from both the US and Russia, giving them a margin of error in inches.*

*Thank you to our Annual Meeting sponsors: EarthMinded and McMahon DeGulis LLP*

## Satellites and Water Quality

Of all the program areas at Franklin Soil and Water Conservation District, the Natural Resources Mapping, or Geomatics, program is the least well known, except among the county, township, municipal and private-sector partners who use these resources.

Two technologies make our geomatics program possible: geographic information system (GIS) that allows for the incorporation of data into digitized mapping, and global positioning systems (GPS). Most people are familiar with vehicle GPS receivers that can map the route to a new destination. GPS receivers use satellites orbiting the earth at over 12,000 miles to pinpoint their

location with accuracy that varies from within several feet for an entry-level unit to within inches for the GPS receivers used by our staff. (Our GPS receivers make use of both US and Russian satellites for the most accurate positioning available.)

The Natural Resources Mapping program began in 1998, when county petition-ditch information was digitized to a computer-based mapping program, ESRI's ArcGIS. Since then, data for all Franklin County surface drainage has been added, including road right-of-way drainage, culverts, bridges and stormwater connectors. Stormwater flow directionality was determined

SEE **SATELLITES**, PAGE 3

## Annual Meeting Highlights Ecosystem Services: from the Farm, to the City

You are cordially invited to Franklin Soil and Water Conservation District's 67<sup>th</sup> Annual Meeting on October 17, 2013. The annual meeting provides a recap of the year's activities, time to talk to members of the Board of Supervisors and staff and the opportunity to enjoy a nice meal with fellow conservation-minded landowners, natural resource professionals, educators and local government staff and elected officials.

The annual meeting provides a convenient way to vote for the one board seat that is up for election this year. (See page 4 for election information.) It also is a fund-raiser for the Conservation Fund, through

guests' purchases of raffle tickets and silent auction items. You can read about the recipients of the 2013 Conservation Fund mini-grants on our Web site.

A favorite part of the annual meeting is the presentation of the annual *Conservation Stewardship Awards*. Environmental education specialist, Linda Pettit, presents an *Educator of the Year* award to a formal or nonformal educator whose willingness to go the extra mile helps students appreciate nature and understand our environmental interaction.

The conservation implementation and developing lands teams

SEE **ANNUAL MEETING**, PAGE 2



Using a roller to terminate annual cover crop—no herbicide required

## NRCS News

For those of us who grow plants, soil is our breadbasket. Soil is a living medium much as dough is for bread. In order to keep our soil functioning at its highest potential, consider imitating nature's way of plant production:

- Limit soil disturbance
- Cover the soil
- Keep live roots growing in the soil
- Increase diversity of plants, rotations and (where possible) animals

These are the keys to farming or grazing systems that build soil health. To build soil health, start by looking for what's missing. As you look for what's missing on your farm or pasture, you often find it's a combination of things. Common findings are low levels of organic matter, poor nutrient cycling and poor water infiltration. Soil compaction, poor soil structure, and little 'armor' or protection of the soil at the surface are other issues.

The principles of building healthy soils are the same everywhere—you have to stop tilling the soil and switch from a monoculture crop to a

diversity of crops and rotations. And the path to soil health is different on each farm.

Mary Ann Core, NRCS district conservationist for Franklin County has said that her job as a conservation planner "is to read the signs of soil health (or lack of) and help people design a crop or livestock system that will give what is missing in their current operation. Customers choose cover crop and other conservation practices to fit their resource concerns and priorities."

For water quality management, producers have a few new tools available. These were highlighted at the recent field day at OSU's Waterman Farm, sponsored by NRCS and Franklin Soil and Water. These new conservation practices are effective at removing agricultural nutrients that are dissolved in surface and subsurface water. Subsurface drainage systems can be retrofitted with a bio-filter at the outlet to reduce the nitrates flowing into the receiving stream. By installing a water control structure into a subsurface drainage system, a land manager has the ability to shut off the outflow of the system into the stream. This is done after harvest and saturates the field for the winter. De-nitrification occurs as a result of the interaction of the soil with the ponded water.

These drainage water management conservation practices will be considered for incentive payments this fall during the NRCS Environmental Quality Incentive Program's (EQIP) ranking period for 2014. Contact Mary Ann Core to inquire about using EQIP to help out with resource concerns on the land that you manage. EQIP has incentives for conservation on specialty crops, woodland, pasture and hayland in addition to traditional grain crops.

## ANNUAL MEETING

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present *Conservation Stewardship Awards* to landowners, businesses or organizations that over the past year have exemplified our mission of promoting responsible land-use decisions for the conservation, protection and improvement of soil and water resources.

To top it all off, our speakers will present a holistic view of surface water quality and discuss *Ecosystem Services: from the Farm, to the City*. Guest speaker Chuck Gamble is the manager of the Ohio State University's Farm Science Review (FSR). Held yearly at the Molly Caren Agricultural Center, the FSR "attracts upwards of 140,000 visitors from all over the United States and Canada, who come for three days to peruse 4,000 product lines from 600 commercial exhibitors, and learn the latest in agricultural production. The educational programs feature Ohio State and Purdue specialists and are second to none in the agricultural exhibition world." (<http://fsr.osu.edu/other/about-fsr>)

Presenting with Chuck will be Franklin Soil and Water urban conservationist David Reutter. David assists local governments and businesses to not only meet National Pollutant Discharge Elimination regulations but also to think creatively in order to minimize costs and maximize the preservation of ecosystem services during development. David promotes setback and tree preservation ordinances, the use of conservation easements, and other low-impact design practices to naturally manage stormwater runoff.

The annual meeting registration form is on page 5. Online registration using PayPal is available on our Web site at [www.franklinswd.org](http://www.franklinswd.org)

## SATELLITES

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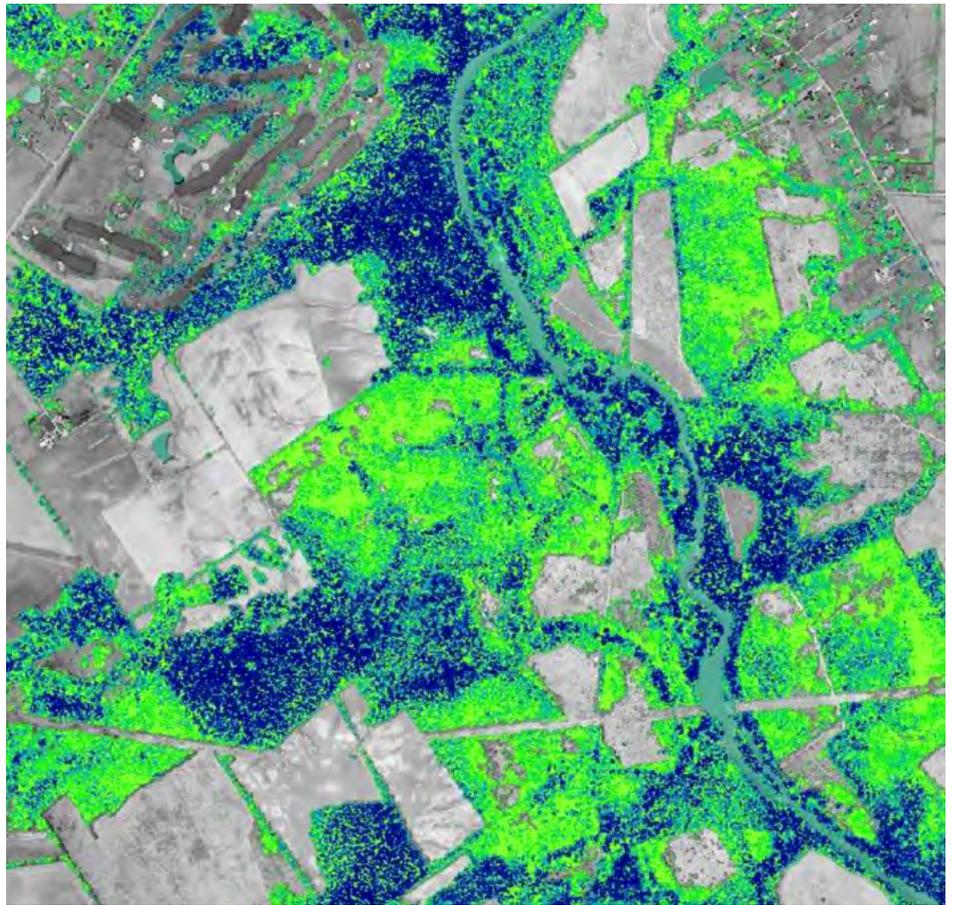
by using contours and elevations. This base information was added to already-mapped surface water data for a complete stream-resource geodatabase.

The next step was field verification of information from the now-computerized maps. Staff members walked the streams of Franklin County with GPS receivers and cameras, recording stormwater discharge locations, stream channels, bridges and culverts and surface drainage points. They also recorded miscellaneous information including illegal dump sites, ponds and obvious illicit discharges, such as human waste from non-functioning septic systems. Field verification has led to over 40,000 features in our geodatabase.

The value of GIS is in the utilization of all these data. How is this information used to promote conservation in Franklin County? Every program area at Franklin Soil and Water is now dependent on our geomatics team, from simple daily tasks to multi-agency projects.

When a homeowner calls with a drainage problem, the property is pulled up on a computer with topographic contours (the highs and lows of the landscape), location of stormwater drains and soil type. Before the staff member even gets to the site, she or he is well-equipped to offer suggestions to alleviate the problem.

The largest project making use of the geodatabase is the dry-weather screening that Franklin Soil and Water does in partnership with several local governments. Local governments with municipal separate storm sewer systems are issued permits by Ohio EPA that outline



Heights of tree canopies are indicated by color. The heights are found by using light detection and ranging (LIDAR) technology, which is similar to radar.

how each local government plans to prevent stormwater pollution. An important part of the permit is illicit discharge detection and elimination (IDDE). An illicit discharge is when anything other than rainwater enters the storm drain system. (There are a few exceptions, such as water from firefighting.) IDDE is important to local water quality because storm sewer systems carry rainwater runoff directly to local streams without cleaning or filtering.

Dry-weather screening entails staff inspecting outfalls, where storm sewer pipes empty to local waterways. If there has been no rain for a few days, and water is flowing from the pipes, where is it coming from? If it is clean, it may be from

groundwater infiltration or a small stream that was enclosed in a pipe during development. Unfortunately, it is often from a nonfunctioning septic system and is contributing nutrients and E. coli to local surface water. Other instances of illicit discharge have been washing machines incorrectly draining into basement sumps; garage or other small business floor drains connected to storm sewer lines; and homeowners dumping paint or automotive fluids down street storm drains.

An example of a large multi-agency project is Franklin Soil and Water's partnership with Franklin County Public Health and the Franklin County Sanitary Engineer. Through

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## Candidates for Board of Supervisors



**CHRIS WIBLE** is Technical Services Director at Scotts LawnService. He is responsible for agronomic programs, service delivery, supply chain, fleet, and regulatory compliance for the company's lawn, tree, and pest control services. Prior to joining LawnService, Chris led Scotts Environmental Stewardship Program where he collaborated with federal, state, and local water quality organizations to address urban stormwater and nutrient management issues.

He is a member of the Ohio Lake Erie Phosphorus Task Force II. Chris is a Board member of OPARR (Ohio Professional Applicators for Responsible Regulation), an alliance of associations, businesses, and individuals dedicated to working in cooperation government officials, and with other environmentally-concerned organizations to insure safe and effective use of pest control, agricultural, and lawn and tree care chemicals. He has served as a board member at the Scott Associates Credit Union since 2009 and currently serves as Board President.

Chris is a graduate of The Ohio State University, where he received his B.S., and a M.B.A graduate from Ashland University.



**DAVID DONOFRIO** is currently completing his first term on the Board, having served as Supervisor, Vice Chair and currently, Chair. His accomplishments during his first three years of service include founding a Government Outreach Committee, which has played a role in informing state legislators, and maintaining valuable state funding despite Ohio's current fiscal challenges. A former Ohio House staffer and candidate for state representative, David will ensure that these relationships are maintained, and fight for continued funding in future budgets.

David has worked tirelessly to ensure public transparency, and a more active role for the Board. He believes that because Franklin Soil and Water is a public entity, the community should be aware of as well as make use of the services the District provides. In a second term, through the implementation of the new 2013 Strategic Plan, he is confident that further public knowledge and accountability in terms of branding, and wise use of public dollars, will continue to be a hallmark that instills public and community partners' confidence. He also believes strongly in being a listener to all sides, and pushed for this year's annual meeting topic highlighting both rural and urban ecosystem services.

David is a 27-year-old lifelong resident of Franklin County, raised beside the stunning Hayden Falls on the northwest side. Outside of Franklin Soil and Water, he is an engaged public advocate on a variety of issues, and is employed by The Strategy Network, LLC. He resides in Dublin with his cat, Ohio.

## Board of Supervisors' Election October 17

The Ohio Soil and Water Conservation Commission will cause an election of one supervisor of Franklin Soil and Water Conservation District to be held in accordance with Chapter 1515 of the Ohio Revised Code.

Residents or landowners, firms and corporations that own land or occupy land in Franklin County and are 18 years of age and older may vote for supervisor. A non-resident landowner, firm or corporation must provide an affidavit of eligibility, which includes designation of a voting representative, prior to casting a ballot.

There are three ways an eligible voter can cast a ballot: (1) at the annual meeting, which will take place October 17, 2013, from 5:00 to 7:00 p.m.; (2) at the Franklin Soil and Water Conservation District office from 8:30 a.m. until 3:00 p.m. on October 17, 2013; or (3) vote absentee by requesting the proper absentee request forms from the Franklin Soil and Water Conservation District office, 1328 Dublin Road, Suite 101, Columbus, Ohio 43215.

For more information, call the office at (614) 486-9613 or visit the Web site at [www.franklinswcd.org](http://www.franklinswcd.org).

# 2013 Annual Meeting: **Ecosystem Services**



October 17, 2013 from 5:00 p.m. to 8:30 p.m.

The Annunciation Greek Orthodox Cathedral Fellowship Hall, 555 North High Street, Columbus, OH

The evening will begin with registration and networking at 5:00 p.m. followed by dinner at 6:00 p.m. The speakers begin at 7:00 p.m., with our very own Dave Reutter, urban conservationist, and Chuck Gamble, manager of Farm Science Review, who will reflect on the importance of the ecosystem services provided by functioning streams and wetlands.

All proceeds from the silent auction go to Franklin Soil and Water’s Conservation Fund, which supports student, landowner and community conservation projects throughout the county.

You can also participate in your soil and water conservation district by casting a vote for one member of the five-person, publicly elected Board of Supervisors. Election rules and applications for absentee ballots can be found at [www.franklinswcd.org](http://www.franklinswcd.org).

Please fill out this portion of the registration, and mail with a check to Franklin Soil and Water Conservation District, 1328 Dublin Road, Suite 101, Columbus, OH 43215, or visit [www.franklinswcd.org](http://www.franklinswcd.org) and pay online through PayPal.

Name \_\_\_\_\_ E-mail \_\_\_\_\_

Organization \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zip code \_\_\_\_\_

Guests’ Names \_\_\_\_\_

Please indicate your choice:

\_\_\_\_\_ Individual - \$42.00

\_\_\_\_\_ Table of 8 - \$294.00 (one person is free!)

Total payment enclosed \_\_\_\_\_

Please register by Monday, October 14<sup>th</sup>. Tickets will be mailed, if time allows; otherwise, they can be picked up at the meeting. Please present your tickets at the door.



## Managing Your Pond for Wildlife and Water Quality



As the weather begins to cool down, your pond may not be in the forefront of your thoughts, but planning for wildlife enhancement and water quality can begin now. Your goal should be to achieve a balanced pond ecosystem with healthy plants and animals, and to create an aesthetically pleasing environment for you and your family to enjoy. The quiet days of autumn are a good time to assess your pond. Did you have algae problems this year? Do you want to see more birds? Do you want better fishing? Whatever your end-use may be, good water quality is essential.

The combination of sunlight, warm water and high phosphorus levels promote plant growth. An excess will stimulate algae that is not only unattractive, but at extreme levels, may result in fish kills. Not all plant growth is unwanted or undesirable. Shore plants provide nesting sites and food for water birds in addition to filtering pollutants and nutrients. Aquatic and emergent plants are needed by fish for spawning and cover, and by invertebrates and amphibians as well.

To create a balanced ecosystem, it is essential to eliminate nutrient loading to your pond. If algae was a problem during the year, decide to implement simple practices to minimize sources of nutrients. A buffer of grasses, emergent plants and shrubs will serve to filter and absorb excess nutrients that might cause problems in your pond. A four- to ten-foot-wide border of unmowed grass will suffice and will discourage geese from taking up residence. In our area, Canada

geese are a major source of excess nutrients in ponds of all sizes.

Think of establishing a chemical-free zone around your pond where no pesticides or fertilizers will be used. Install an aerator if you don't already have one; bottom bubblers are best. Think about planting a few floating plants in the spring. Floating plants, such as water lilies, shade the surface to reduce light and cool the water while also absorbing excess nutrients as they grow. Plants in and around your pond will improve the water quality, enhance its wildlife value, and add an attractive element to the scene. A diversity of native plants at differing depths will increase the diversity of wildlife.

Along the shore, tall reeds and rushes add a natural look. Even cattails can be attractive as long as they are managed to prevent them from taking over all shallow areas. Rocks and logs can be placed to provide resting and sunning spots for turtles and water birds.

When selecting plants for wildlife, consider their food, cover, and fish spawning value. Some plants, like blue flag iris and marsh marigold may offer limited food and cover for animals, but will provide beautiful ornamental interest planted along the shoreline. With some fall and winter hours spent planning your pond maintenance strategy you'll be sure to achieve your goals for a beautiful and healthy pond next summer.

To read more on this topic:

Ohio Pond Management Handbook  
<http://www.dnr.state.oh.us/Portals/9/pdf/pondmgt.pdf>

Series of pond management fact sheets from OSU Extension  
<http://ohioline.osu.edu/a-fact/>

# Neonicotinoid Pesticides Implicated in Colony Collapse Disorder

In the past several years, there's been a growing urgency to understand and prevent colony collapse disorder. This phenomenon occurs when most worker bees abruptly disappear from a hive, leaving behind a queen, food and nurse bees to care for the immature hive.

First observed in the in the mid 2000s, the need to understand and prevent it is essential to one-third of North America's food production, including almonds, avocados, cranberries and apples.

New research suggests that neonicotinoid pesticides, widely used to protect crops against sap-sucking insects, cause a host of devastating behavioral difficulties in honeybees (and other pollinators) that affect memory and navigation. These pesticides are systemic, meaning that they're taken up through roots and distributed throughout the plant, including pollen and nectar. While difficult to quantify the exact effects on colony dynamics, it's thought these widely-used and persistent pesticides weaken the bee's immune system, making it more vulnerable to parasites and pathogens—likely components of colony collapse disorder.

Around since the 1990s, neonicotinoids are used as seed treatment on more than 140 crops, and recently over half of retail garden centers' 'bee-friendly' plants tested positive for the pesticide as well. It is particularly worrisome that well-meaning homeowners may be unwittingly poisoning the very animals they'd hoped to attract. The author of a New Yorker article 'Silent Hives' ironically notes that Rachel Carson's *Silent Spring* is about to turn fifty.

Hopefully, we've learned enough to be proactive: this summer, the



“Save America’s Pollinators Act” was introduced in Congress to temporarily restrict the use of some pesticides implicated in bee deaths. It would direct the US EPA to suspend use of neonicotinoid treatment on soil, seeds and foliage of plants that attract bees, and would require a new determination about their proper application and safe use.

Homeowners can avoid products that contain neonicotinoids by reading labels, but this takes some dedication and research. Integrated pest management, or soap- and oil-based deterrents can be very effective and less toxic. If using pesticides, do so discriminatingly (for example, some cosmetic damage is acceptable), and avoid applications when bees are most active during mid-day hours.

According to Friends of the Earth, among the neonicotinoids are these specific active ingredients:

- acetamiprid
- clothianidin
- dinotefurin
- imidacloprid
- thiacloprid
- thiamethoxam

To read more on this topic:

[http://libcloud.s3.amazonaws.com/93/3c/e/3115/Gardeners\\_beware\\_report.pdf](http://libcloud.s3.amazonaws.com/93/3c/e/3115/Gardeners_beware_report.pdf)

[http://sensinglab.engr.uga.edu/twiki/pub/SensingLab/AcademicDevelopment/348.full\\_honey\\_been\\_pesticide\\_good.pdf](http://sensinglab.engr.uga.edu/twiki/pub/SensingLab/AcademicDevelopment/348.full_honey_been_pesticide_good.pdf)

<http://www.govtrack.us/congress/>



## Franklin Soil and Water Conservation District

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September 2013

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Frankly Speaking

### Board of Supervisors

David Donofrio, Chair

Katie Renner, Vice Chair

Andrea Salimbene, Treasurer

Jessica D'Ambrosio

Thomas Shockley

### PROJECTS

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dry-weather screening, a map of non-functioning septic system 'hot-spots' has been developed. Knowing the locations of these areas of concentration has helped Public Health with inspection and enforcement, and assisted the Franklin County Sanitary Engineer with sanitary sewer planning to eliminate these areas of water pollution and public health concerns.

Recent additions to the natural resources geodatabase have been wetland potential and tree canopy 'layers' that add this information to a map of a land area within the county. The wetland potential is important information when a land-use change is contemplated. The Army Corps of Engineers' wetland

maps do not include areas that were once wetlands but have been drained for development or farming. When the current parcel owner is planning for stormwater management and green space, the wetland potential maps can assist in re-establishing these areas to provide the needed ecosystem services of flood control or water quality improvement.

Connect with **your** soil and water conservation district:

- On Facebook: FranklinSoilandWater
- On Twitter: @franklinswcd
- Through print newsletters
- Through e-newsletters
- Through Web site: franklinswcd.org