

CROSSSECTION



CROSSSECTION

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Special Points of Interest:

- Summer pond care issues.
- Dealing with mosquitoes.
- Access to forestry experts for landowners
- 2006 Board of Supervisors candidates

DOG DAYS IN THE POND

The following is the first installment in a two- part series that describes the activities and functions of ponds in northeast Ohio. Look in our next CrossSection for an article on Freeze and Thaw.

Ponds and lakes in Ohio are used for irrigation, stormwater management, drinking water, and recreation. For those who are lucky enough to have a pond of their own, a basic understanding of the functions and requirements of these unique habitats can help to enhance our enjoyment and stewardship efforts. This article makes recommendations for general maintenance of ponds; however as a pond steward you may decide that your pond will be managed for fish or perhaps for waterfowl. Regardless, management efforts can largely be focused on habitat quality, water quality, and control of nuisance plants/pests.

Wildlife During the lazy days of summer a pond is anything but quiet. The warm sunny days spur rapid growth in the plants and animals that inhabit ponds. The most visible pond dwellers are fish, turtles, and frogs, but also present are snails, clams, crayfish, and many aquatic insects. Algae is also present in almost all pond systems, as are larger aquatic plants. While not living in the water exclusively, dragonflies, ducks and other birds, snakes, and salamanders all rely on ponds for food, shelter and/or breeding. Ponds support a diverse ecosystem, depending upon their size, chemical properties, and physical surroundings.

Oxygen Availability One of the most important processes in a pond is the creation and loss of dissolved oxygen. During the summer months the pond water becomes stratified, with warmer water near the surface and cooler water at the bottom. This warm, sunlight water allows many organisms to grow rapidly and emerge as adults before the onset of cool weather. Aquatic plants also become very active, with photosynthesis releasing dissolved oxygen to the water. Dissolved oxygen is essential for the gilled inhabitants of the pond. However, warmer water is not capable of holding as much dissolved oxygen as cooler water. So it is during the summer months that there is the highest need for dissolved oxygen by growing organisms, but also the least amount available. As fall comes and the temperatures drops, leaves enter the aquatic ecosystem. The decomposition of vegetation and other organisms consumes even more oxygen in the pond. In ponds where the amount of dissolved oxygen is critically low, you can often see fish at the surface of the pond “gulping” for air.

Habitat Improvement There are many practices that can benefit both the water quality and habitat quality of the pond. If you do see signs of low dissolved oxygen in your pond, an aerator placed in the bottom of the pond would be a great benefit. Shelter structures in the pond allow young fish, called fry, to hide from large fish. A common method of creating shelter is to anchor evergreen trees to cinderblocks and



Annual Meeting

Information

Inside!

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MOSQUITOES AROUND THE HOUSE

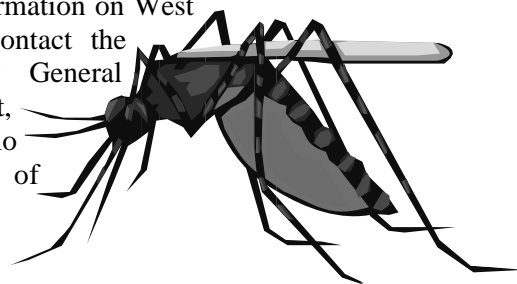
With West Nile Virus again making an appearance in Lake County, mosquitoes are a health threat rather than just a nuisance. Often, people point their fingers at nearby wetlands and natural areas as the source for the swarms in their backyards, but in many situations, the source is even closer to home. A healthy wetland might have some mosquitoes, but it also has many mosquito predators, such as dragonflies, water scorpions, crayfish, ducks and turtles. On the other hand, if you look around your yard, you probably have at least one small collection of water that is capable of supporting a mosquito population. One tablespoon of water lasting four days or more is enough to support mosquito larvae.

If your yard is inundated by these annoying insects, look around for standing water. Check gutters and downspouts for accumulated water and plant debris. These hidden puddles are great mosquito habitat. Other areas around the house include leaking hoses, dripping air conditioners, tire ruts, tarps, and pool covers. In the garden, check for filled trays under containers, stagnant bird baths, predator-free

water features, buckets, cans, wheelbarrows, or tree stumps that hold water. Over watering your lawn can also create great mosquito habitat. Basically, any predator-free puddle of water that exists for more than four days is a mosquito hatchery.

According to the Ohio Department of Health, West Nile Virus is carried by female mosquitoes, and can affect humans, horses, and birds. The disease cannot pass directly from one animal to another, but must be carried by a mosquito. Most people never know they are infected, but West Nile Virus can cause encephalitis or meningitis in some people, within 5-15 days of exposure.

For more information on West Nile Virus, contact the Lake County General Health District, or the Ohio Department of Health

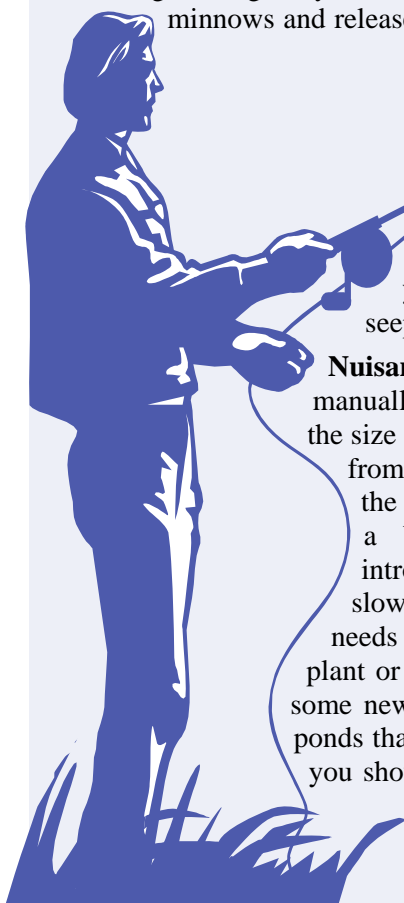


POND *(Continued from page 1)*

submerge them in the water. Cover, such as a rock “reef,” also provides ambush locations for larger fish. If sportfishing is a management goal, you may choose to purchase commercial fish food and broadcast into the pond or purchase bulk minnows and release them into the pond. Emergent vegetation is also used as cover for fish. This vegetation

is often eaten by waterfowl and turtles and is used by dragonfly nymphs to exit the pond to become adult dragonflies. Pond vegetation also releases dissolved oxygen into the pond for use by other organisms. Large trees and shrubs along the water’s edge provide cover and a source of food for the “vegetarians” in the pond. In addition, they shade the pond, keeping the water cooler. The more vegetative cover along the edge of the pond the better. (Trees should not be allowed to grow on a dam if your pond has one. When the tree dies and the roots decompose they can become a seepage channel or worse yet the tree blows over, destabilizing the dam.)

Nuisance Aquatic Vegetation The control of algae and nuisance aquatic vegetation can be done manually or with certain chemicals. Manual control is the most cost effective, but depending on the size of your pond it may not be feasible. Small infestations can be removed with a garden rake from the sides or a small boat. Some plants, such as narrow-leaf cattail, require you to remove the rhizomes which spread laterally from the plant. Large infestations may require the use of a backhoe. White amurs, a triploid carp that will not reproduce, are often introduced into ponds to control vegetation. Keep in mind that as amurs age their metabolism slows and they eat less food; you can also overstock these fish. If you decide that your pond needs a form of chemical control, the correct herbicide should be chosen to treat for the specific plant or algae that is creating the problem. Copper sulfate has long been the standard, however some new studies suggest that the copper could cause problems with the growth of fish eggs in ponds that have been treated for long periods of time. Additionally, when using aquatic herbicides you should only treat small portions of your pond at a time. A one-time treatment of the entire pond will cause large scale decomposition and consume precious oxygen. Treat no more than half of your pond and then wait 3 to 4 weeks to treat the remainder. Often a



POND *(Continued on page 5)*



A Gala Event!



Lake SWCD

1946—2006

**Please join us in celebrating our
60th anniversary serving Lake County!**

**Thursday, October 19, 2006
Croatian Lodge Party Center
34900 Lake Shore Blvd.
Eastlake, OH 44095**

6:00—7:30 PM—ELECTION OF BOARD SUPERVISORS

6:00—7:00 PM—SOCIAL HOUR /CASH BAR

7:00—8:00 PM—FAMILY STYLE DINNER

8:00—8:45 PM— BUSINESS MEETING, AWARDS & RECOGNITION

8:45 PM —DOOR PRIZE GIVEAWAY!

ENTERTAINMENT WILL BE PROVIDED BY ALEX BEVAN

DOOR PRIZES PROVIDED BY

LAKE COUNTY BUSINESSES AND CITIZENS

**I will be attending! Enclosed is my payment of \$20 per person .
Reservations are prepay only & tickets will be held at the door.**

RSVP by October 10, 2006

.....
TOTAL NUMBER ATTENDING _____

NAME_____

NAME(S) OF GUESTS_____

ADDRESS_____

CITY_____ PHONE #_____

_____SPECIAL REQUEST FOR VEGETARIAN MEAL

MEET THE CANDIDATES LAKE SWCD BOARD OF SUPERVISORS, 2006



Bruce R. Landeg, P.E., P.S., Mentor

Education: B.S. Engineering, University of Connecticut, Cum Laude, 1981

Professional Affiliations: Professional Engineer and Surveyor licenses: Certified

Building Plans Examiner in Ohio; Chief Warrant Officer in the OH-ARNG with 28 years of service.

Background: Currently the Chief Deputy Engineer for Lake County, responsible for contract administration, consultant selection, project design management, funding initiatives, budget oversight and daily operations. Served in the United States Navy Submarine Force. Founded a civil/structural engineering and surveying company. Senior engineer in a structural/lifting and handling group for the construction of nuclear submarines on the East Coast. Civil engineering consultant involved in the design of storm water, sanitary systems and subdivisions. In 2005 received the Lake County Environmental Improvement Award for using new technology to minimize soil disturbance on a cold water habitat stream in Leroy Township.

Other: Bruce was born and raised in Mentor and became interested in conservation issues as a young Eagle Scout at Camp Stigwandish. Bruce and his wife Berit returned to Lake County 18 years ago. They have raised three children and just celebrated 25 years of marriage.



Mario J. DiFranco, Willoughby

Mario has worked in cooperation with LCSWCD on many occasions and gained a wealth of knowledge about the issues involved in the protection and preservation of Lake County's natural

resources.

Professional Affiliations: Ohio Board of Health Certified Backflow Tester, State Certified Plumbing Inspector, State Certified Building Inspector, licensed Master Plumber since 1980.

Background: Currently Building Commissioner & Zoning & Floodplain Administrator for the City of Willoughby Hills. Holds a position as an instructor for the National Center of Construction Research and its affiliate, Associated Builders & Contractors, Plumbing Apprenticeship Program. Training agent for the Ohio Construction Industry Licensing Board since 1996. Worked as Chief Plumbing Inspector & Building Inspector for the City of Willoughby from 1996—2004. Represents the city of Willoughby Hills as a member of the International Code Council. Member and instructor for the Building Officials Conference of North East Ohio.

Other: Mario and his wife Sharon have been married for 26 years and have four children. They have lived in beautiful historic downtown Willoughby since 1991.

Mario and his family enjoy the outdoors and his family often go camping and hiking. Mario also enjoys the sports of hunting and fishing.



Chris LeGros, Waite Hill

Background: Chris grew up in Philadelphia, Pennsylvania and is a graduate of Pennsylvania State University, with her strengths lying in the environmental sciences. After moving to Ohio in 1980, she received her MBA from Case Western Reserve University. Employed by C.T. Consultants, she is the firm's prime consultant to the Lake County Solid Waste Program and the Lake County Storm Water Agency, notwithstanding her knowledge and expertise in

the art of grant writing. She is, without question, an expert on regional environmental issues and regulations.

Other: Christina LeGros resides in Waite Hill with her husband and two daughters. Chris' deep commitment to the good stewardship of our natural resources extends from her workplace to her home. Avid boaters, the family explores the Great Lakes, experiencing their challenges, their beauty and their surprises.

“CALL BEFORE YOU CUT” HOTLINE TO ASSIST FORESTED LAND OWNERS

PRIVATE FOREST OWNERS URGED TO CALL 877-4B4-UCUT (877-424-8288) FOR HELP

A new resource and consumer protection campaign encourages private woodland property owners to seek advice from a professional forester and to hire a master logger before harvesting trees on their land.

The “Call Before You Cut” campaign is coordinated by the Ohio Department of Natural Resources (ODNR) Division of Forestry, Rural Action, and The Ohio State University Extension. Other primary sponsors of the program include the Ohio Chapter of the Society of American Foresters, the ODNR Division of Soil & Water Conservation, the Ohio Federation of Soil & Water Conservation Districts, The Nature Conservancy and the Better Business Bureau.

The campaign features a toll-free number (877-424-8288) with a live operator on duty weekdays, providing quick answers to caller questions about how to find an accredited forester to help them with management options, and in sustaining the long-term health of their woodlots. Additional information, such as a list of certified Ohio Master Loggers and suggested timber sale contracts items are available on the “Call Before You Cut” web site at callb4ucut.com.

“Woodland property owners can yield greater financial and long term health benefits from their woods by seeking expert advice,” said John Dorka, chief of the ODNR Division of Forestry. “This project brings together resource and consumer protection experts to help landowners make informed decisions about their woods.”

Surveys show a full 40 percent of woodlot owners have authorized harvesting on their lands in the last five

years. Yet only 18 percent have sought the advice of a professional forester.

“We are proud that the Division of Forestry and our partners have found value in a program that was developed by our Forest Advisory Board and implemented by our staff with funding from many foundations. The original goal of Call Before You Cut was to give tools to citizens of Appalachian Ohio to know how valuable their woodlands are and to make good decisions about their land,” said Jane Forrest Redfern, executive director of Rural Action. “We are proud that this ‘Appalachian Grown’ Campaign and our message of sustainable forestry will be able to reach more people throughout the state.”

Ohio’s nearly 8 million acres of privately owned forested land makes up a third of the state’s landscape. In the past 10 years, the number of forest landowners has grown from 320,000 to nearly 400,000.

“Woodland owners often don’t have critical information before they contract someone to harvest their trees. Many don’t know how much their timber is worth, how many trees will be cut, or even what their woods will look like after the job is done,” said Dave Apsley, Ohio State University Extension forestry specialist. “Call Before You Cut directs them to professional foresters, trained loggers and other specialists who can provide them with information and technical assistance. This helps to protect their financial interests while conserving trees, wildlife, soil, water and other forest resources.”

POND *(Continued from page 2)*

fountain or aerator is used to control algae by increasing dissolved oxygen in the pond. There are also products which add “coloring” to the pond and essentially “shade” out algae and aquatic vegetation. Care should be used with any of these products to prevent them from entering wetlands or streams that may be located near the ponds outlet.

Sediment Any pond that has a stream flowing into it will constantly be receiving sediment from the creek. As a stream flows it suspends small particles of sand and silt and then deposits them in deeper water. “Online” ponds often become silted-in over time. The most desirable method is to have the pond “off-line.” If that is not feasible, then the construction of a “forebay” which will trap the sediment in a location where it is easy to remove with heavy equipment is the next option. Water clarity issues caused by suspended sediment in the pond can be treated by adding alum, agricultural gypsum, or hydrated lime. This will cause the suspended sediment to settle to the bottom. If you would like assistance in calculating treatment rates or methods for your pond please contact the Lake County Soil and Water Conservation District.

Good housekeeping around the pond is also advisable. Surface water draining into the watershed can carry pesticides, fertilizers, nutrients, and other contaminants to the pond. Delineate the watershed of your pond, or ask the SWCD for assistance, and learn what kind of potential issues are nearby. Do your best to keep excess fertilizers and nutrients from entering the pond to lessen the severity of algae blooms and growth of nuisance weeds. A buffer area of dense vegetation around the pond is a good practice to reduce the amount of surface contaminants entering a pond and/or stream.

If you would like assistance with management of your pond please contact the Lake SWCD at 440-350-2730.

WHO WANTS TO BE A CONSERVATIONIST?

Water Quality Edition: Do you know the facts about water quality issue? Test yourself with the true/false questions below.

1. T or F Warm water holds less oxygen.
2. T or F Plants use oxygen as well as creating it.
3. T or F Pond weeds are bad for fish.
4. T or F Mosquitoes plague even well-managed ponds.
5. T or F Sediment in a pond can be managed
6. T or F Summer winds are good for mixing oxygen into the water column.
7. T or F A healthy pond is surrounded by grass because shrubs and trees drop too many leaves into the water
8. T or F West Nile Virus can only be caught via mosquitoes.

- Answers:
- (1) True, dissolved oxygen decreases in warmer water
 - (2) True, in the dark plants break down sugars to continue growing, in a process that consumes oxygen.
 - (3) False, generally aquatic vegetation increases the dissolved oxygen in the water, although overgrowth followed by decay can be a problem.
 - (4) False, a healthy pond ecosystem has plenty of mosquito predators to keep the population in check
 - (5) True, lime, alum or gypsum can be used to settle sediment, and a forebay can be created to catch incoming sediment
 - (6) False, in the summer, ponds usually stratify, and the layers do not mix
 - (7) False, the shade and structure provided by overhanging shrubs actually keep the water cooler and provide habitat, while repeated mowing introduces grass clippings and can damage the pond bank with the heavy equipment
 - (8) True, so far West Nile Virus has not been shown to spread by direct human contact with either an infected human or animal. The only known cases are from mosquitoes carrying the virus between hosts.

LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

125 E. Erie St., Painesville, OH 44077

•440-350-2730 (main number) •FAX 440-350-2601

Toll-free •428-4348 ext. 2730 Madison/Perry

•918-2730 Cleveland/Western Lake County

•1-800-899-LAKE ext 2730 outside Lake County only

Office Hours: Mon.-Fri. 7:30 am-4:00 pm

•E-mail: soil@lakecountyohio.org

•Web site: www.lakecountyohio.org/soil

| | |
|---|----------|
| PAM BROWN, District Secretary/Treasurer | 350-2041 |
| DAN DONALDSON, District Administrator | 350-2030 |
| CHAD EDGAR, Urban Stream Specialist | 350-2032 |
| VACANT, Agricultural Program Technician | 350-5863 |
| BETH LANDERS, Education/Information Coordinator | 350-2033 |
| VACANT, Stormwater Specialist | 350-2092 |
| MATTHEW SCHARVER, Resource Protection Specialist | 350-2031 |
| AL BONNIS, District Conservationist, NRCS | 437-5888 |
| JOHN NIEDZIALEK, Western Reserve RC&D Coordinator | 350-2034 |

BOARD OF SUPERVISORS

RON MAUK (1989-1997, 2004), MENTOR, VICE CHAIR

STEPHANIE BERES (2004), CONCORD, CHAIR

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DENISE BREWSTER (2006), CONCORD, SECRETARY

BILLIE KAMIS (2006), WILLOUGHBY HILLS, FISCAL AGENT

MEMBER OF:

- American Farmland Trust •Lake County Farm Bureau
- Nursery Growers of Lake County, Inc.
- National Association of Conservation Districts
- Ohio Federation of Soil & Water Conservation Districts

AN EQUAL OPPORTUNITY EMPLOYER: All Lake SWCD and USDA programs and services are available without regard to race, age, gender, national origin, political beliefs, color, religion, disability, sexual orientation, or marital or family status.

The public is invited to attend Lake SWCD's monthly Board meetings, held the fourth Tuesday of the month at 7:00 pm at 125 East Erie St., Painesville. Meeting announcements appear under the public agenda in the News-Herald. Please call in advance to let us know you will be attending

Lake County Soil & Water
Conservation District
125 East Erie St., Painesville, OH 44077

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Return Service Requested