

CROSSSECTION



Tree Sale
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FREEZE AND THAW: WINTER POND CARE

The following is the second installment in a two-part series that describes the activities and functions of ponds in northeast Ohio. Whether the pond is used for purely recreational purposes or utilitarian functions, proper management of the pond will ensure success and a healthy, safe natural resource.

The winter months don't provide the pond manager with many opportunities. Before making any recommendations we should understand what is happening in the "winter" pond.

As the water begins to cool during the transition from fall to winter, there is much less activity in the pond. While biological activity slows, the water itself starts rapid movements. The upper layer of water in the pond cools as air temperatures drop. Once it reaches the temperature of the lower layers, the surface water literally sinks and causes circulation. The new surface water then begins to cool and the process is repeated, until the temperature of the surface layer falls below 40° F. This process distributes dissolved oxygen and nutrients into the previously stratified pond, but few organisms are still active in the pond to benefit. Once the circulation has stopped, and ice covers the entire surface of the pond, the dispersion of dissolved oxygen also stops. Now the only oxygen available to organisms is that made by underwater plants. Some pond owners may have experienced a winter fish kill. If heavy snow cover falls on surface ice, the sunlight is shaded out from the pond. Underwater vegetation and algae that rely on sunlight for photosynthesis now begin to decompose and consume even more oxygen. The decomposition of vegetation (which consumes dissolved oxygen), coupled with the lack of dispersion from surface water circulation can suffocate fish. Rarely do ponds ever completely freeze from top to bottom, as water and ice are good insulators; this property of water actually helps to insulate the pond and retain any heat generated from the earth's thermal mass. As the winter weather breaks

and warmer spring days occur, the surface layer gradually warms again. Once the surface water reaches 40° F, the circulation process begins again and continues until the pond reaches a relatively even temperature from top to bottom. Dissolved oxygen and nutrients are again stirred up and dispersed throughout the pond.

Armed with knowledge of winter pond processes, the task of managing the pond should be easier; finding the courage and 10 lbs. of down insulation to brave the weather is the hard part! **Remember that no ice, regardless of thickness, is ever considered to be safe. If you decide to venture out onto a frozen pond, be aware of the hazards.** General housekeeping instructions still apply. For example, if there is a roadway in the watershed that contributes runoff to your pond; salt could be an issue. While the normal application of salt on roadways would probably not cause an increase in salinity during the life of a small pond, a spill could be catastrophic. If there is heavy snow cover on the ice, much-needed sunlight may not be reaching the plants at the bottom of the pond. Some pond owners will head out onto the pond with snow shovel in hand to remove snow. Time could be devoted to creating in-pond habitat. Evergreen trees or wooden structures with heavy anchors can be deposited on the ice to sink into appropriate places in spring. If you have dogwood or willow growing in your buffer zone, these species can be cut during the dormant season and the cuttings can then be planted along the pond in other areas. The cuttings will root and begin to grow during the next season.

Hopefully, this series on pond management has provided you with some insight into the biological, chemical, and physical process of ponds as they progress through the four seasons. If you have a backyard pond, the Lake SWCD offers free technical assistance to Lake County residents. Call 440-350-2730 for more information.

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Special Points of Interest:

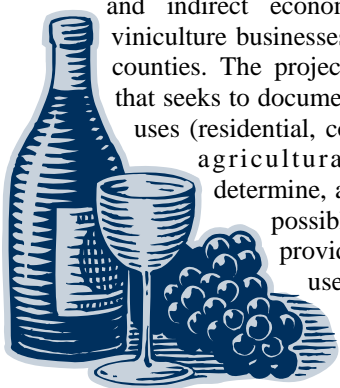
- Cleveland Foundation Grant awarded
- Two new SWCD employees in the office
- Forestry; economics and sustainability

LAKE SWCD AND PARTNERS RECEIVE CLEVELAND FOUNDATION GRANT LAKE COUNTY ECONOMIC DEVELOPMENT COUNCIL AND OHIO WINE PRODUCER'S ASSOCIATION TO COMPLETE ECONOMIC IMPACT STUDY

The Lake County Soil and Water Conservation District, through a joint project with the Lake County Economic Development Council's Agri-business Committee and the Ohio Wine Producer's Association, has secured a grant from the Cleveland Foundation to fund a Viticulture/ Viniculture Economic Impact Study. The project is also supported with technical assistance from the Ashtabula office of The Ohio State University Extension and the American Farmland Trust.

VINICULTURE - THE STUDY OR SCIENCE OF WINE-MAKING

The purpose of this project is to provide the public and our local decision makers with factual data which documents the direct and indirect economic impact of viticulture and viniculture businesses in Lake, Geauga and Ashtabula counties. The project also contains a land-use study that seeks to document the income from different land



uses (residential, commercial, and agricultural) and to determine, as accurately as possible, the costs of providing public services to those land uses. Both projects will begin early in 2007 and should be completed early in 2008. Project results

VITICULTURE - THE CULTIVATION OF THE VINE

will be distributed through various media including printed materials, websites, public presentations and speakers bureaus.

The production of juice and wine grapes is considered to be the last viable agriculture commodity grown in this area. This unique agricultural area, with its sandy soils and its proximity to the temperature-buffering effects of Lake Erie, is experiencing development pressures that negatively impact the potential for continued grape production.

The goal of the project is to provide the public and our local decision makers with factual data to document the direct and indirect economic impact of viticultural and vinicultural businesses in Lake, Geauga and Ashtabula counties.

All three organizations are very excited to be partnering on such a project. "It has been a great experience to find a common-ground project like this our organizations can work together on. Hopefully this is the first of many such projects." said Dan Donaldson of the Lake SWCD.

For additional information on this project contact Maurine Orndorff at 440-350-2730.

NEW FACES AT LAKE SWCD OFFICE TWO NEW EMPLOYEES BRING OVER 25 YEARS OF EXPERIENCE

Lake SWCD ended 2006 by adding two new people to the office staff. Paul Bowyer is the new Stormwater Specialist, and Maurine Orndorff has taken the position of Agricultural Programs Technician.

Maurine Orndorff worked with Geauga SWCD for over six years, and then served another six years on their Board of Supervisors. She played a role in the creation of the Western Reserve RC&D, and represented Ohio on the National Association of Conservation Districts, Great Lakes Committee for three years. Maurine also started a farmland preservation program in Geauga County, and most recently was on the staff of Chagrin River Land Conservancy, which is now a part of the Western Reserve Land Conservancy. She holds a BS in Geography from Ohio University and an MA in Geography from Kent State University. At Lake SWCD, Maurine will be responsible for planning and managing the District's agricultural sustainability and farmland preservation program. She will work with local officials, landowners, nurseries and vineyard operators to promote agricultural viability in the county and assist landowners in applications to state and federal agricultural land protection and sustainability programs. She will continue the work of the District to assist communities in developing agriculturally sensitive zoning and planning, and educate residents about the economic and social contributions of agriculture in Lake County. Maurine lives in Geauga County

with her husband, Jeffrey, and their two high school aged sons. She enjoys being outdoors, walking her dog, reading, practicing yoga and playing the cello with the Chagrin Valley Chamber Orchestra in her spare time.

Paul Bowyer comes to Lake SWCD from ATC Associates in Cleveland. There he managed the Wetland Department, petroleum projects, and Phase I and Phase II projects. He also performed wetland delineation, and wetland and stream mitigation. He holds a BS in Geology from College of Wooster. For Lake SWCD, he will be working with the county, municipalities, and developers to encourage the use of environmentally sound and innovative stormwater quality design elements and practices. Paul will also help administer the local communities' erosion and sediment control rules. He serves as a resource for the District, communities, and land owners on a wide range of environmental issues and areas. Paul and his family live in Concord Township, along Jordan Creek.

Paul Bowyer can be reached at 350-2092 or by e-mail at pbowyer@lakecountyohio.gov, and Maurine Orndorff can be reached at 350-5863 or morndorff@lakecountyohio.gov.



2007 TREE SALE IN PROGRESS



We are now accepting orders for the 2007 Tree Seedling Sale. Many of our best-selling trees are back, along with some exciting new species. New offerings this year include a Hybrid American Chestnut, and three new species (pussy willow, black gum, and red cedar) in the Homeowner's Packet. Also back this year are handmade birdhouses, custom-designed for bluebirds, wrens, bats, or wood ducks and screech owls.

You should have received species descriptions and an order form in your last issue of CrosSection, but if you are new to our mailing list, missed the last issue, or would like to pass the information on to others, please visit the Lake SWCD website to download an order form or call the office at 440-350-2730 to request a form in the mail. Orders will be taken through February 23, or until supplies run out. <http://www.lakecountyohio.org/soil/treesale.htm>

STUDY SHOWS FORESTRY'S CONTRIBUTION TO OHIO'S ECONOMY

COLUMBUS, OH - Results of a new study by the Ohio State University shows the state's forest products industry contributes \$15.1 billion to Ohio's economy annually, employs more than 119,000 people and generates more than \$4 billion in payroll.

According to the study, Ohio's primary wood products industry, including logging and milling, contributes \$803.6 million to the state's economy. While the secondary wood products industry, including furniture and cabinet making and the production of wood pallets, contributes \$4 billion.

Paper manufacturing and processing are significant components of Ohio's wood industry. The companies that process logs into pulp and paper and in turn, paper into products like cardboard boxes and stationary, contribute \$7.5 billion to Ohio's economy. The paper industry is also responsible for employing more than 29,000 people and generating payrolls of \$1.4 billion.

The OSU study was released within a new publication, **Ohio: The Many Sides Of The Forest Economy**, a joint project of the Ohio Forestry Association and the ODNR Division of Forestry.

Approximately 30 percent (8.1 million acres) of Ohio's land area is tree covered - mostly with hardwoods. That number represents a dramatic increase from the early 1900s when farming and the iron furnace industry left only 10 percent of the state forested. Over the years, many of the state's woodlands regenerated naturally or were managed by private and public organizations to promote regeneration and health.

Ohio's public and private forests grow a billion board feet of timber each year. About 300-400 million board feet of timber is harvested, resulting in a net gain of 600 to 700 million board feet annually. This increase allows wildlife to flourish and spurs outdoor pursuits such as hunting, fishing, bird watching, boating and hiking.

LAKE COUNTY INCLUDED IN USDA FOREST LEGACY PROGRAM

COLUMBUS, OH - Landowners in 31 northeastern and southeastern Ohio counties who are seeking to protect their woodlands can now apply for participation in a **federal conservation easement program** that provides a one-time payment in exchange for voluntarily agreeing to **permanently maintain property as a working forest**. Applications will be accepted through February 9, for enrollment in the Forest Legacy Program, which is coordinated nationally by the U.S. Department of Agriculture Forest Service and administered in Ohio by the Ohio Department of Natural Resources (ODNR) Division of Forestry.

"Sustainably managed forested lands not only help clean Ohio's air and water, they provide income to landowners and help support our state's \$15 billion wood industry," said John Dorka, chief of the ODNR Division of Forestry. "By enrolling woodlands in the Forest Legacy program, the landowner is able to earn significant income from a property, while at the same time assuring the long term health of a woods." Landowners who enter the Forest Legacy Program must agree to manage their woodlands according to plans developed in mutual cooperation with the Division of Forestry. If accepted into the program, landowners can get a one-time payment for accepting a conservation easement on the property.

Two regions in Ohio, including **six counties in northeast Ohio and 25 counties in eastern and southeast Ohio**, have been identified as areas that would best benefit from the Forest Legacy Program. These counties have a relatively large amount of forest cover and a significant number of housing starts. These counties include Ashtabula, Carroll, Columbiana, Geauga, Lake, Portage, Summit, and Trumbull counties. Only forested properties within these counties are eligible for the program.

Ohio's forests have increased from just 10 percent of the state's landscape in the early 1900s to more than a third wooded today. While forest cover remains steady, the number of new forest landowners has increased from 320,000 to nearly 400,000 in the past decade. "Many of these landowners are buying smaller woodlots that are less than 20 acres in size," said Dorka. "The Forest Legacy Program is an excellent tool for protecting our highest quality forests from the impacts of fragmentation."

Applications for Ohio's Forest Legacy Program are available from the ODNR Division of Forestry at 2045 Morse Road, Building H-1, Columbus, Ohio 43229; or, on the Internet at ohiodnr.com/forestry/landowner/legacy

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WHO WANTS TO BE A CONSERVATIONIST?

Weather superlative edition. What do you know about weather extremes?

- 1) Ohio's worst winter storm on record was
 - A) Jan 26, 1978
 - B) Jan 10, 1994
 - C) March 15, 1889
 - D) Feb 13, 1947
- 2) Coldest temperature ever recorded in the 'Lower 48' states
 - A) -64.2° at International Falls, Minnesota
 - B) -39.4° in Milligan, Ohio
 - C) -56.5° in Roger's Pass, Montana
 - D) -42.7° at Loveland Pass, Colorado
- 3) Highest single-season snowfall in one location (recorded at Paradise Ranger Station on Mt Rainier, Washington).
 - A) 587"
 - B) 614"
 - C) 919"
 - D) 1122"
- 4) Hottest recorded temperature in Ohio
 - A) 110° in Columbus
 - B) 118° in Marietta
 - C) 113° in Gallipolis
 - D) 115° in Conneaut
- 5) How heavy is a cloud? If you could weigh a cubic kilometer of cloud it would be:
 - A) about 850,000 lbs.
 - B) about 1.4 million lbs.
 - C) about 850 million lbs.
 - D) about 1.4 billion lbs.
- 6) In the past 60 years, the groundhog has predicted the weather correctly ____% of the time.

Answers: 1) A, 2) C (though B is the coldest temperature on record for Ohio), 3) D (that's 93.5 feet!), 4) C, 5) D, 6) 28%

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

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

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MEMBER OF:

- American Farmland Trust •Lake County Farm Bureau
- Nursery Growers of Lake County Ohio
- 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 third 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 and on the Lake SWCD website. Please call in advance to let us know you will be attending.