

CROSSSECTION



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• Special points of interest:

- Info. about the Grand River watershed.
- Stream monitoring results are in – see how Lake County streams scored!
- Lake County students attend the Ohio Envirothon!!
- Come visit us at the Lake County Fair!

DID YOU KNOW?

The **Grand River** was designated Ohio's second Wild and Scenic River in 1974. Designated sections include: **wild (23 miles)** - from Harpersfield covered bridge downstream to the Norfolk and Western Railroad trestle south of Painesville; **scenic (33 miles)** - from the US 322 in Ashtabula County downstream to Harpersfield covered bridge.

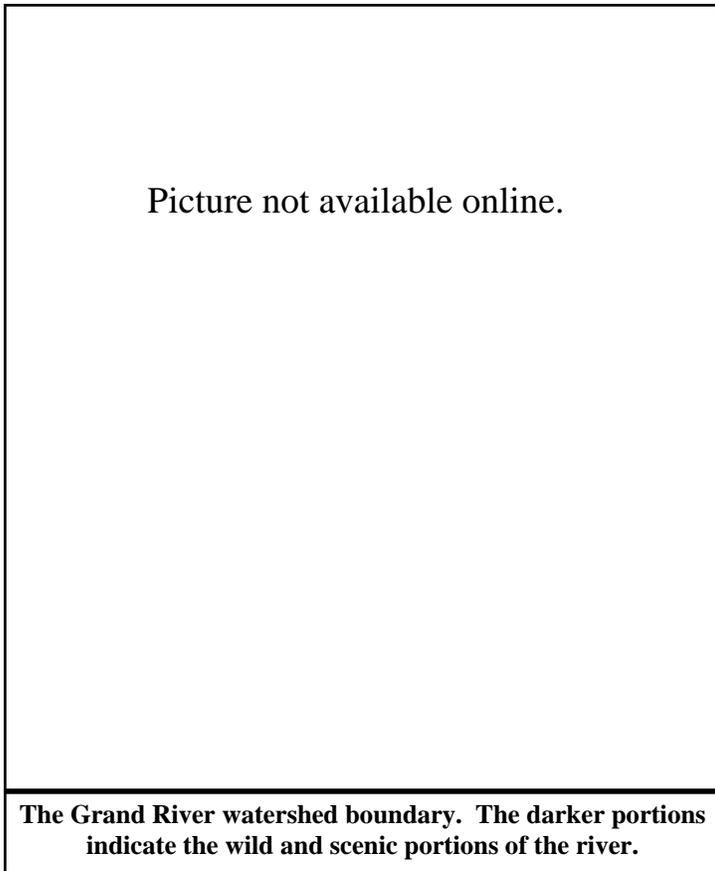


LAKE COUNTY'S WATERSHEDS

In the second of our three-issue series on Lake County watersheds, we will be focussing on the beautiful Grand River watershed. Called "Sheauga sege" in native American language, meaning Raccoon River, the Grand River watershed encompasses over 712 square miles of drainage area in five counties of Northeastern Ohio. With large beaver swamps, northern brook lampreys, black bears, river otters, bald eagles, and wild turkeys present, the Grand River watershed is one of Ohio's most wild and scenic regions. From its marshy headwaters in the Grand River Wildlife Area, the river meanders north through an ancient lake bed to Mechanicsville where it turns west and cascades through a deep and picturesque valley before entering Lake Erie.

Information from A Guide to Ohio Streams, Randall E. Sanders and Ronald J. Zimmerman

THE GRAND RIVER



Picture not available online.

The Grand River watershed boundary. The darker portions indicate the wild and scenic portions of the river.

Mighty, rolling, free-flowing rivers have always attracted human activity - whether fishing, swimming, boating, or daydreaming by the water's edge - rivers are a precious resource that deserve to be safeguarded and handed down with care to future generations.

The Grand River is such a river. From its origins in Geauga and Trumbull Counties, it glides through lush lowlands and rich forests, before making a dramatic turn to the west where it rushes by steep shale gorges on its way to Lake Erie. The Grand River follows a course influenced by the Wisconsin glacier some 14,000 years ago, which re-routed ancient river courses, formed large glacial lakes and carved steep gorges. Today, the river's freezing and flooding still reshapes the landscape.

This 712-square-mile watershed covers 455,680 acres and supports an incredible array of fish, birds, mammals, reptiles, amphibians, and numerous rare plant species. Its intact biological ecosystem and streamside forests of statewide significance make it one of Ohio's finest examples of a natural waterway.

The Grand River has two distinct reaches. The upper reach flows slowly through the

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...THE GRAND RIVER

(Continued from page 1)

broad valley of an ancient glacial lake, past some of the state's largest wetlands, floodplain forests, marshes, wet meadows, and swamps. The lower reach, west of Harpersfield, has cut a steep shale gorge notable for its cold, fast flow, spectacular sedge meadows, glacial slumps, and deep ravines. The lowest reaches of the river created sand dunes and palustrine sand plains, and aquatic beds and emergent marshes were once plentiful. Lake effect precipitation in Ohio's "snow belt" increases the biological diversity of the watershed. Hemlock-white pine-northern hardwood forests in steep ravines and rare hemlock swamp forests provide habitats for plant and animal species usually found in colder,

mountainous climates.

The Grand River, from its low-lying wetlands to its steeply-cut valley walls, is an important natural resource benefiting both human and nature. And although the ecological significance of the Grand River has been recognized by law, many miles of the river and its tributaries are threatened by expanding urbanization.

As we venture into the 21st century, it is up to everyone, whose lives are touched by this majestic river, to work together to insure that the Grand continues to nurture an incredible diversity of life, bringing joy and inspiration to generations for years to come.

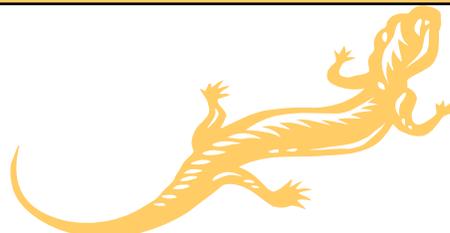
Information from Ohio Landscapes-Spring 2000, a publication of The Nature Conservancy

TRIBUTARIES OF THE GRAND RIVER THAT RUN THROUGH LAKE COUNTY INCLUDE:

- * Tiber Creek – 1.89 miles long (Painesville Twp.)
- * Big Creek – 10.64 miles long (Painesville Twp.)
- * Kellogg Creek – 7.00 miles long (Painesville Twp.)
- * Ellison Creek – 3.78 miles long (Concord Twp.)
- * Gordon Creek – 3.03 miles long (Concord Twp.)
- * East Creek – 5.01 miles long (Concord/Leroy Twp.)
- * Aylworth Creek – 2.36 miles long (Concord Twp.)
- * Hardy Creek – 1.79 miles long (Painesville Twp.)
- * Red Creek – 7.43 miles long (Painesville Twp.)
- * Barber Ditch – 1.79 miles long (Perry Twp.)
- * Paine Creek – 7.48 miles long (Leroy Twp.)
- * Bates Creek – 1.89 miles long (Leroy Twp.)
- * Phelps Creek – 1.04 miles long (Leroy Twp.)
- * Talcott Creek – 1.98 miles long (Madison Twp.)
- * Griswold Creek – 2.27 miles long (Madison Twp.)
- * Mill Creek – 3.03 miles long (Madison Twp.)

GRAND RIVER FACTS

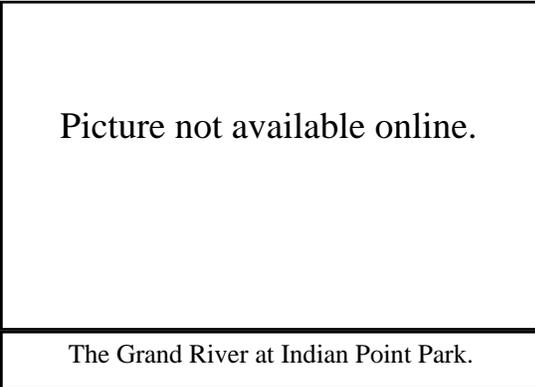
- Drainage Area = 712 sq. miles; about 455,680 acres
- River Length = 98 miles
- Five Counties - Geauga, Lake, Ashtabula, Trumbull, Portage
- 53 named streams
- Tributaries = approx. 62 miles in Lake County
- Aquatic life use designations:
 - Exceptional Habitat = 42.9 miles
 - Warmwater Habitat = 55.6 miles
 - Seasonal Salmonid Habitat = 30.9 miles



DIVERSE HABITATS OF THE GRAND

Rich in forested communities, the Grand River watershed supports beech-maple, oak-hickory, and hemlock-northern hardwood forests. Riparian and floodplain areas are often dominated by trees that tolerate frequent flooding, such as eastern cottonwood, black willow, and black walnut. These streamside forests are critical to the health of the river. They minimize streambank erosion and filter out pollutants from agricultural and urban runoff. Forest canopies lower water temperature and allow the river to support a diversity of aquatic life such as river herring, rainbow trout, eastern sand darter, and northern brook lamprey. The Grand provides habitat for Ohio's smallest salamander, the rare four-toed salamander, and the elusive spotted turtle. Beavers frequent the river banks, and thanks to the Ohio Division of Wildlife's reintroduction program, river otters once again frolic along the banks of the Grand.

Diverse wetlands along the Grand River protect the qual-



ity of the stream's water from degradation. Many of these remaining wetlands support rare plant species, such as painted trillium and bunchberry. The forests along the river shelter nesting and migratory bird populations, including yellow-bellied sapsuckers and Cerulean warblers. The eastern massasauga rattlesnake, a very rare inhabitant of the watershed, has suffered dramatic population declines in recent

years. The watershed may provide one of the best areas for recovery of this secretive reptile in coming years. The Grand supports the following amounts of organisms: 74 fish species; 115 bird species; 45 mammal species; 18 reptile species; 10 amphibian species; 60 rare plant species; 26 freshwater mussel species.

Information from Ohio Landscapes-Spring 2000, a publication of The Nature Conservancy

YOU'RE INVITED...

**TO OUR 55TH ANNUAL MEETING
OCTOBER 4TH, 2001**



To be held at Pine Ridge Country Club
30601 Ridge Rd., Wickliffe, Ohio 44092
A former country estate mansion with loads of Lake County his-

AGENDA:	6-7 PM	Social hour
	7:00 PM	Family Style Dinner
	7:45 PM	Business meeting
		Welcome
		Nomination Report
		Election Procedures
	8:00 PM	Special Presentation: Ohio's Natural Heritage featuring: Guy Denny, Retired Chief of ODNR, Natural Areas & Preserves (will include Scenic Rivers Program)
	9:00 PM	Door prize extravaganza

Supervisor Candidates: *Stephanie Beres*
Carol Fleck

Official election for District Supervisor conducted by Ohio Department of Natural Resources. Voters must be Lake County residents or landowners and 18 years or older.

RESERVATIONS:
DEADLINE SEPTEMBER 26TH

NAME: _____ PHONE: _____

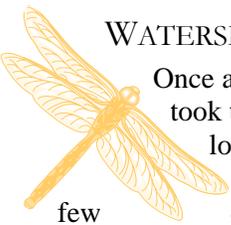
ADDRESS: _____

CITY, STATE, ZIP: _____

____ # of guests Names of guests: _____

Tickets \$18/person and will be held at the registration table
Make checks payable to: Lake SWCD, 125 E. Erie St., Painesville, OH 44077
Check enclosed \$ _____

EDUCATION UPDATE...



WATERSHED WATCH – SPRING MONITORING

Once again, Lake County middle schoolers took to the rivers this spring in search of biological indicators called aquatic macroinvertebrates (water bugs)! Aside from a few cold and rainy days, the weather was beautiful for us! The black flies and gnats were more abundant than usual, and quite a nuisance, but we all survived. 510 middle school students and teachers participated in the Watershed Watch program this spring, monitoring 11 sites in the Chagrin and Grand River Watersheds. Except for our site on the East Branch of the Chagrin River which ranked a **Fair**, all our sites ranked **Excellent** in water quality.

As you can see from above comments, our monitoring

results were exceptional, and tell us that the streams and rivers in Lake County have high water quality, and are able to support many forms of life – macroinvertebrates, fish, plants, and amphibians.

We had some special guests during our spring monitoring. It was a pleasure to have Wickliffe Middle School principal, William Porter, accompany his students down to the river. Unfortunately the weather wasn't on his side, but it sure beats sitting in the office! We were also lucky to have News Herald reporter, Jonathon Tressler, join us in the river. He had the opportunity to interview many eager students from Gilmore Academy about the monitoring program. Students from St. Mary's Painesville had the opportunity to be on film as well, when ODNR representatives filmed them monitoring in the Grand River for a video which is being made by Grand River Partners, Inc.

SCHOLARSHIPS AWARDED BY LAKE SWCD FOR EDUCATION

STUDENTS ATTEND FORESTRY CAMP

Two area students were awarded full scholarships to attend Forestry Camp this summer, which was held the week of June 10-15 at Camp Muskingham. The scholarships were awarded to Michael Kurec of St. Gabriel's School and Toby Orient of Riverside High School. These students are active conservationists and have a keen interest in environmental issues. The outdoor workshop, which is conducted by the Ohio Forestry Association, covers tree identification, ecology, and forest products, as well as offering recreational activities for campers. Congratulations scholarship recipients!

THE GREAT LAKES LEARNING ADVENTURE

Lake County is hosting this year's OFSWCD (Ohio Federation of Soil & Water Conservation Districts) Education Workshop, which is being held August 7-9, 2001 at Lake Erie College. This workshop definitely is "the Environmental workshop" of the year! Lake SWCD is proud to have the opportunity to be a big part of this workshop and has awarded 2 Lake County teachers full-paid scholarships to attend. The recipients are Marilyn Ottato – 5th grade St. Mary's Painesville, and Donna Vansant – 8th and 10th grade Fairport Harding H.S. By attending this workshop, they will find new ways to keep their students excited about being stewards of the environment.

LOCAL STUDENTS COMPETE AT STATE ENVIROTHON

Students from Perry and Riverside High Schools placed first and second place, respectively, out of 68 teams in the Area 2 Envirothon at the Richland County Fish & Game Club, in Richland County, May 2, 2001. In attendance were teams from 17 counties in Northeast Ohio.

Picture not available online.

Perry H.S. Envirothon Team.



The Perry High School team (Pete Burns, Karen Fisher, Meredith Altland, Ja-

son Warren, and Katie Schmidt) and the Riverside High School team (Travis Orient, Heather Hiller, Devin Monnens, Michael Marcinko, and Liz Morton), recently went on to compete at the state level in the Ohio Envirothon, which was held in Wood County at Bowling Green State University, June 10-12, 2001. The Riverside team came in 6th place overall, and the Perry team came in 10th. Envirothon is sponsored by the Ohio Federation of Soil and Water Conser-

Picture not available online.

Riverside H.S. Envirothon Team.

vation Districts, in cooperation with the Ohio Department of Natural Resources (ODNR).

Envirothon is an outdoor academic competition in which teams of high school students test their knowledge of soils, forestry, wildlife, aquatic ecology and current environmental issues. Congratulations to the Riverside and Perry teams!

Come visit our display at the Lake County Fair,
August 14-19!!



LIFE IN THE GRAND RIVER

FRESHWATER MUSSELS



Mussels filter the water and convert microscopic plants and bacteria to animal matter. They are also an important food for muskrats, fish, and other wildlife. Mussels were used by Native Americans for food, beads, and hoes. European settlers also used them for buttons and fish bait. Today, all mussels and their shells are legally protected throughout Ohio so populations can recover from serious declines caused by dams, pollution and the spread of harmful non-native species. Mussels range in size from as large as a dinner plate to less than an inch in length. They feed by filtering microscopic algae out of the water. They are good indicators of high water quality. Pigtoes, wartybacks, papershells, and heelsplitters are but a few of the descriptive names of more than 75 species of Ohio mussels. The Grand River is home to 26 species of freshwater mussels, including the salamander mussel, mapleleaf, Wabash pigtoe, and purple wartyback.

Information from *A Guide to Ohio Streams*,
Randall E. Sanders and Ronald J. Zimmerman

Fish that may be commonly found in the Grand River include:

Central Stoneroller, Bluntnose Minnow, Silverjaw Minnow, Blackside Darter, Trout-perch, Golden Redhorse, Silver Redhorse, Mimic Shiner, Greenside Darter, Black Redhorse, Northern Hog Sucker, Striped Shiner, Rock Bass, River Chub, Blacknose Dace, Creek Chub, Rainbow Darter, Johnny Darter.

The following game fish attract fishermen from all over Northeast Ohio:

Steelhead, Smallmouth Bass, Muskellunge



Each year, Lake SWCD, with area middle school students, monitors portions of the Grand River and its tributaries through our Watershed Watch Program. The tributaries that we monitor include Paine Creek, Kellogg Creek, and Big Creek. We look for aquatic macroinvertebrates, or aquatic insects, which indicate water quality. Below is a list of macroinvertebrates which we commonly find in the Grand River and its tributaries.

Pollution intolerant

Water Penny Larvae
Mayfly Nymphs
Stonefly Nymphs
Dobsonfly Larvae
Riffle Beetle Adult
Caddisfly Larvae

Tolerates some pollution

Cranefly Larvae
Damselfly Nymphs
Dragonfly Nymphs
Beetle Larvae

Pollution tolerant

Blackfly Larvae
Midge Larvae

WHO WANTS TO BE A CONSERVATIONIST?

- Which of the Great Lakes is most likely to be affected by storm surges and seiches due to its geographic orientation and its small volume?
A. Lake Michigan B. Lake Superior
C. Lake Erie D. Lake Huron
- What drainage basin is Lake County located in?
A. Cuyahoga Basin B. Lake Erie Basin
C. Ashtabula Basin D. Ohio River Basin
- French Voyageurs canoed through the Great Lakes to trade blankets, knives, and other items for
A. manufactured goods. B. fish.
C. grain. D. furs.
- Ohio's largest common stream fish, the _____, can exceed four feet in length and weigh more than 80 pounds.
A. creek chub B. yellow bullhead
C. smallmouth bass D. flathead catfish
- Which of the following contributes to the destruction of shoreline property along the Great Lakes?
A. Waves
B. Pollution of lake water
C. Regulation of the lakes
D. Diversion for agriculture
- The Great Lakes make up the largest freshwater system in the world. True or false?
A. True B. False
- The 1972 Great Lakes Water Quality Agreement emphasized a reduction in this chemical to control eutrophication
A. nitrogen B. sulfur
C. phosphorus D. mercury
- Which of the following animal/animals are invasive species in the Great Lakes?
A. Sea lamprey B. White perch
C. Zebra mussel D. All of the above
- Which of the Great Lakes has the smallest volume of water?
A. Lake Ontario B. Lake Erie
C. Lake Michigan D. Lake Huron
- What major coal and iron ore port in Ohio is located between Conneaut and Cleveland?
A. Ashtabula B. Fairport Harbor
C. Madison-on-the-Lake D. Eastlake

FOR MORE INFORMATION ABOUT THE GRAND RIVER, CONTACT...

Grand River Partners, Inc.
Lake Erie College
319 Washington St.
Painesville, Ohio 44077
440-639-4773
<http://www.ncweb.com/org/grandriver/>

Ohio Department of Natural Resources, Division of Natural
Areas & Preserves, Scenic Rivers Program
1889 Fountain Square Court
Columbus, Ohio 43224-1331
614-265-6453
<http://www.dnr.state.oh.us/odnr/dnap/dnap.html>



**STATE POSTER CONTEST
WINNER!**

Congratulations to Morgan Brubaker, of Rabbit Run Community Art Association (RRCAA) in Madison. After winning 1st place at the District and Regional level, Morgan's poster went on to win 1st at the state competition. This contest is sponsored by the Ohio Federation of Soil and Water Conservation Districts (OFSWCD). Morgan is a first grader and won in the K-1st category. All of Ohio's winning posters will be displayed at the OFSWCD's Summer Supervisors School in Columbus, Ohio, July 22-24, 2001. As a first place winner, Morgan will receive a \$75.00 U.S. Savings Bond. Morgan entered the contest through her cartoon class at RRCAA, taught by Jacci Stincic.



**ATTENTION WOODLOT
OWNERS!**

The Ohio Woodland Steward Program is offering workshops consisting of three all-day sessions, starting at 8:30 am and includes three field trips. The two locations are listed below:

October 3, 4, and 5 in Tuscarawas County – Interested landowners are encouraged to register before September 28, 2001. For more info. contact Edward Smith, (740) 732-2381 or Chris Zoller, (330)0339-2337, 1-888-398-7175.

October 24, 25, and 26 in Fairfield County – Interested landowners are encouraged to register before October 19, 2001. For more info. contact Edward Smith, (740) 732-2381; Jeff McCutcheon or Howard Siegrist at (740) 653-5419.

**LAKE COUNTY SOIL & WATER CONSERVATION
DISTRICT**

125 E. Erie St., Painesville, OH 44077

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

Toll-free •298-3334 ext. 2730 Madison/Perry

•918-2730 Cleveland/Western Lake County

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

•E-mail: reach any staff member: office@soil.co.lake.oh.us

•Web site: <http://www.lakecountyohio.org/soil/>

PAM BROWN, District Secretary/Treasurer 350-2730

DAN DONALDSON, District Administrator 350-2030

CHAD EDGAR, Urban Stream Specialist 350-2032

AMY KNISELY, Education/Information Coordinator 350-2033

JOHN NIEDZIALEK, Western Reserve RC&D Coordinator 350-2034

MATTHEW SCHARVER, Resource Protection Tech. 350-2031

BRETT RODSTROM, Urban Resource Technician 350-2031

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PAUL BELANGER, 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 Wednesday of each month at 7:00 pm at 125 East Erie St., Painesville. Meeting announcements appear under the public agenda in the Plain Dealer and 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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