

River Waves

FALL/WINTER 2010

VOLUME 7 ISSUE 1

**CELEBRATING 10 YEARS
OF PROTECTING WATER QUALITY FOR YOU AND YOUR FAMILY**

ORSANCO Adopts Variance Rule States Free to Allow More Toxic Pollution of Ohio River

As if the Ohio River didn't have enough to worry about with continued combined sewage overflows and receiving more than twice the toxic discharge of any other river in the United States, now it needs to brace for possibly more toxins. The Ohio River Valley Sanitation Commission (ORSANCO) adopted a rule at its October meeting that paves the way for states in the watershed (Ohio, Indiana, West Virginia, New York, Pennsylvania, Illinois, and Kentucky) to permit more biological chemicals of concern (like mercury) to flow into the Ohio River.

Unfortunately, after previous failed efforts by ORSANCO to weaken water quality standards, this ruling will threaten water quality and public health. It's now up to the state agencies to decide whether or not to adopt the ORSANCO variance rule. [More info. at www.ohioriverfdn.org](http://www.ohioriverfdn.org)



Ohio River Foundation To Coordinate Major River Restoration Project

The Stillwater River in west central Ohio has a 93 year old dam on it that the Village of West Milton wants to remove. Ohio River Foundation has stepped in to assist the Village in obtaining funding for the removal and is also facilitating public and agency outreach amongst all the stakeholders. The dam's condition is deteriorating and sponsor funding is available to remove the dam at no cost to the Village of West Milton.



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to Ohio River Foundation!**
Go to www.ohioriverfdn.org

The removal of this non-operating dam will (1) reconnect 200 miles of the upper Stillwater River watershed to the downstream section, (2) remove a safety hazard and potential source of liability, (3) avoid current and future repair costs, and (4) present additional recreational and economic opportunities.

From the Executive Director

As Ohio River Foundation celebrates 10 years of environmental success we pause to assess changes in the winds blowing in Congress. With national mid-term elections resulting in a change in congressional power there is concern amongst many that years of environmental protection success will be sacrificed on the pro-business alter. I hope not.

There is a clarion cry from pro-business entities that there is too much regulation and it is stifling business development and growth. However, environmental regulations are rarely singled out in the discussion and that should not be done in this case.

Environmental regulations per se are not bad. Without such regulation our drinking water would not be safe and our air would be less clean. It's a question of balance and enforcement. Right now, unfortunately, *regulation* is getting a bad rap based upon business rhetoric that one or another regulation is limiting growth, development, and thus, contributing to unemployment. But, if history is any guide, when the Clean Water Act and the Clean Air Act were passed in the 1970s, new businesses and opportunities were created. Yes, some businesses suffered as uncontrolled pollution was no longer an acceptable business practice. But the majority of businesses adapted, survived, and thrived.

Thus, history should guide our response to environmental regulatory controls ... not fear. Otherwise we risk losing for ourselves and our children the progress achieved in the condition of the environment and the quality of life we have grown to strive for and appreciate.

Best wishes from all of us at Ohio River Foundation for a happy and healthy new year!

From the River,
Rich

TEN YEARS OF ACCOMPLISHMENTS

CONSERVATION

- (2010) **ORF receives grant** to facilitate removal of West Milton lowhead dam on the Stillwater River.
- (2007-present) **Community Rain Garden Program.** Installed 7 stormwater rain gardens in Ohio and Kentucky totaling more than 6,500 sq. ft.
- (2006) **Published River at Risk** – An Economic Analysis of Ohio River Locks. This first public analysis exposed serious flaws in Corps of Engineers navigation traffic forecasting.
- (2006) **Led a successful effort** to force the Army Corps of Engineers to scrap plans to build auxiliary lock extensions on the Ohio River, after it was revealed that the benefits did not outweigh the cost. The project would have wasted \$2 billion of taxpayers money and destroyed 11 river acres of habitat.
- (2006) **Formed Ohio River coalition** of groups to resist efforts by the Ohio River Valley Water Sanitation Commission (ORSANCO) to drastically weaken water quality standards for the Ohio River. More than 5,000 comments filed, and 250 people at public hearings voiced their opposition causing ORSANCO to postpone a vote on the proposals.
- (2003) **Published A Framework for Ecosystem Restoration** of the Ohio River and its Watershed, detailing the scientific issues related to comprehensive ecosystem restoration for the Ohio River and its watershed.

EDUCATION

- (2009-present) **Launched School Rain Gardens Program** with 750 students from 4 schools designing and installing 1,600 sq. ft. (total) of rain gardens.
- (2008-present) **Became first** non-profit promotional USEPA WaterSense Partner in Ohio River watershed.
- (2005-present) **River Explorer.** 9,300 schoolchildren from 40+ schools have come down to the Ohio River and local waterways to learn about Ohio River watershed ecology, conservation, and stewardship.
- (2003-present) **Produce an educational** and recreational event: the Great Ohio River Paddle. Paddlers participate over the course of the multi-day event to learn about Ohio River conservation issues, river communities, and fund-raiser for ORF.
- (2007-2009) **Partnered with Aveda, Inc.,** to educate 300,000+ customers in OH, IN, and KY about rain gardens, stormwater pollution, and homeowner conservation, and raised \$300,000 for ORF programs.

Showerheads Are Shipping

Campaign Response Is Overwhelming

Sales of high efficiency high performance showerheads are beginning to ramp up! The response has been overwhelming. We're also beginning to sample test at universities, hotels, and other institutions to help lower their utility costs and reduce wastewater discharge to sewer systems and rivers and creeks.

Simple to install, high efficiency showerheads can reduce homeowner water use and water heating costs by as much as 40%. State-of-the-art low-flow showerheads are designed to deliver fewer gallons of water per minute but with the same pressure as a traditional showerhead.

Example: A family of three...1,000 showers per year, ten minutes per shower, traditional showerhead using 4 gallons of water per minute, all equals 40,000 gallons! Using a high efficiency low-flow model rated at 1.5 gallons per minute, water use is cut by more than half, saving more than 20,000 gallons annually! If this water is heated, savings include reduced hot water costs.

Being smart about how you use resources like water and energy is good for the environment, reduces wastewater pollution, lowers utility costs, and **homeowner utility bill savings will pay for the cost of a high efficiency high performance showerhead within just a few months.**



For more information on water and money saving ideas, and to purchase low-flow high performance showerheads, visit www.ohioriverfdn.org or call 513-460-3365.



Front cover to ORF showerhead flyer.

River Waves is published by the Ohio River Foundation. Ohio River Foundation is a citizen led, non-profit, non-governmental organization that works through education and conservation programs to protect and improve the natural condition of the Ohio River and its tributaries for the health and employment of present and future generations.

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River Explorer Beefs Up Staff

New Educators Hired as Program Prepares to Reach 10,000 students

New educators joined ORF this fall to bolster our educator team. They are: Jennifer Hagar, Allison Cone, and Sara Luse. These ladies provide the necessary energy and vitality that ORF needs as we look to expand our presence in the region.

Since 2005, Ohio River Foundation has reached an ever increasing number of children in Greater Cincinnati with our hands-on programs. Now more than 2,500 students per year (grades 4-12) have an educational experience with the Foundation. Celebrate with us as we reach the 10,000 student milestone during the 2010-2011 school year!

Read more about our River Explorer, School Rain Gardens, and Wonderful Watersheds programs at www.ohioriverfdn.org.

REGISTER YOUR SCHOOL NOW
At www.ohioriverfdn.org

*for ORF's Popular River Explorer
Field Trips, Wonderful Watershed
In-Classroom Experience,
and School Rain Gardens.*

Dear Ohio River Foundation,

Thank you so much for giving up your time to teach us. I had a great time! I learned so much that I couldn't have in a classroom. I got to explain bio-indicators and macro invertebrates to my family. They were very impressed that I knew this stuff. I also learned how to tell the difference between a right-handed and left-handed snail, and what the difference means for the water quality. I learned about a bunch of fish that I never knew existed. I loved the chemistry station. Before this field trip I didn't even know what turbidity and dissolved oxygen were! I loved this field trip, and I learned a ton. I wish I could go on the field trip again. Thanks again for your time and effort! I really appreciated it.

Sincerely,
Maria

"I learned that a bioindicator is a living thing that can tell you information about an ecosystem. I learned that a macro invertebrate is an animal without a backbone that can be seen with the naked eye, and if a stream has water pennies in it, it is probably healthy."

"I learned so many new things I think my head grew!"

"In my first activity, chemistry, I was in the Dissolved Oxygen group. I hadn't even heard of "D.O." before! I was fascinated that the tablets could change the water color depending on the amount of oxygen."



We regularly receive artwork and letters from students thanking us for a memorable River Explorer educational experience.

"I also liked using the dichotomous key to find out what kinds of fish we caught."



"We learned so many things! It was a lot of fun, too! My favorite part of the trip was the Chemical Station. I liked collecting the water samples for the test. In the chemical station, I learned that cold water holds more oxygen than warm water. In other stations, I learned about fish adaptations."

Thank you for letting us visit
I'm sure glad I didn't miss it
Those little fish in the river
The water was cold, it made me shiver

The water churning, round and round
Slimy, slippery rocks on the ground
Lots of fish, big and small
The water went up to my shoulders, I didn't feel tall

By: Rachel

This is a picture of the new way of fishing I learned.

"I never knew about all the different tests like pH, temperature, and conductivity that you can do to tell if a river or stream is healthy."



"We caught two Brindled Madton catfish at the fishing station, which were really cool!"

"The new way of fishing is 2 people at a net and the rest of the people walk toward the net in a C formation and when the C gets there you lift the net. Thanks for the fun field trip it is one of my favorite."

"Thank you for an awesome field trip! I had lots of fun and learned a ton of new information. I hope that we get to come back!"



Another thing I learned was about how the fish's mouth determines where it eats. If the fish's mouth is on the top of its head, it is supraterrinal and it eats on the surface of the water. If its mouth is at the bottom of its head, it is subterminal and it eats at the bottom. If the mouth is in the middle of its head, it is terminal and it eats in front of itself.

The last thing I learned on our field trip was about how the fish's shape affects its velocity or speed. If the fish has a long, fat shape, it will have a slower velocity and be less of a predator, but if it has a skinny, torpedo shape, it will have a faster velocity and be more of a predator. The speed of the fish can also depend on its fins. The fins also help the fish maneuver. The types of fins are the Caudal fin, Dorsal fin, Anal fin, Pelvic fin, and the Adipose fin.

Once again, thank you for teaching me about bio indicators and chemistry of the Miami River. What I have learned about the river is valued very much and I am glad I had a fun time on the field trip.



Sincerely,

Mitch

Mitch



Hundreds Turn Out to Voice Concerns About Coal Ash Pollution Regulations

With 40 coal-fired power plants in the Ohio River watershed, coal ash waste is getting more attention as coal slurry spills continue to impact water resources. Now the USEPA has stepped in to try to regulate the waste and public health officials, citizens, and industry are weighing in. A public hearing in Louisville on Sept. 28 drew hundreds of proponents and opponents to coal ash regulation. At issue is a proposed regulation change by USEPA that would more strictly regulate coal ash with the

intent to more fully protect surface and ground water supplies. Opponents to the regulation fear more stringent regulation will impede reuse of the waste in road building and other activities. However, there appears little disagreement between the two sides as to the toxic content of coal ash, just disagreement as to how dangerous it is and how it should be managed. Learn more at www.ohioriverfdn.org.



EPA to Expand Chemicals Testing for Endocrine Disruption

The U.S. Environmental Protection Agency (EPA) has identified a list of 134 chemicals that will be screened for their potential to disrupt the endocrine system. Endocrine disruptors are chemicals that interact with and possibly disrupt the hormones produced or secreted by the human or animal endocrine system, which regulates growth, metabolism and reproduction. Administrator Lisa P. Jackson has made it a top priority to ensure the safety of chemicals, and this is another step in this process. The list includes chemicals that have been identified as priorities under the Safe Drinking Water

Act (SDWA) and may be found in sources of drinking water where a substantial number of people may be exposed. The list also includes pesticide active ingredients that are being evaluated under EPA's registration review program to ensure they meet current scientific and regulatory standards.

The chemicals listed include those used in products such as solvents, gasoline, plastics, personal care products, pesticides, and pharmaceuticals, including benzene, perchlorate, urethane, ethylene glycol, and erythromycin.

After public comment and review, EPA will issue test orders to pesticide registrants and the manufacturers of these chemicals to compel them to generate data to determine whether their chemicals may disrupt the estrogen, androgen and thyroid pathways of the endocrine system.

In October 2009, the agency issued orders to companies requiring endocrine disruptor screening program data for an initial group of 67 pesticide chemicals. EPA will begin issuing orders for a second group of 134 chemicals beginning in 2011.

EPA Opposes Coal Mining Water Permits in Kentucky

For the first time in nearly 20 years, the U.S. Environmental Protection Agency is taking action in Kentucky by blocking 11 water discharge permits sought by coal mines in the state (100 new or renewing mining permits are pending). The EPA says that the mines fail to protect the waterways of eastern Kentucky. EPA's move in Kentucky is similar to actions it has taken in other Appalachian states. Letters sent to the Kentucky

Division of Water by EPA Region IV cite the state's own assessment of existing poor water quality in the areas where the permits are being sought. It also says that state regulators moved too quickly in an effort to approve the permits and failed to analyze whether proposed discharges from new surface mining activity would likely violate state water quality standards.

Great Ohio River Paddle Brave Rain, Lightning and Tons of Floating Debris

It was a stormy first day on the Ohio River for paddlers in the Great Ohio River Paddle (GORP) – Voyage of the Dammed. This 7th edition of GORP was more of a challenge than in past years as Saturday featured torrential rain storms. Lightning suspended paddling on the river for about 2 hours while the storm raged on and passed through the area. But by mid-afternoon skies cleared and the paddlers added a few more miles of Ohio River paddling to their White Oak Creek morning paddling experience.

Sunday was calmer with lots of sun to accompany paddlers on their trip through the auxiliary lock at the Captain Meldahl Locks & Dam. Because the storms flushed tons of debris into the tributaries and on into the Ohio River, paddlers had to act as ice breakers forging single file through the barrels, tires, and acres of tree limbs greeting them in the middle of the lock chamber.

GORP veteran Laura Taphorn of Cincinnati remarked, “This GORP was definitely very memorable with diverse and challenging weather conditions during the two days, but GORP and Ohio River Foundation staff managed them fabulously well.”



Great Ohio River Paddlers wait along with tons of debris to exit the auxiliary lock of the Meldahl Locks & Dam — Photo by Sam Cogen

“Great food, great time, and fun people,” commented Don Winton of Chardon, OH. “My first GORP and I’ll be back.”

Mick Vank (another GORP veteran) of Cold Spring, KY said, “The experience of paddling safely during heavy rainstorms and visiting Augusta, KY were some of the many weekend highlights.”

Water Footprinting



Reprinted in-part from article by Alexandra Alter Wall Street Journal, 2009

A cotton T-shirt typically takes 700 gallons. A typical hamburger takes 630 gallons of water to produce – more than three times the amount the average American uses every day for drinking, bathing, washing dishes and flushing toilets. The bulk is used to grow grain for cattle feed. These measurements are not just the water used to make beverages and cool factories, but also the gallons used to grow ingredients and product components.

Water Footprinting is modeled partly on carbon footprinting,

a widely used measurement of carbon-dioxide emissions. Lately, water footprinting has gained currency among corporations seeking to protect their agricultural supply chains and factory operations from future water scarcity.

A large water footprint isn’t necessarily bad if the product is made in an area where water is plentiful and well managed. Almost all of the water that goes into crops and food production is returned to the water cycle, either as evaporated water or in the form of polluted runoff. But it is temporarily unavailable for other uses, and may not be restored to the same aquifer, lake or river if it comes back as rainfall in another

region. That poses problems for water-scarce areas.

But irrespective of water availability there is also the cost for clean water. Whether it’s treatment or transportation cost, increasingly the public is facing rises in sewer and water usage rates. Thus, it is becoming important for users to recognize the value to them and the environment in replacing plumbing with current models that perform better than models only a few years old. It’s not just a matter of environmental sustainability but also a huge potential personal and municipal savings.



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WHAT IS YOUR WATER FOOTPRINT?

see page 7

