



Rivers Quarterly

Newsletter of Rivers Unlimited, Ohio's Statewide River Protection Organization

A Wet Place to Spend Our Tax Money! Pork?

A tunnel is a place to store floods (stormwater) and sewage, until you can treat these liquids at a wastewater treatment plant.

Mill Creek in southwestern Ohio (Cincinnati, Hamilton County and some Butler County), a watershed area 213 square miles, is a proposed site for such a tunnel. The Army Corps of Engineers (surprise, surprise!) has proposed a 16-mile long tunnel, 31 feet in diameter, 200 to 300 feet below ground, to cost \$1.23 billion. It would give protection to buildings and structures in the floodplain against floods having a 1% chance or less of occurring in any year (100-year flood frequency).

It would accept combined sewer and sanitary sewer overflows as well but would protect only against overflows having a 50% chance of happening in any year (2 year frequency) which ain't much! There are about 100 overflows a year. We don't know how to translate that into "improved" water quality, or whether that would solve the region's problem of an elderly and undersized sewer system – treatment plants as well as pipe network, which has resulted in violations of the Clean Water Act since its passage in 1972, regularly fouling Mill Creek and the Ohio River. Yet the Mill Creek watershed is only part of Hamilton County's watershed which also drains into the Little Miami River, the Ohio River and the Great Miami River.

Getting back to taxes ... if the U.S government funds the tunnel, it (we) would pick up 65% of the \$1.23 billion cost. Proponents are lobbying for the feds to pay 100%! Ohio and Hamilton County would pick up the remaining 35% or about \$430 million. Ohio's broke – like so many states. That leaves the locals to pay – with higher sewer fees.

The Army Corps says without the project the losses would be \$68 million a year (over a 50-year design life) and that 80% of the benefits of a tunnel would fall to 25 structures (factories, warehouses, offices) out of 663 total. So the benefits to those 25 would be \$54 million a year or \$2.7 billion over 50 years – or \$2 million per year per building. We would be spending \$1,070,000 per building per year as a subsidy for these buildings in the floodplain.

Several of the 25 buildings were built recently, perhaps in the belief the Corps would floodproof them – either with a stream channelization begun in 1981 and stopped in 1992, or an alternative such as ring dikes or a tunnel.

As to the credibility of the Army Corps of Engineers, here are some figures:

- 1959 Flood - \$2 million in damages.
- 1970 *Flood Control* project authorized by Congress at \$32 million.
- 1979 Flood, with flood levels equivalent to 1959. Damages about \$100,000. No mention in local newspapers.
- 1981 partial funding, channelization begun.
- 1992 construction 40% complete, \$110 million spent. Completion as designed would cost over \$300 million. Corps decides to *walk away* from the project as not economically sound.
- 1994 or 5 cost to complete original project now over \$400 million. Corps asked to do General Reevaluation Report (at \$1.5 million). Gets money from Congress.
- 2000 (approx.) tunnel cost estimated at \$600 million.
- 2002 (approx.) tunnel cost estimated at \$800 million.
- 2003 tunnel cost now estimated at \$1.23 billion (add to that the \$110 million spent by 1991).
- 2003 General Reevaluation Report looks at 9 alternative flood options. This report has cost \$6 million so far,

See **ARMY** on Page 2.

Inside this issue...

• WINTER 2004 •

- 2 • *RU Unveils New Website*
- 3 • *A Taste of River Economics Abroad*
- 4 • *Local Update: Saving Minnow Creek*
- 5 • *Channelization Destroys Fish & Wildlife*
- 6 • *What's Missing in the Clean Water Act?*
- 7 • *The Great Miami – An Ohio Scenic River?*

Need to reach us? See page 2 for our address, telephone and website information.

EYE ON RIVERS UNLIMITED

RU Unveils New Website!

One of the most exciting projects Rivers Unlimited has undertaken this year is the redesign of its website www.riversunlimited.org. Many months of work culminated in September when the new site went online. Rivers Unlimited Board member Damon Green, a graphic designer by trade, spearheaded the project, designing the layout of the site and working with RU staff and board to update and expand the content.



The new website offers a wealth of information for people working to protect and restore their local waterways. Online are several studies that Rivers Unlimited has completed on River Resource Economics, which show that investing in a river's health and recreational potential can pay off for local communities. Also online, you can read about hot river issues, including dams, water pollution, and the issues we've featured in our newsletters, which are indexed and easy to search. The site also features up-to-date news, a journal by Rivers' founder Mike Fremont, photos from recent events, links to other river protection groups, and the ability to donate to Rivers Unlimited online. Stop by and visit www.riversunlimited.org next time you're online. We think you'll like what you find! ♦

Army (cont. from front page)

needs another \$3.9 million, to have complete GRR in 15 months (after Appropriations). Remember, this cost has risen from \$1.5 to \$10M.

- 2005 choose which alternative: one includes slightly more environmentally benevolent channelization; one uses ring dikes to protect 25 buildings; one considers buyout of floodplain structures; tunnel option.
- 2007 begin project.
- 2016 (if tunnel is chosen) project is complete.

Consider,

- 1 The priorities of Congress for funding a subsidy to business interests to keep them dry in the floodplain where they had no business building.
- 2 The priority of this \$1.23 billion project compared to Homeland Protection, funding to Ohio for schools, roads, bridges and other crumbling infrastructure ... national competition for the Corps \$2 billion annual budget, with a \$57 billion backlog – average project age 25 years.
- 3 The cost escalation, from \$32M in 1970 to \$1.23B in 2003 – 41 times the cost!
- 4 The time lost: 1970 to 2016 (maybe). 46 years of terrible floods! Protection is most urgent indeed!
- 5 The Corps says the costs of the tunnel will exceed the benefits. The benefit-cost ratio is 0.93 to 1. The Corps will have a lot of bureaucratic pressure put upon it to change that unfavorable ratio (Congress likes good B/C ratios).

Profiteers

- **Towns of Evendale and Sharonville**, owning a lot of floodplain land, on which they have induced taxpaying commerce to build.

Rivers Unlimited

Board of Trustees

Susan Knight, *Cincinnati*,
Co-President

Marilyn Wall, *Glendale*,
Co-President

Mike Fremont, *Glendale*,
President Emeritus

Marshall A. Moser, *Lima*,
Vice President

Peter Neirouz, *Cincinnati*,
Treasurer

Maggie O'Malley, *Cincinnati*,
Secretary

Lewis Barbini, *Logan*
R. Hunt Brawley, *Marietta*

Damon Green, *Cincinnati*
Douglas Hill, *Elyria*

Justine Magsig, *Woodville*
Eric Partee, *Milford*

Tom Quinn, *Cincinnati*



*Ohio's Statewide
River Protection Organization*

515 Wyoming Avenue
Cincinnati, OH 45215

(513) 761-4003 • (513) 761-4988 Fax
info@riversunlimited.org
www.riversunlimited.org

- **The Mill Creek Conservancy District** set up to provide flood control (sic) in those days and in 41 years have not.
- **The businesses in the floodplain** getting free flood protection (some day?).
- **The Metropolitan Sewer District**, claiming the tunnel would help bring them into compliance with the Clean Water Act in 2016, and would save them money over any of the flood damage reduction alternatives.

PORK? You answer! Your taxes at work! ♦

A Taste of River Economics Abroad

Ohio is not alone in its fight!

We're accustomed to saying to communities "Your opportunities to make money on a polluted river are limited. Clean it up and many options present themselves". However . . .

... in Dominica

For a developing nation, a polluted river may really be like the loss of a leg or two. In the Commonwealth of Dominica (not the Dominican Republic), a small island near Guadeloupe and Martinique in the Lesser Antilles, it's a rainforest rising to nearly 5000 feet and claiming to have 365 rivers. Their fish and crayfish, "freshwater lobsters", are scarce now because of pollution. They used to supply the protein needs for a population of 70,000.

So this sun-drenched island, lush with fruits and flowers, – anything will grow here – coffee, cocoa, bananas (the main export crop) must import frozen chickens from the U.S. However, the chickens are hormone-fed causing some Dominican children to have rather unfortunate developmental difficulties. All because the rivers are polluted – by pesticides sprayed on the banana plots, by land clearing on steep slopes causing erosion, and by blasting.

We suggested to two of their government ministers and a leading businessman that an independent study could estimate the costs of river cleanup/pollution prevention and calculate the economic benefits of restoring river water quality – and therefore fish populations. It would probably pay to clean it up.

Our effort to interest U.S. Aid for International Development failed. Perhaps it was bureaucratic sloth. Perhaps they thought why? And lose a customer for a U.S. chicken outfit? If we had been USAID we would have said "Let's do a little \$100,000 study that could really put that island, that little democracy of 25 years, on its feet. That could make them a much bigger customer for American exports." Which is perhaps what USAID is supposed to be about.

... in Benin

This former dictatorship once known as Dahomey lies between Niger and Togo on West Africa's coast. They export cotton and textiles. Their river empties into a large lagoon which has a channel to the ocean. Tidal rise and fall is very low so there is little flushing action at the estuary and lagoon.

Cotonou, at the river mouth, is Benin's biggest city at population 1 million. It has storm sewers but no sanitary ones and no treatment so all sewage and runoff goes as is into the river, lagoon and ocean. Add industrial waste and agricultural runoff and you can see why their fish n'existent

pas (French is their official language). So to piece out this absence of protein-bearing natural resource they once had, Benin buys frozen chickens from Europe.

While it would seem that a restored river could really help their public health and food independence and maybe make palatable their 125 miles of ocean beach, it would be costly. Countries wishing Benin well should have resource economists study the benefits and costs of restoring parts of the watershed. With the river so important to the national economy you'd think it would get first attention. Our own resource economics studies look at measuring impacts on local and regional economies.

For 11 years we have known the founder and CEO of Benin-Nature, the sole major environmental organization in Benin. His name is Toussaint Hinvi and he was recently here. He is the Green Party candidate for President of Benin, the next election being 2006. They are quite concerned about a proposed dam on the Mekrou River, so we talked (in English) to International Rivers Network, the upshot being that they are looking into the Mekrou situation. IRN is making big new dams an endangered species! Collectively maybe we can prevent another dam!

By the way, Mr Hinvi has founded a new group called Rivers Africa – rivers_africa@yahoo.fr, with help from us.

... in Gambia

Gambia is essentially a river corridor 24 miles wide and 200 miles long in West Africa, surrounded by Senegal on three sides and the Atlantic Ocean on the west. We have friends here who came from Gambia and are concerned about its condition.

Its river is tidal for some distance, which has increased greatly because of prolonged drought in the sub-Saharan region and because of upstream drafts. Since its soil is poor and much of the planting is in riverine swamps, as the river Gambia recedes there is less and less agricultural production. Add to this that they cannot grow rice where saltwater from the ocean intrudes.

There has been consideration of a dam – which could put the finishing touch to the hopes of this little country.

A Political Science professor friend has gone back for a visit and intends to bring back more information on the politics of the river, the dam and what the leaders are thinking. When we know more perhaps we can help them restore the river flow or better retain irrigation supplies. Maybe Rivers Africa (French) would be able to work with them, despite the difference in official languages (Gambia's is English). ♦

Local UP dates

Saving Minnow Creek



by Melanie A. White, Founder, Friends of Minnow Creek

Minnow Creek, located in Sandusky County, is a small urban stream emptying into the Sandusky River in downtown Fremont, Ohio. It has a highly modified stream flow regime and degraded habitat that is affected by the kinds of problems so characteristic of headwater streams in northwestern Ohio. In response to a proposed *ditch improvement* petition by the City of Fremont, Friends of Minnow Creek formed on August 3, 2001. At issue was localized flooding, aggravated in recent years by urban development and the diversion of storm sewers into the stream channel. The resulting increase in sedimentation forced the stream into adjacent yards in some areas.

Friends went to work to save Minnow Creek and were given one year to develop solutions which were low impact and environmentally sound. We began by clearing debris and sediment from the stream improving flow in the hot spots. Flooding improved immediately. We then began to assess and monitor the stream with various state and federal agencies providing technical assistance. Our studies revealed a culvert as a key source of channel degradation. It was discovered that the problems began when an oversized box culvert was installed some years ago. In the summer of 2002, the Boy Scouts came to our aid in improving the channel and riparian corridor. The past two years through wide community support, many partnerships with businesses and civic groups, and many man-hours, we have abated the flooding problems. This year proved to be a good test of our methods due to the higher than normal rainfall.

One of our goals was to preserve six acres of rare urban habitat. This habitat in the city has wet prairie, riparian corridor and forest. Again, the Boy Scouts came to our aid and on October 4th the dedication of Minnow Creek Preserve and Nature Walk was celebrated with over 100 individuals and city officials in attendance. This preserve is now open to the public and is being utilized by schools and other organizations to learn more about watersheds, water quality issues and non-point source pollution. Heidelberg University has also undertaken a ten-year study of the floral and fauna of the preserve.

Long term solutions include spring and fall clean-ups, continued monitoring, educating the community and landowners in Best Management Practices (BMP's),

land-use ordinances, and raising community awareness of the importance of Minnow Creek Watershed. We are in the process of formalizing long-term strategies and will seek a partnership with the City of Fremont in developing a watershed management plan.

Today, we are still faced with the pending final hearing for the *ditching* of Minnow Creek. While community support is broad and our methods have been successful, there is still opposition to save this stream. Friends of Minnow Creek are prepared to do whatever is necessary to save this last remaining stream in our city. Saving Minnow Creek however, will be a lifetime's work. ♦

Meet our New River Man!

John Halpin is our new river man at Rivers Unlimited. John started at Rivers at the end of July and has been busy working on all of the nuts and bolts stuff that nonprofits need to keep running. John keeps track of RU finances, coordinates mailings and membership, helps with fundraising, and is working with board members to keep our website up-to-date. "Rivers has an exciting history of advocacy on behalf of our Ohio waters," says John. "I'm glad to be part of it."

Before coming to Rivers, John worked on homelessness issues in Cincinnati, both as an organizer and as an outreach worker. John also works for the Coalition For a Humane Economy, a non-profit he helped found that addresses corporate globalization issues.

Call John at our office at (513) 761-4003 or e-mail him at john.halpin@riversunlimited.org. ♦

Channelization Destroys Fish and Wildlife

So readeth a 1970's bumper sticker.

But it destroys, limits and compromises other good things too. Like clean water, trees, property values, recreation, and fishing.

Quoting Oxbow River and Stream Restoration, Inc., “Thousands of miles of Ohio streams have been modified, *ditched* or channelized over the past 100 years for drainage purposes. This involves the deepening and straightening of stream channels and usually includes the complete removal of trees and substrate. The primary purpose of this *ditching* is to accommodate subsurface drainage or tile and convey water from point A to point B as quickly as possible.”

Thus what were once highly productive and diverse natural headwater stream systems are ditches, with shape and design to speed water off the fields – drainage and stormwater.

RU has written about channelization since we began in 1972. We've fought several wretched projects including Pine Creek, Tiffin River, Beaver Creek, Pike Run, the Hocking River, Nine Mile Creek, Greenville Creek, Stillwater River, - perhaps 20 more.

Channelization continues today under Ohio Department of Natural Resources (ODNR) guidance in the belief that dual channels in the geometric ditch, they alone, will result in better drainage (slightly increased flow capacity), more instream flow in dry weather and therefore more aquatic organisms instream.

Farmers and other landowners are taxed to cut and maintain these channels as “improvements” and maintenance roads alongside, which property ultimately falls into the public domain. Channelization has always been for the purpose of farm drainage. Farm productivity is important to us, legitimate and worthwhile.

But channelization is no longer legitimate or worthwhile to the American people. Four volumes of testimony in 1971 before the U.S. Congress informed us of the drastic damage to our natural resources of this outdated practice. Since those early days we have, in Ohio, moved only to do “one-sided” channelization, leaving trees on one side, preferably where their shade will cool the water. And only in the last 2 years has ODNR adopted the concept of dual channels, in a vacuum of ignorance as to what makes a natural, productive, stable, clean stream – maintenance-free, with capacity to discharge stormwater from a flood having the chance of occurrence of once in 5, 10, 25, 50, 100 years – whatever it's designed for.

We have known for years just what it takes for a stream to fulfill its potential to serve the public. Again, to Oxbow, “We can calculate and predict the meander pattern (width) of all stream channels within any given floodplain – natural channel design concepts (for) the channel to support life, filter and assimilate pollutants, and remain stable.”

These tools include Index of Biotic Integrity, Invertebrate Community Index, Qualitative Habitat Evaluation Index, Pfankuch Channel Stability Evaluation, USEPA Rapid Stream Assessment and many more. Streams are ecosystems and not just conveyance channels for water and sediment.

Rivers Unlimited proposes ... that it is simple common sense, cost effective, and demonstrably in the public interest to use modern restoration techniques to fix old ditches and to construct new drainage works. In other words, make natural streams out of ditches!

Modern restoration techniques will pay off because of reduced maintenance (if any at all) but will also permit the community to reap additional economic benefits from the stream, be it the farmer, landowner, village or township. We understand this - beginning with a 1985 scientific study by Dr. & Mrs. Karl Schurr on two branches of the Portage River, comparing only property values on a channelized versus a natural stream, which concluded that the natural stream residences averaged more than three times the appraised value of those on the channelized branch.

It is time for ODNR to become our state leader in modern drainage practices as well as restoration practices for all of Ohio's degraded (not fishable or swimmable) streams. It is also time for Ohio State University to update the agricultural

But channelization is no longer legitimate or worthwhile to the American people. Four volumes of testimony in 1971 before the U.S. Congress informed us of the drastic damage to our natural resources of this outdated practice.

What's Missing in the Clean Water Act?

We're thankful it built our sewage treatment plants with our taxes. They account for almost all of our water quality improvement since 1972.

We don't presume to know all that's missing in the Act. But we are confident that the pace of *restoring and maintaining* our water quality is slow because a central factor is missing in our studies and decision making. It is:

We do not know the value of water.

Therefore we assign it a value of zero.

The tug of war in Antidegradation is: Up to what point can we pollute a stream to accommodate *development*? If an industry or sewage treatment plant (preparing for a housing development) wants a pollution permit, it should be granted if there is a net social or economic benefit. *Social* means more jobs. *Economic* means more economic activity. Each implies that if the permit is refused, these benefits will not occur. In case of conflict our Ohio EPA Director will make the final decision. Since the value given water is zero we obviously cannot assess the benefits of a) making the water cleaner or b) the costs of it becoming more polluted. Therefore we always decide to grant the permit, as it always means, or seems to mean, at least one additional job or some additional economic activity.

If we look at assigning TMDLs (Total Maximum Daily Loads of pollutants, used to control farm and other runoff) allowed to enter the water, there is the same obstacle: The value of water is zero. In neither this case nor Antidegradation can there be a legitimate determination of how much, if any, additional pollution is in the public interest because the public interest in water quality is not measured or invoked. It is *jobs added* or *increased economic activity* (i.e. houses built) versus allowable pollution limits.

What's not considered is the public's interest in clean water. This shows up in a number of ways: First, what we are willing to pay for a percentage improvement in water quality. Or to put it another way, what we lose when water quality is degraded.

Rivers Unlimited sponsored an Ohio State University study of this willingness-to-pay for improved water quality. The study is authoritative. The Ohio public would pay a one-time charge of about \$90,000,000 to be assured that there was a 20% Available Pollutant Assimilative Capacity, above *safe* levels of pollution in their waters. Boaters and anglers would pay a one-time charge of \$30,000,000 for *higher quality water*.

The day-to-day Antidegradation and TMDL decisions do not take into account gains or losses in fish, fishing, other water-based recreation, river-area residential property

values, wildlife, quality-of-life values along a stream, public image attracting settlement or tourists – all affecting the stream for an indeterminate distance downstream of the pollution discharge.

Increased pollution incrementally increases economic losses of these assets. Cleanups increase economic gains, and social gains as well, not necessarily jobs, but quality of life, esthetic values and perhaps public health. We do not now quantify these benefits or these losses so we cannot make permitting decisions in the public interest. By leaving decisions to the Ohio EPA Director, the Antidegradation and TMDL decisions have no real integrity. Politics and ideology can creep in. Staff recommendations can be ignored.

We defy Ohio EPA to show that the collective permitting, in and of itself, has improved water quality in our streams. Some 700 permits to pollute are granted each year. Each says the discharges will degrade the receiving waters. We recognize that this *point-source* pollution is only 9% of the total in our waterways. The rest is runoff from farms, mines and other places where wastes may not go through treatment before entering streams.

We cannot serve the public interest unless we acknowledge the dollar value of our flowing waters. Besides willingness-to-pay, other indices of the value of our streams are:

- ▶ As a system, corridor and all, the importance of clean headwaters for aquatic populations, including endangered and threatened species.
- ▶ As a system, with the potential to be a State Scenic River, with the attendant social and economic advantages – which may be very large.
- ▶ Fishing, which is influenced by water quality. It puts a value on a stretch of river, about \$14,000 per river mile per year.
- ▶ Such that we should be concerned over the impact of pharmaceuticals with hormones, antibiotics, their metabolites, and pesticides on our aquatic organisms including fish, and their effect on our well waters, our children and ourselves.

With flowing waters, nationally and in Ohio we are behind the times in economics and equity. We can do better. We should require a comprehensive economic benefit/cost study that puts dollar value on water, before we degrade any of our streams. ♦

The Great Miami – An Ohio Scenic River?

The Great Miami is a beautiful river. Two of us paddled the entire 155-mile length in three days last October, saw every inch of it, and can attest to its beauty.

Its main source is Indian Lake and it flows through Sidney, Piqua, Troy, Dayton, Middletown and Hamilton until joining the Ohio River near Cleves and the Indiana line.

Interests in Butler and Hamilton Counties (its two lower counties) have requested the Ohio Department of Natural Resources to study and see if at least 10 miles of that section qualify to become a State Scenic River.

The Nationwide Rivers Inventory of the National Park Service lists those rivers that qualify technically to be members of the National Wild and Scenic Rivers System. The Great Miami does! The description:

- *River Segments* – Ohio River to Dayton, excluding Hamilton and Middletown areas, 56 miles; Dayton to Troy, 20 miles.
- *Outstandingly Remarkable Values* – Scenic, Recreational, Historic and Cultural
- *Narrative Description of Values* – Route of Buckeye and North Country Trails. Historical significance as “Highway of Indians and Pioneers”. Scenic stream, located near historic Miami and Erie Canal. Indian mounds scattered along stream. Popular fishing river. Area near mouth used extensively for duck hunting.

In fact, today, the National Park Service (NPS) might find that much of the section of the river from Troy to Russells Point, another 79 miles, also qualifies. Much time has passed since NPS’ initial assessment. Much of the river has recovered from its industrial history although there remains a lot of bare, treeless channelization in the name of flood damage reduction. And more of the Hamilton and Middletown areas may now be more suitable.

Ohio has its own requirements for State rivers, and we could write a hundred pages on all the complexities. “There’s many a slip twixt cup and lip”. Forces may prevent designation in the short run. But it is distinctly in the public interest that the Great Miami collect this modest layer of protection from developments that would limit its potential to serve park and recreational uses including fishing, fish, birds and wildlife, property values along and near the river, quiet and quality of life, public image and as an attractant to tourism.

State designation could lead to National designation, another layer of protection and recognition. Designation has



Channelized northwestern Ohio stream



Natural stretch of the Great Miami

helped bring millions of dollars of national, state and local public moneys and private gifts and bequests to the Little Miami, a nearby State and National river.

Players thus far have been Colerain Township of Hamilton County (with a population of 60,000), Friends of the Great Miami (founded by Rivers Unlimited in 1999), The Land Conservancy of Hamilton County, and Concerned Citizens of Western Hamilton County. Their expression is “With the great Miami River as the centerpiece, we envision Butler and Western Hamilton Counties as a major recreational and heritage tourism destination”.

Support comes also from the Cincinnati Enquirer with a very favorable article Dec.20 and the Cincinnati Post Jan.1, which asks that a regional initiative “embrace the fledgling effort to give the Great Miami River the same type of protection as the Little Miami River enjoys. And tie both river corridors into the fine work being done in Ohio and Northern Kentucky to enhance the recreational and economic opportunities along the Ohio River”. ♦

Join Our Effort!

Help Rivers Unlimited protect Ohio's greatest resources.

EASY MEMBERSHIP! COMPLETE STEPS 1, 2, 3, CLIP AND MAIL.

Yes

I do want to help Rivers Unlimited protect the 61,000 miles of rivers and streams in Ohio from pollutants and other forms of degradation. Use my gift to help the nation's oldest statewide river protection organization continue to protect and restore these scenic waterways which are vital to the health, economy and quality of life in our state.

Here is my tax-deductible contribution of:

1

- \$35 Basic Membership
- \$50 Family or Group Membership
- \$100 River Sustainer
- \$250 River Steward
- \$___ Other

2

Please make your check payable to *Rivers Unlimited* and mail to:

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

E-MAIL _____

3

Rivers Unlimited
515 Wyoming Avenue
Cincinnati, OH
45215

Channelization

(cont. from page 5)

drainage practices it teaches and accept funding to come into accord with what is known and done in more advanced agencies. OSU is a leader in River Resource Economics. Rivers Unlimited has sponsored six years of studies at OSU in this field. OSU should become a leader in drainage technology.

It is impossible today to justify continuing channelization on any basis – economic, water quality, adequate drainage or “flood control”. No channel project today can stand up to a rigorous resource economic analysis, nor even a satisfactory benefit/cost analysis. The people of Ohio have every right to get the most out of their waterways – we pay for their maintenance, we pay for their construction, we pay for the administrative agencies, our waters are held in the public trust by them - we are overdue for change! ♦

Earth Shares of Ohio helped fund this Rivers Quarterly.

This newsletter is printed on recycled paper with soy ink.



515 Wyoming Avenue
Cincinnati, Ohio 45215

RIVERS UNLIMITED



Nonprofit
Organization
U.S. Postage
PAID
Cincinnati, OH
Permit No. 9562