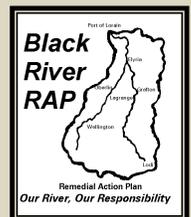


# 2008 Annual Report

## Black River Remedial Action Plan



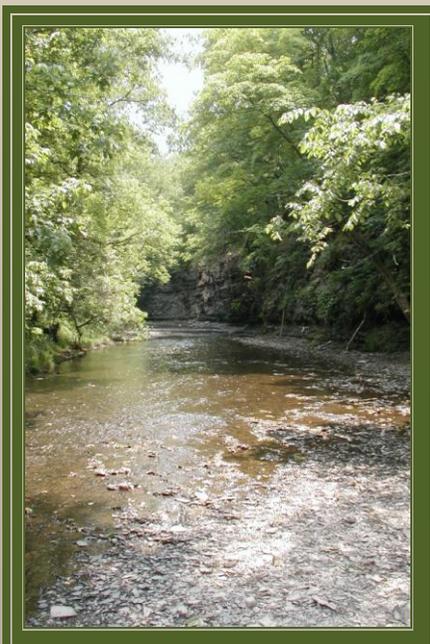
Mainstem near Days Dam



The purpose of this Annual Report is to inform the watershed community on the progress made by the Black River RAP in its efforts to restore impairments to beneficial uses in the Black River watershed Area of Concern.

The Annual Report provides background information on many of the projects being undertaken by the RAP and its members.

If you would like more information on any of the topics covered in this Annual Report or would like to join the effort to restore the Black River, please contact any of the RAP Coordinating Committee members that are referenced at the end of this report.



French Creek



The East Branch Falls

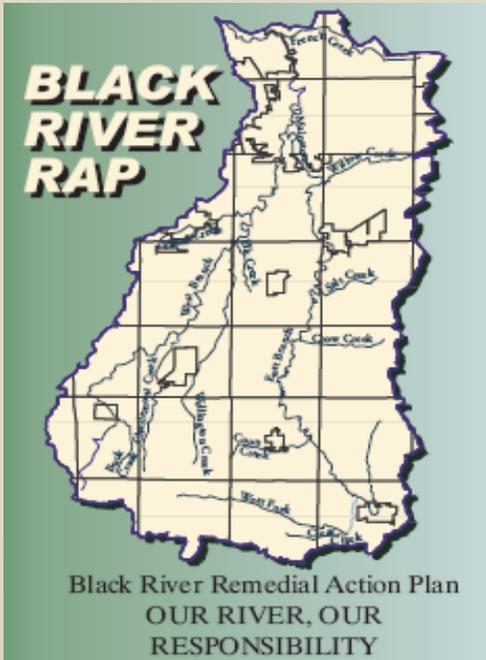
### **Beneficial Use Impairments (BUIs)**

The Great Lakes Water Quality Agreement, as amended, calls for remedial action plans (RAPs) to be developed to restore and protect any of 14 beneficial uses in Areas of Concern (AOC). An impaired beneficial use means a change in the chemical, physical or biological integrity of the AOC sufficient to cause any of the following:

1. **Restrictions on fish and wildlife consumption**
2. Tainting of fish and wildlife flavor
3. **Degradation of fish or wildlife populations**
4. Fish tumors or other deformities
5. Bird or animal deformities or reproductive problems
6. **Degradation of benthos** (Not Impaired in the East Branch)
7. **Restrictions on dredging activities**
8. **Eutrophication or undesirable algae**
9. Restrictions of drinking water consumption or taste and odor problems
10. **Beach closings (recreational use)**
11. **Degradation of aesthetics**
12. Added costs to agriculture or industry
13. Degradation of phytoplankton or zooplankton populations
14. **Loss of fish and wildlife habitat**

**Bold** Impaired in the Black River AOC  
Underlined In Recovery Phase

# AOC conditions, in a nutshell



*Prepared by:*

**Black River Remedial Action Plan  
Coordinating Committee**

**Ken Pearce, Chair**  
Lorain County General Health  
District

**Northeast Ohio Areawide  
Coordinating Agency**  
Black River RAP Secretariat

**Anne Marie Vincent**  
U.S. EPA RAP Liaison

**Ted Conlin**  
Ohio EPA RAP Coordinator

## **Environmental Conditions**

The communities of fish and other aquatic life are improving throughout many areas of the watershed.

Except for localized elevated counts of coliform bacteria (see *Improvements* article below), water quality is generally meeting Ohio Water Quality Standards. There is a major concern for the amount of sediment and nutrient getting to the river system coming mostly from farmland and developing areas.

Although polynuclear aromatic hydrocarbon (PAH) levels in the lower river sediment have improved and are nearing levels expected for any urban setting, the sediments in the mainstem still contain elevated levels of metals and some organic compounds and cannot be openly disposed in Lake Erie.

Great Blue Heron numbers continue to increase in the lower mainstem. The 2007 sighting of a river otter in the French Creek basin is seen as a positive sign for improving habitat conditions.

## **Causes of Impairment**

The loss and degradation of streamside vegetation continues to impact fish and wildlife communities and facilitates stream bank erosion. High sediment loads continue to impact fish and benthic communities and decrease the aesthetics of the river system.

The amount of litter in the streams is degrading the aesthetic value of the resource.

Poorly maintained and failing home sewage treatment systems are a major source of coliform bacteria in the rural upper watershed areas. Bacteria levels in the lower East Branch and mainstem areas show signs of improvement.

Rapidly developing areas are increasing the imperviousness of the watershed and leading to flashier stream flows and erosion of stream banks.

# MESSAGE FROM THE CHAIR

By Ken Pearce, Chairman of the Black River RAP Coordinating Committee and Commissioner of the Lorain County General Health District

This year has been a year of set-ups and starts. Some initiatives are on-going but many new projects are just getting started in the watershed. The Total Maximum Daily Load (TMDL) Report has been written and many stakeholders in the watershed are gearing up to start acting on the remedial proposals from that report. In a nutshell, the TMDL Report offered four important measures to improve conditions in the watershed and AOC: restoring stream habitat, eliminating bacteria problems, reducing impacts from permitted discharges and managing and improving both the quality and quantity of storm water runoff.

For controlling bacteria problems, many of the recommendations included tasks under local health district regulations including oversight of septic waste haulers, identification and repair of failing systems, elimination of on-site systems, and education on home sewage treatment system maintenance. The Lorain County General Health District has been gearing up to tackle the home sewage proposals on the Black River TMDL. The health district partnered with the Black River RAP and Ohio EPA to complete a video dealing with home sewage that will be given to home sewage system owners at the time of system inspection by health district personnel.

The Lorain and Medina Soil and Water Conservation Districts developed an agricultural non-point source plan to address runoff pollution from agricultural lands. Their plan included establishing grass and/or tree filter strips on 50% of the agricultural fields within 10 years and encouraging the use of permanent conservation practices as the primary management practices to control erosion and improve water quality.

The Black River RAP set up and conducted an outreach program to the many county and watershed representatives of the Lorain County Community Alliance. This was a major undertaking for the RAP Committee and included a video presentation as well as speeches by RAP members Nancy Funni of Lorain Soil and Water Conservation District, Karl Schneider of Natural Resources Conservation Services, Dan Gouch, the Black River Watershed Coordinator, and Anne Marie Vincent of the U.S. EPA.

The Black River RAP has secured funding from the U.S. EPA's Great Lakes National Program Office to produce an innovative means of joining needed economic development in the City of Lorain with the environmental needs of the Black River mainstem. This effort is expected to produce a report that city planners and other stakeholders can use to benefit both the city's economic situation while improving and protecting important natural resources.

Of local interest, the Black River RAP has been working to set up a local RAP office where citizens and other stakeholders can learn more about the issues concerning their watershed. The new office will be located in the offices of the Lorain County General Health District and will open in 2009 with a new and much improved Black River RAP website. The new RAP office staff will organize outreach efforts as well as perform as the Black River RAP secretary.

I am encouraged by these efforts and thank all who were involved. I look forward to the celebration of future improvements in our watershed.

## NEW RAP OFFICE IN THE WATERSHED



In 2009, the Black River RAP office will be located in the watershed. The office will be situated in and staffed by the Lorain County General Health District.

The initial project of the new office will be the new Black River RAP website. The staff at the new RAP office will take over the secretarial duties for the RAP Committee as well as serve as an initial point of contact for

local stakeholders. This will free valuable time for NOACA, who has served as RAP Secretariat from the beginning.

The Black River RAP Coordinating Committee thanks NOACA for their many years of service to the Committee and looks forward to continued support and guidance from NOACA in the future.

Please look for future updates by the RAP Committee from this new Black River RAP office and return to the web page ([www.BlackRiverRAP.com](http://www.BlackRiverRAP.com)) to learn about the Black River and to see how you can get involved in restoring this valuable natural resource.

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## 2008 WATERSHED COORDINATOR'S REPORT

The Black River Watershed Coordinator position is funded partially through an Ohio Department of Natural Resources grant and is housed in the Lorain County Community Development Department. A new Black River Watershed Coordinator, Dan Gouch, was named in November 2007. At that time the position had been open for nearly 7 months; there was a considerable backlog of work that had accrued; therefore, 2008 was a very busy year.

The primary job function of the Watershed Coordinator is to facilitate the drafting of a Watershed Action Plan (WAP) that outlines the current state of the watershed, identifies areas of impairment and their potential causes and lays the foundation for activities designed at correcting the causes of impairment.

The planning area given to the Black River Watershed Coordinator includes the entire West Branch Black River, as well as the French Creek – the largest tributary to the

mainstem Black River. There are very different stressors acting on these two sub-watersheds. The French Creek is primarily located in extreme northeastern Lorain County and is considered by OEPA as a “Rapidly Developing Watershed”. Most of the potential challenges here include those associated with urbanization. The two most rapidly growing communities in Lorain County are located within the French Creek subwatershed – Avon and North Ridgeville. Land use in the West Branch Black River is, for the most part, agricultural-based.

The primary identified problem for both of these subwatersheds is the proliferation of non-point source pollutants. This would include excess sedimentation and nutrient loading from agricultural run-off in the West Branch and excess sediment and unknown toxicity from rapid development of previously agricultural or forested land in the French Creek. Both sub-watersheds also suffer from

highly elevated fecal bacteria levels, likely the result of large-scale septic system failure.

The difference in land-use and prevailing public attitudes between the two sub-watersheds creates a somewhat unique planning and implementation challenge. To address these varied issues, Mr. Gouch has dealt with the two areas quite separately. In order to facilitate dialog amongst the various stakeholders in the region, two distinct local committees have been established - the French Creek Watershed Committee and the West Branch Watershed Committee. Each group is guided toward the issues that are most prevalent in each watershed respectively. During 2008, each group met with the Watershed Coordinator no fewer than 6 times. Constructive dialog has led to an acceleration of the WAP process in each sub-watershed.

Mr. Gouch has also been actively involved with stormwater management planning in Lorain County. He feels strongly that this issue is intimately related to many of the other identified impairments to the Black River. Working closely with the Lorain SWCD, he helped draft Erosion and Sediment Control regulations which were adopted by the Lorain County Commissioners on June 28, 2008. These regulations, properly enforced, will help immensely in dealing with new development within the Black River watershed.

Mr. Gouch also secured the assistance of the Ohio Lake Erie Commission on behalf of Eaton Township in order to locally draft a set of Riparian and Wetland setback regulations. The initial draft of these regulations has been completed and public hearings regarding their adoption are set to begin in early February 2009. Two other local municipalities are also strongly considering adopting similar ordinances as a result. It is hoped that these regulations will be used as a local model for other nearby communities.

Perhaps the most exciting news from 2008 was the start of the largest locally based volunteer water quality monitoring project in

the history of the Black River watershed. The project, French Creek Volunteer Water Monitoring Initiative (FCVMI), began on November 6, 2008. Mr. Gouch was able to secure water sample testing from French Creek WWTP as an in-kind contribution from the City of North Ridgeville. Over 30 samples have been collected and analyzed from a total of 12 reference locations throughout the French Creek watershed.

Mr. Gouch worked closely with several local communities and institutions in the areas of public awareness and involvement. He has given presentations to such groups as the Lorain County Township Trustees Association, Eaton Township Stormwater Committee, North Ridgeville Flood and Drainage Board, and North Ridgeville Master Planning Committee. Presentation topics ranged from stormwater management, balanced growth principles, basic geology of the watershed, and highly technical stream energy dynamics. All of these were meant to increase the awareness of both the general public as well as elected officials to the complexities of watershed management.

2009 promises to be the most exciting year for the Black River Watershed Project and the Black River RAP Sub-watershed Initiative. Plans are being finalized that will include the installation of a municipal-sized rain garden on the grounds of the Lorain SWCD. Mr. Gouch plans to use this project as a demonstration project for local elected officials to impress upon them the benefits of a more non-structural approach to run-off and rainwater issues. There are plans for several rain barrel workshops aimed at targeted audiences throughout the watershed. The FCVMI will expand to include the West Branch and tributaries in the spring. The Black River WAP will be completed and submitted to ODNR for endorsement by the Ohio EPA.

Since assuming his position, Mr. Gouch has made it a point to be completely accessible and available to the public. He feels this is the best way to effectively perform his job duties.

He has been and continues to be very passionate about his work.

Want to find out more? You can contact him via e-mail at [dgouch@loraincounty.us](mailto:dgouch@loraincounty.us); call him directly at 440.328.2336; or visit [www.blackriverwatershed.org](http://www.blackriverwatershed.org)

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## MAKING THE SWITCH

Former Black River RAP member, Craig Limpach, and his company Genius Loci, Inc. have received funding that promises to map pre-European settlement conditions in the Black River watershed, as well as current land use practices. He plans to show how the current practices are limiting available ecological services leading to many of the degraded environmental conditions seen in the AOC. Mr. Limpach's study will also propose practical alternative solutions for a sustainable model of ecological/economic development. The alternative solutions will complement the ecological/economic master plan being developed for the mainstem (see mainstem article below).

The report will show how Lorain County functions ecologically. Ignoring natural functions are costly and by continuing to impose current land use practices in areas that are not ecologically receptive leads to a cheapening of the quality of life and the many other social and economic problems that are confronting the area. The report hopes to offer sustainable solutions that will create new industries and lessen the destructive impact of current practices on the environment. It will explore the connections between economics and ecology and forge new strategies that support both.



Switch Grass Photograph (Courtesy Missouri DNR)

One promising solution that may be offered by the report is the development of native prairies in vacant or under-producing crop lands. By developing prairies with the perennial native Ohio species switch grass (*Panicum virgatum*), new biofuel production industries may arise. Switch grass can grow on marginal land and needs no fertilizers or pesticides. It can be harvested twice a year and the harvest can offer up to a 450% return on the energy production investment. In addition, switch grass prairies offer excellent habitat areas for small mammals and birds.

# LOWER BLACK RIVER ECOLOGICAL RESTORATION MASTER PLAN



In 2008, the Great Lakes National Program Office (GLNPO) of the U.S. EPA hired URS Corporation to develop an ecological restoration master plan for the lower Black River mainstem in Lorain. URS has a long history with the Black River. It was URS who partnered with former Ohio EPA employee and fish expert, Roger Thoma, to plan and construct the highly successful fish habitat shelf at the Black River Landing site. URS has again partnered with Mr. Thoma to develop the master plan for the Black River's lower 6 miles.

This plan is not solely an environmental restoration and protection plan. The plan is intended to seek a way of restoring and protecting the natural resources while much

needed economic development and re-growth occurs in the City of Lorain. The master plan will be grounded in the principles of stakeholder collaboration and active participation in the process. The vision and goals will be defined by a diverse array of environmental specialists, federal and state agencies, local citizens and interest groups, the City of Lorain and the Black River RAP.

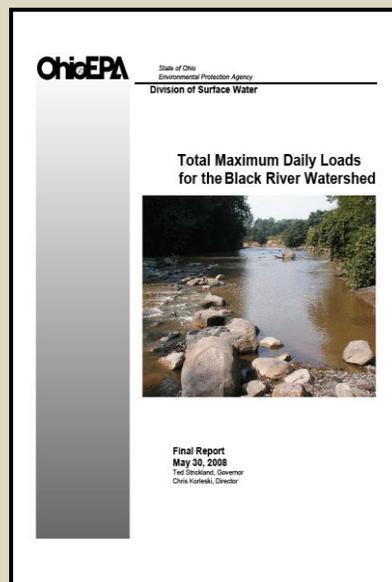
During 2008, URS began collecting pertinent data and Roger Thoma mapped the riverine and near riverbank habitat. Development of the plan is expected to take about 12 to 18 months. As part of the process, workshops will be scheduled where the public and private stakeholders of the lower river have an opportunity to provide input and comment.

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## The TMDL IS APPROVED BY U.S.EPA

Required by the Clean Water Act, a Total Maximum Daily Load (TMDL) Report identifies and evaluates water quality problems in impaired water bodies and proposes solutions to bring those water bodies into attainment with water quality standards. A TMDL Report for the Black River watershed was written by the Ohio EPA and that report was approved by the U.S. EPA on August 20, 2008.

Studies conducted by the Ohio EPA in 1996, 1997 and 2001 for the TMDL Report showed degraded water quality and stream habitat.



The Ohio EPA found that point source pollution, runoff from urban, developing and agricultural lands; under maintained and/or failing home sewage treatment systems (HSTS); and poor stream land management are degrading many stream segments in the Black River watershed.

Of the 81 sites monitored, the Ohio EPA found that 38% of the sites were not meeting water quality goals and 30% only partially attained the goals. Only 37% of the sites fully attained the state's goals for water quality.

The TMDL Report proposed four main ways to restore our Black River watershed. These include:

- Restoring stream habitat in agricultural areas by establishing and protecting stream and wetland buffers, constructing over-wide or two stage drainage ditches with natural channel design and restoring eroding riverbanks and reconnecting streams to floodplains
- Reduce bacteria contamination by eliminating combined sewer overflows and repairing or

replacing HSTS systems or connecting hot spot areas to municipal treatment systems

- Reduce impacts from permitted dischargers, and
- Better managing storm water quantity and quality from urban and developing areas

Some remedial actions are currently underway and the RAP Committee is working on some but many more need to be started. The Black River TMDL Report can be found on the web at: [www.epa.state.oh.us/dsw/tmdl/BlackRiverTMDL.html](http://www.epa.state.oh.us/dsw/tmdl/BlackRiverTMDL.html)

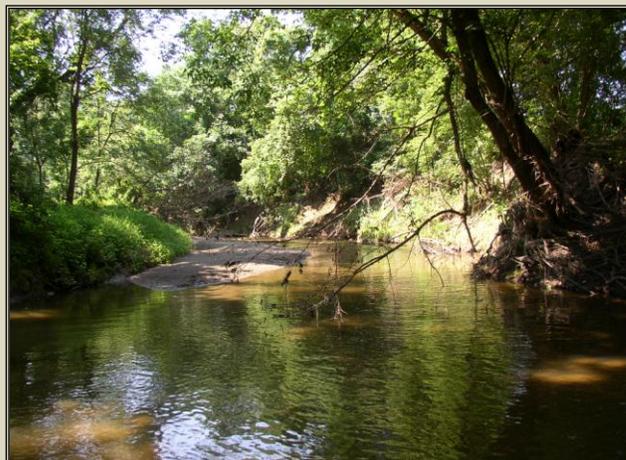
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## IMPROVEMENTS CONTINUE IN THE WATERSHED

As documented by the Ohio EPA, portions of the Black River are continuing to show improvement. As required by the Clean Water Act, Ohio EPA must develop a report that indicates the general condition of Ohio's waters and identifies waters that are not meeting water quality standards every two years. These standards represent a level of water quality that protects, maintains and improves the quality of the nation's surface waters. Every state is required to develop water quality standards.

In Ohio, the report is called the Integrated Water Quality Monitoring and Assessment Report, or IR. This IR report includes a list of impaired waters in the state that may require the development of a TMDL in order to meet water quality standards. This report is how the Black River was identified as an impaired water system and one that needed a TMDL. (See article on the Black River TMDL)

In the last four IR reports, all four Watershed Assessment Units (WAU) in the Black River watershed were found to be impaired for the



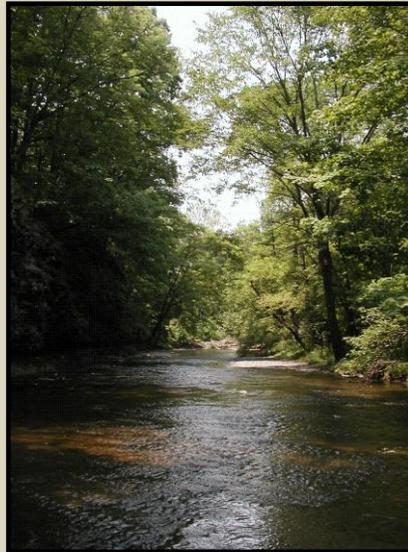
West Fork of the East Branch

aquatic life use and fish tissue assessments. The aquatic life use assessment looks at biological data of the water system as being able to support healthy and reproducing communities of fish and benthic macro-invertebrates. The fish tissue assessment looks at the contaminants in the resident fish populations of the water system. This determines the suitability of the sport fish in a watershed as a source of food for humans.

WAU	Recreational Use	Public Water Supply	Fish Tissue
Upper East Branch	Impaired, but data needs updating	Not Applicable, no public drinking water supplies	Impaired
Lower East Branch	Not Impaired *	Not Applicable, no public drinking water supplies	Impaired
West Branch	Impaired	Unknown, insufficient data, but impairment unlikely	Impaired
Black River Mainstem	Not Impaired *	Not Applicable, no public drinking water supplies	Impaired

(From the 2008 Integrated Water Quality Assessment Report; [www.epa.state.oh.us/dsw/tmdl/2008IntReport/2008OhioIntReport.html](http://www.epa.state.oh.us/dsw/tmdl/2008IntReport/2008OhioIntReport.html))  
 \* Previously listed as Impaired

The upper East Branch remains impaired for recreational use. The impaired status remains because the state only had older data to review in its assessment. A new IR report is being prepared now for release in 2010 and Black River RAP members hope to begin a sampling program during the spring of 2009 in the upper East branch WAU. The new data will be used in the new assessment of this watershed.



The Black River

This is great news for citizens of the Black River watershed and the RAP. It shows the watershed/AOC is continuing to improve. Before the Black River RAP Committee can apply to the U.S. EPA for a delisting of the AOC Beneficial Use Impairment in these areas, more data must be collected over the next couple of years, and that new data must continue to show improvement.

In 2009, additional samples are slated to be collected from the Upper East Branch in order to update the data from this WAU.

In a change from the three previous IR reports, the 2008 report found that the bacteria counts in the Black River mainstem and the Lower East Branch WAUs were sufficiently reduced and that the state's prior impaired listings for recreational use in these areas are no longer supported.

The Black River RAP Committee will closely monitor any new data as it becomes available.

By Integrated Report assessment units, below is what the 2008 Integrated Report found with respect to aquatic life:

Black River Watershed Aquatic Life Use Attainment Status by Watershed Assessment Units			
Assessment Unit	% in Full Attainment	% in Partial Attainment	% in Non-Attainment
Mainstem (w/French Creek)	12	30	58
West Branch	18	51	31
Upper East Branch	68	32	0
Lower East Branch	50	8	42

# The Black River



**It is our river. It is our responsibility.**

# Black River RAP Coordinating Committee Members

## Local Jurisdictions

Lorain County General Health District  
**Ken Pearce**, Chairman, Black River RAP

Lorain County Board of Commissioners  
**Commissioner Betty Blair**

Lorain County Community Development Dept.  
**Dan Gouch**, Local Watershed Coordinator

City of North Ridgeville  
**Cathy Becker**

Lorain County Metro Parks  
**Dan Martin**

NOACA  
**Mary Wells**  
**Andy Vidra**

Lorain Soil & Water Conservation District  
**Nancy Funni**

Medina Soil & Water Conservation District  
**Jeff VanLoon**

City of Elyria  
**Terry Korzan**

City of Lorain  
**Hon. Tony Krasienko, Mayor**

## Citizen Representatives

**Cheryl Wolfe-Cragin**

**Charles “Eddie” Herdendorf**

**Brad Masi**

**Jennifer Wasilk**

## State/Federal Agencies

USDA/Natural Resources Conservation District  
**Karl Schneider**

U.S. EPA  
**Anne Marie Vincent**, RAP Liaison

Ohio EPA  
**Ted Conlin**, RAP Coordinator

OSU Sea Grant  
**David Kelch**

## Industry/Commercial Representatives

Lorain Growth Corporation  
**Michael Challender**

Lorain County Port Authority  
**Rick Novak**

Lorain County Farm Bureau

Lorain County Community Alliance  
**Virginia Haynes**

Columbia Gas Transmission  
**Tim Keslar**

National Gypsum  
**Matt May**

# Black River RAP Contacts

## **United States Environmental Protection Agency**

Region V – Cleveland Office  
25089 Center Ridge Road  
Westlake, OH 44145  
440-250-1720

## **Ohio Environmental Protection Agency**

Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
330-963-1200

## **Northeast Ohio Areawide Coordinating Agency**

1299 Superior Avenue  
Cleveland, OH 44114  
216-241-2414

## **Lorain County General Health District**

9880 South Murray Ridge Road  
Elyria, OH 44035  
440-322-6367

## **Lorain Soil & Water Conservation District**

42110 Russia Road  
Elyria, OH 44035  
440-326-5800

## **Lorain County Community Development Department**

226 Middle Avenue  
Elyria, OH 44035  
440-328-2322

## **Lorain County Metro Parks**

12882 Diagonal Road  
LaGrange, OH 44050  
440-458-5121

## **Medina Soil & Water Conservation District**

6090 Wedgewood Road  
Medina, OH 44256  
330-722-2628, Ext. 3