

Appendix I. Cuyahoga River Community Planning Organization (CRCPO) & Cuyahoga River Remedial Action Plan (RAP)



The CRCPO and the RAP are two organizations working together as one. The CRCPO is the non-profit, community-based organization, which provides financial support for the Cuyahoga River Remedial Action Plan (RAP). The Cuyahoga River RAP *"promotes renovation and preservation of the beneficial uses of the Lower Cuyahoga River"*. Additional information can be found on the website at: www.CuyahogaRiverRAP.org

Cuyahoga RAP 2003-2004 Work Program Activities Benefitting the TMDL Area

Organizational, Educational and Technical Advisory Services

Production and distribution of tributary watershed-based maps and related data of important geographic and demographic information for community use and education. This information has been produced in a series of:

- Tributary-based watershed maps, and
- Supporting tables of land use and impervious surface percentages.
- Information based on our 15 years of extensive technical and scientific research, on the sources and causes of problems in the river and tributary streams.
- Assistance in developing locally focused remedial actions
- Support for the formation of local watershed stewardship organizations

Planning and Support for Implementation of Remediation and Renovation Projects

- Habitat restoration
- Riparian corridor restoration and repair
- Special cleanup & local action programs
- Storm water Best Management Practices (BMPs)

Special Programs for Local Officials

- Watershed-based tools for planning
- Guidance for watershed protection measures
- Public education and citizen involvement programs
- Grant sponsorship
- Continuing series of educational workshops and forums for public officials and local citizens
- Special assistance for federally mandated NPDES Storm Water Management Permits and TMDL (Total Maximum Daily Load) regulations

The Cuyahoga River RAP is a proven resource for bringing together technical knowledge, public interest groups, and local legislative bodies in a supportive setting to develop and implement effective local and regional solutions for renovating the Lower Cuyahoga River.

Education and Outreach Programs

Over the past fifteen years the RAP has conducted or sponsored extensive technical research regarding the condition of the Cuyahoga River and the impairments to its beneficial uses. The RAP is a well-known resource regarding the causes and restorative measures for the Cuyahoga River.

For each tributary watershed in the lower Cuyahoga, the RAP assembled GIS and Landsat information of the geographic and demographic attributes that contribute to the current and future environmental quality in each of the watersheds.

In 2001, the Cuyahoga Valley National Park conducted a detailed wetland inventory of their parklands. In 2002, Metroparks Serving Summit County completed the first phase of a wetland inventory of Summit County. Previously, the Cleveland Metroparks had completed an extensive wetland inventory. The RAP received a grant from the Lake Erie Protection Fund in 2002 to conduct a wetland inventory in the remaining portion of the lower Cuyahoga River Watershed in Cuyahoga County. This project, completed in 2003, has resulted in a seamless series of wetland maps for the entire lower Cuyahoga River Watershed.

These materials are being made available to help local decision-makers and civic interests understand the benefits of taking a regional watershed-based approach to riparian zones, wetlands, and storm water management. The RAP believes that information and knowledge are the keys to local involvement and action. By expanding awareness and understanding at the local level we expect to increase local watershed stewardship and the related stream remediation and protection projects that can be developed.

Public Outreach and Involvement

The RAP is well known for its leadership in the formation and incubation of watershed organizations and committees. It has proven expertise to organize local public outreach and education programs. The RAP is comprised of four staff positions: Executive Director, Watershed Planner, Membership Support Coordinator and Community Involvement Coordinator.

One goal of the RAP has been to educate and involve citizens and local elected officials on a wide range of watershed stewardship topics and practices, such as riparian and wetland protection, stream restoration, storm water best management practices, and use of local ordinances. They have developed and assisted in the development of a variety of educational brochures, booklets, and fact sheets for distribution, including the award winning "*Life at the Water's Edge*" booklet, which has been distributed to over 7,000 watershed residents, with plans for distributing 20,000 more copies within the Cuyahoga River Watershed.

Additionally, the RAP has available a range of local action programs such as:

- Storm Drain Stenciling (over 15,000 drains stenciled to date)
- Stream Stewardship Patch programs for students, scouts, and civic groups
- Stream Monitoring training sessions and kits

Cuyahoga RAP Partnering & Projects

In 2002 and 2003, the RAP and its partners have worked to develop and support tributary watershed groups in:

- Yellow Creek
- West Creek (West Creek Preservation Committee)
- Tinkers Creek (Pond Brook Watershed Initiative)
- Mud Brook (Mud Brook Consortium) and
- Chippewa Creek.

This work will continue in the future, with a goal to establish tributary watershed councils or groups with effective local environmental protection ordinances, storm water management strategies, educational programs, and green space/riparian preservation mechanisms.

Habitat Restoration Projects

The Cuyahoga River RAP and its partners have restored over 3 miles of stream bank over the past 10 years and are currently working on further restoration projects. Numerous riparian habitat restoration and remediation projects using soil bioengineering techniques have been developed and implemented by the RAP and its partners. RAP sponsored projects have been completed or are occurring in:

- Mill Creek in Highland Hills
- A \$50,000 grant from USEPA, GLNPO will fund a second phase of the Highland Hills stream restoration project in 2003, with oversight provided by the RAP and its partners.
- Additional restoration work is being undertaken in the Mill Creek Watershed by the Northeast Ohio Regional Sewer District.
- West Creek
- Seven Hills
- A wetland restoration project was completed in 2002 along West Creek by the West Creek Preservation Committee, Cuyahoga Community College and other RAP partners.
- Tinkers Creek
- Furnace Run
- Sagamore Creek (led by Cuyahoga SWCD & NRCS)
- Chevy Branch of Big Creek
- Additional restoration work is being undertaken in the Chevy Branch by the Northeast Ohio Regional Sewer District.
- Pond Brook (tributary to Tinkers Creek) Stream side Vegetation. Partners in the project are: Pond Brook Watershed Initiative, Ohio Lake Management Society (OLMS), Aurora Shores Homeowners Association, and the Aurora Lake Association, along with the Ohio State University (OSU) Extension, the Cuyahoga Remedial Action Plan (RAP), the Soil and Water Conservation District (SWCD) offices of Cuyahoga, Portage, and Summit Counties, and the Ohio Agricultural Research and Development Center (OARDC).
- The RAP along with West Creek Preservation Committee, City of Parma, Cuyahoga County Board of Health, Parma City Schools, will be constructing additional wetlands and restoring stream bank along a tributary to Big Creek on the Stearns Farm Park property in 2003, thanks to grant support by the RAP and USEPA.

The RAP held a series of educational workshops on riparian protection and restoration in 1998 and 2001 for area stakeholders that has led to the identification and implementation of these and other projects. The RAP and its partner organizations will continue to identify and implement future stream protection and restoration projects, notably in the Pond Brook preserve

recently acquired by Metroparks Serving Summit County.

Wetlands Protection Projects

The Cuyahoga River RAP held a workshop on Legal Issues and Economic Benefits of Wetland Protection for in August of 2000 to educate local officials about regulatory measures such as local ordinances that can be utilized to protect these resources. As previously stated, the RAP has completed a field inventory of wetlands in the Cuyahoga County portion of the watershed during 2003. This will complement similar inventories recently completed by the Cleveland Metroparks, the Cuyahoga Valley National Park and Metroparks Serving Summit County. These inventories identify wetland sites in need of particular protection or restoration measures. The Ohio EPA will be conducting more detailed studies and categorizing wetlands throughout the entire Cuyahoga River Watershed in 2003-2004 under a grant from USEPA. This information will be shared by the RAP with regulatory authorities and local officials to aid in development of wetland protection ordinances, models of which have been developed and are being distributed by the RAP and its partner organizations.

River Navigator to the Cuyahoga American Heritage River Program

The CRCPO has been designated by USFS to assume the duties of River Navigator as the principle resource, point of contact and funding for the **American Heritage River Initiative**. The CRCPO coordinates efforts with our AHR partners to develop and implement community-based projects for the entire Cuyahoga River Watershed.

The Cuyahoga American Heritage Rivers initiative is lead by a core group of organizations that are collectively called the **Cuyahoga American Heritage River Partners**. The Partners consist of representatives from:

- The Cuyahoga River Remedial Action Plan (RAP)
- Upper Cuyahoga River Watershed Task Force
- Ohio & Erie Canal Association
- Northeast Ohio Area-wide Coordinating Agency (NOACA)
- Northeast Ohio Four County Regional Planning and Development Organization (NEFCO)

The Cuyahoga American Heritage River: *"Promoting Healthy Streams for Healthy Communities"*

- Restore the environmental health of the Cuyahoga River
- Revitalize riverfront communities
- Promote sustainable watershed development
- Increase recreational opportunities
- Encourage community-based conservation

Scientific Outreach and Applications using Remote Sensing (SOARS)

In 2003, the CRCPO and the AHR program partnered with NASA, through OAI (Ohio Aeronautical Institute), and Ohio View to sponsor the SOARS program. The SOARS research project, which utilized NASA satellite imagery, digital elevation models, and GIS (Geographic Information Systems), was conducted at Kent State University.

The project, which focused on the entire Cuyahoga River Watershed, studied urban sprawl over a 25-year period, as well as its relationship to the loss of forest and farmland, the effects on river and lake temperatures, the impact on water clarity, and the acceleration of impervious surfaces and resultant runoff. The SOARS program created substantial data layers to create analytical and visual tools that can enhance community awareness of potential environmental

threats and assist in the local decision-making process for watershed stewardship.

In addition to the substantial technical data, the SOARS program offers five benefits to the community:

- Technology transfer of state-of-the-art watershed analysis tools to the local community
- Expanded use of Ohio universities for locally applicable research and education
- Real world experience for students to put their academic skills to work
- Leverage and value from collaborated efforts among CRCPO, AHR, Ohio View, and NASA greatly exceeds what any local group could afford or produce.
- Partnering among federal, university and local entities for SOARS has produced a wealth of material that will enable the RAP to provide educational and technical materials to the local watershed organizations we are supporting.

The RAP is developing a series of workshops, using SOARS data maps, aimed at assisting community officials in determining appropriate local BMPs to reduce nutrients and improve dissolved oxygen concentrations.

Additional Work by the RAP and Its Stakeholders

In 2003 and 2004, the USACE will be collecting data from RAP stakeholders to prepare a comprehensive sediment transport model for the Cuyahoga River Watershed, leading to better decisions on sediment and storm water issues and best management practices.

Conservation easements, mechanisms that can be used to protect riparian corridors, are being obtained and held by both the Cuyahoga County and Summit County Soil and Water Conservation Districts, the various park systems in the lower watershed, and by various conservancy organizations, such as the Cleveland Museum of Natural History, Medina Summit Land Conservancy, West Creek Preservation Committee, Hudson Land Conservancy, and Tinkers Creek Land Conservancy. To date, over 1600 acres of land in the Lower Cuyahoga River Watershed are held in easements by these organizations. In 2003, the RAP will develop and distribute a guide to conservation easements to riparian zone property holders to promote obtaining additional protected areas.

Cuyahoga S&WCD currently has easements on 25 acres, with an additional 48 acres to be placed in easements in early 2003. Efforts such as this have resulted in over 100 acres of riparian lands protected in the lower Cuyahoga in addition to the thousands of acres protected within the Cuyahoga Valley National Park, Cleveland Metroparks, Metroparks Serving Summit County, and public park lands within various municipalities. The *Cuyahoga County Green space Plan* and the *Summit County Trail and Greenway Plan* both call for additional acreage to be protected by future efforts.

The National Park Service is preparing to utilize a *Riverbank Management Alternative* to identify and implement bioengineering measures to restore and prevent stream bank erosion within the Cuyahoga Valley National Park. Over 3 miles of stream bank have been restored utilizing soil bioengineering techniques to date, with more to come.

Grants

A. LEPP- Wetland Mapping Total of \$66,600 for an 18 month grant to inventory, map and ground truth potential wetland sites in non-park areas in the Cuyahoga County portion of the Cuyahoga River Watershed. Content will include a report, map and GIS file of information about each of the mapped wetlands. Davey Resource Group is the principal contractor. Fieldwork

lagged over the winter due to snow cover. Project is to be presented to the RAP Stakeholders at their September 2003 meeting.

B. LEPF- Development of Decision Support System to improve integration of Watershed environmental considerations with transportation planning and development. Partnering with USGS and NOACA for 24-month project. Project includes RAP led EPA sponsored workshops cited below. This grant also provides for a RAP led workshop.

C. EPA- Workshops and data review for LEPF grant to develop a Decision Support System *to improve integration of watershed environmental considerations with transportation planning and development*. This grant provides that the RAP will develop and lead a series of 3 workshops to solicit input and feedback on the design and functionality of the GIS-based tool.

D. Stearns Farm Park Stream Restoration- Five Star Restoration grant for \$10,000 as partial funding of a restoration of a drainage ditch into a functional stream channel. RAP is project coordinator and documenting the restoration process for a brochure.

E. Stearns Farm Stream Restoration- EPA grant to the City of Parma. RAP secured both grants for the project. The RAP will document the process and publish a brochure. Stearns Farm project was highlighted as a River Day event on 31 May..

F. USFS- Grants #160 and #173- Carry over of grants awarded to RAP in 2002, for operational support for mapping, brochure development, printing and postage to support RAP work program.

G. USACE- Habitat Feasibility Study- Corps providing services to RAP to develop design protocols and potential locations for Navigation Channel bank side areas to provide habitat with cover plants and improved DO as sanctuary for larval fish. RAP is sponsor of project with OEPA and will be providing logistical support.

H. EPA- SOLEC 2002- RAP provided local administrative and registrar services for the bi-annual 2002 State of the Lakes Ecosystem Conference held in October 2002 in Cleveland, Ohio.

I. American Heritage River- The CRCPO was designated by USFS to replace the duties of the federally funded River Navigator as the principle resource, point of contact and funding recipient for the **American Heritage River Initiative**. The CRCPO will coordinate efforts with the AHR partners to develop and implement community based projects for the entire watershed.

Recent Publications

About The RAP Brochure

Guide to Understanding TMDL (This publication was distributed to local elected officials and other interested parties throughout the Lower Cuyahoga watershed)

2001 Imperviousness Maps of Watersheds (on website: www.CuyahogaRiverRAP.org)

Erie Streams and Rivers: Operation and Maintenance Handbook for Cuyahoga River Tributaries (This booklet helps to educate watershed residents on the importance of stream functionality and stewardship)

In 2003, the RAP will produce and distribute educational brochures on “*The Effects of Imperviousness on Streams*”, “*The Importance of Watersheds as a Focus for Local Planning*”, “*The Effects of Highways and Roads on Watersheds*”, and “*Conservation Easements*”. The RAP will continue to provide GIS based mapping to tributary watershed groups and expand the content of the new website www.CuyahogaRiverRAP.org.

The Cuyahoga River Remedial Acton Plan continues to be an important and effective community based resource for seeking restoration of the beneficial uses in the Cuyahoga River Area of Concern.

“Promoting Healthy Streams for Healthy Communities”

