



Public / Private / Regional Partnerships for Restoring the Cuyahoga River

The Historic Cuyahoga River-

- 112 miles long, drains 812 square miles from 91 local governments in 6 Counties.
- Empties into Lake Erie at Cleveland, Ohio
- Terminus of Ohio and Erie Canal
- Shipping / Industrial Center
- Population dispersing - Since 1970 Imperviousness has tripled while the population has remained the same, at 1.2 million, creating a sprawl-fueled local economy, similar to many other Great Lakes Cities.

The Local Disaster that started a National Movement-

1969- The recovery of the Cuyahoga River started with the infamous fire; which led to:

1972- Formation of US EPA / Passage of the Clean Water Act; and,

1973- Formation of Ohio EPA; and,

1985- International Joint Commission, declares 43 Areas of Concern (AOCs) in the Great Lakes, 31 in US) including the Cuyahoga which has 10 of 14 listed 'Impairments'; and

1986- Formation of Remedial Action Plans (RAPs) as Community Driven restoration efforts- No defined structure, no authority and no funding mechanism, but a big mission to eliminate the listed impairments (referred to as Delisting”).

1988- Cuyahoga River Community Planning Organization (CRCPO) was formed as the non- profit 501(c) 3 financial parent to implement the Cuyahoga River RAP

1998- Designation by President Clinton as one of fourteen American Heritage Rivers - Provides important Federal recognition and support

2005- Great Lakes Regional Collaborative Plan reasserts the importance of AOCs and RAPs for the recovery and preservation of the Great Lakes. GLRC plan calls for \$20 billion in new Federal support over 20 years.

CRCPO is the lead American Heritage River community partner- Along with NOACA, NEFCO, Ohio & Erie Canalway, and Upper Cuyahoga River Task Force.

Cuyahoga River RAP has a 39 member stakeholder Coordinating Committee whom are appointed by the Director of Ohio EPA, which includes businesses, relevant government and regional agencies, community groups, individuals with an interest in the river and Tributary-based watershed groups. RAP Coordinating Committee sets the Delisting Targets.

James White, **RAP Executive Director**, is also the **federally recognized AHRI River Navigator** for the Cuyahoga. The Cuyahoga River holds a unique status as one of only two US Rivers that are both American Heritage Rivers and a Great Lakes Area of Concern with a Remedial Action Plan.



Key Cuyahoga RAP/ AHR Themes-

Rediscover ~ Respect ~ Revitalize Ohio's American Heritage River

Promotes integrated approaches for cultural, environmental and economic restoration of the Cuyahoga basin

Investing in Healthy Streams Sustains Healthy Communities

Links asset growth and management to promote Sustainability, Stability and Prosperity

Asset Based Management-

Recognizes Water Resources as important economic assets
Emphasizes reliance on assets for community problem solving

Our core skills- We strive to be Friendly, Knowledgeable and Supportive in our work

- **Planning and problem solving-**
 - Restore and preserve natural stream & corridor functionality
 - Promote sustainable thinking and practices
 - Coalesce resources and partners
- **Public education and involvement-**
 - Promote Integrated Communications Plans
 - Tributary- based approach and Education for Public officials
- **Technical data management and mapping:** GIS / Remote Sensing / Data base management
- **Project Management** for on-the-ground remedial actions
- **Clearinghouse for mitigation** / reparation projects within the watershed
- **Coordination with related State and Federal agencies** which may or should be involved in restoration efforts
- **CLEERTEC-**

About CLEERTEC- Cuyahoga/ Lake Erie Environmental Restoration Technology Enterprise Center-

CLEERTEC is a joint project of the Cuyahoga River RAP and Cuyahoga American Heritage River Initiative to help merge the needs of environmental restoration, with innovative environmental restoration technology and economic development.

The concept was developed to integrate four key principles regarding RAP/AHR opportunities for environmental restoration and community revitalization:

1. River and tributary restoration will require sustained effort by all segments of the community and region.
2. The nature of existing and emerging pollutants and environmental stressors are very susceptible to creative approaches and new technology.
3. Environmental restoration makes good economic sense for the community as a business and job incubator. Environmental restoration is one of fastest growing sectors of US and Ohio economy.
4. Substantial projected new federal funding especially opportunities emerging from the Great Lakes Regional Collaborative for Great Lakes cleanup has the potential to provide capital and significant additional market demand for environmental restoration providers.

Working closely with Cuyahoga County and the Cuyahoga Valley Initiative, CLEERTEC developed a successful proposal for developing a prototype High-performance Shoreline Management Systems for replacing the aging Sheet Steel Bulkhead, which lines the 5.5 mile Ship Channel, with an environmentally friendly cost-effective alternative that can be manufactured locally and marketed throughout the Great Lakes and the Nation.



On-going Community Remedial Actions and Investments-

- **Delisting Action Plan**

USEPA Grant to RAP to develop an integrated action plan that links elimination of Impairments with TMDL goals and Community Phase II Stormwater permits.

Restoration Actions are organized by Remedial Action Management Units- Ship channel / Dams/ CSOs Sediments/ Tributaries.

Each Remedial Action unit has a defined: Principal Sponsor / Defined collaborative partners / Action Sequence & Timetable and Funding Model

- **Combined Sewer Overflows-**

Source of:

Debris / Nutrients / Bacteria / BOD / Water Contact Advisories / Fish Consumption Advisories

Actions:

\$1.6 Billion 30-year long-term CSO control program by NEORS

\$ 400 million 20-30 year long-term CSO control program by Akron Utilities

- **Dam by pass and removal-**

Source of:

Low Dissolved Oxygen / Fish Migration Barriers / Sediment and Pollutant Traps / Impaired Habitat

Actions:

Kent Dam- By-pass completed

Munroe Falls Dam – Removal completed

Station Road Dam- SEP funded study underway- Dam removal will open many high quality fish spawning beds in CVNP (Expanded habitat requires access thru Ship channel)

Dam removal plans in tributaries to improve flow in each tributary

Edison Dam – Ill-conceived hydropower permit being sought;

RAP & AHRI has raised concerns with FERC regarding long-term effects on river recovery.

- **Tributary- based watershed organizations and management plans-**

Source of:

Non-point source stressors / Flow alterations / Habitat Loss / Nutrients / Bacteria / Imperviousness / BOD / Sediment

Actions: Tributary Organizations formed and incubating and actions in:

- **Big Creek***- RAP sponsors Friends of Big Creek
- **Mill Creek***- RAP providing Technical Studies and Wetlands Assessment
- **West Creek***- Watershed Plan and Environmental Center in development by Metroparks
- **Tinkers Creek & Pond Brook***- Plan development under way. RAP sponsored Pond Brook Initiative
- **Chippewa Creek-** RAP implementing an ODNR Grant for Watershed Management Plan
- **Yellow Creek-** Active group and Watershed Plan / RAP acts as Advisor
- **Little Cuyahoga-** Watershed Plan in development by AHR partner, NEFCO
- **Breakneck Creek-** Watershed Plan underway with County and Portage Parks- AHRI providing outreach brochure and education materials
- **Kent Area Tributaries-** RAP/ AHR supports Phase II Public Outreach and Involvement
- **Doan Brook***- Watershed Organization and COG in Place, AHRI provides Grant support
- **Euclid Creek***- Watershed Plan and COG in Place.

* Participate as members of the RAP Coordinating Committee

- **Ship Channel -**

Source of:

Armored Shore Line- provides lack of habitat, shelter & food for Migrating Fish
Dredged Depth causes slow flow creates a Sediment and Pollutant Trap / Seasonal High temp & Low DO
Dredged sediments require disposal in expensive Combined Disposal Facilities
Listed as TMDL Stressor / Receives all the effects of upstream impacts
River restoration actions upstream require improvements in the Ship Channel.

Actions:

1. **RAP/ OEPA/ COE Project for Fish Habitat Pockets:**

Mini habitat pockets along the Ship Channel –provides shelter, food, protection
Small size and low cost make them feasible in numerous locations,
Eligible for mitigation funds and credits
Build-able within existing sheet steel shoreline configuration

2. **High Performance Shoreline Management System- Prototype Development Project:**

Ship Channel sheet steel bulkhead shoreline is wearing out, expensive to repair and maintain and offers no improvement to water quality or habitat.
CLEERTEC and the Cuyahoga River Community partners have been funded to develop and test a long-term shoreline restoration system that would provide for a: sustainable, lower cost, high performance ship channel shoreline that accommodates shipping and also provides improved fish passage.

The Development and evaluation of the HPSMS or “**Cuyahoga Green Bulkhead**” was funded for \$500,000 in Federal Water Resources Development Act (WRDA) for FY 2006.
\$1.3 million in Federal Funds are included in the FY 2007 Budget for the HPSMS project.

The project will engage participation for Local Industries, Engineers Universities, the City and County, Federal and State regulators and other community stakeholders,

- **Wetland / Stream Mitigation -**

CRCPO is leading the development of a Brokering Center to facilitate the retention of mitigation actions within the watershed.

- **Self- Funding Watershed Management Organization-**

The need to provide a source of local match for important federal funds such as Grants, Supplemental Environmental projects, National Resource Damage Assessments, requires a sustainable funding model for local participation.

Providing a **sufficient, stable and predictable source of funding for watershed stewardship** is a priority of the Cuyahoga- American Heritage River Partners

AHRI is facilitating regular monthly meetings to a growing body of Community Watershed and Collaborative partners to discuss needs, authorities governance, revenue mechanisms and other organizational aspects and options for a Self-funding watershed organization.

The Cuyahoga Plan for self- funded stewardship has been presented to Great Lakes Regional Collaborative, USEPA- Environmental Finance Advisory Board, Great Lakes Protection Fund, and Lake Erie LaMP. Interest and support continues to grow. Analysis suggests the Cuyahoga Model could raise \$20 million annually to support a wide variety of remedial actions by Cuyahoga basin partners.