

# REPORT CARD

The Buffalo River Area of Concern 2004 Report Card was created by the Buffalo River Remedial Advisory Committee (RAC). The purpose of this Report Card is to give a brief overview of the health, improvements and current conditions of the Buffalo River Watershed over the last 15 years. The Buffalo River Watershed includes three tributaries – Cayuga Creek, Buffalo Creek, and Cazenovia Creek.

Scientific data and research that was referenced during the development of this report card is available at our website: [www.fbnr.org](http://www.fbnr.org).

The Report Card offers six “indicators” related to the River’s health. They are: 1) Water Quality; 2) Contamination; 3) Fish and Wildlife; 4) Public Access and Recreation; 5) Environmental Education and Public Involvement; and 6) Land Use and Development. The first three indicators are specifically addressed by the RAP, while the remaining three are important restoration factors not directly addressed by the RAP

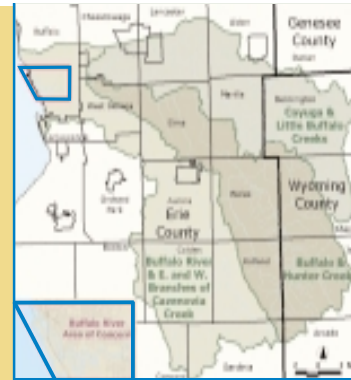
Each indicator has been broken down further into several “categories.” Each category has been issued a letter grade based on past successes, current health and conditions, and trends over the last 15 years. The last column identifies action steps or immediate concerns to be addressed in order to meet restoration targets for the Area of Concern. The Buffalo River Report Card will be updated annually.

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TRENDS	GRADING
Conditions Improving Increased Level of Effort and New Dedicated Resources	<b>A</b> Excellent <b>B</b> Good
Conditions Unchanged Level of Effort Same, No New Resources Dedicat	<b>C</b> Fair <b>D</b> Poor
Conditions Worsening No Level of Effort, No Resources Available	<b>E</b> Failure

## WHAT IS THE BUFFALO RIVER AREA OF CONCERN (AOC)?

In 1989, local, state and federal officials identified the Buffalo River as one of 43 “Areas of Concern” (AOC) throughout the Great Lakes basin. The Buffalo River received this designation because of its severely degraded condition as it was once virtually devoid of all life. The Buffalo River Watershed is approximately 440 square miles including three major tributaries – Cayuga Creek, Buffalo Creek, and Cazenovia Creek. The River is slow flowing and much of the natural shoreline has been altered or destroyed since the early 1900’s.



## WHAT IS THE BUFFALO RIVER REMEDIAL ACTION PLAN (RAP)?

When the Buffalo River AOC was designated, the NYS Department of Environmental Conservation worked with local community leaders to develop a “Remedial Action Plan,” or RAP. A RAP identifies sources of problems, how pollution problems will be fixed, who is responsible, and how to prevent future contamination. Since 1989, much progress has been made on inactive hazardous waste sites as well as habitat restoration along the River, however contamination is still persistent in river sediments and fish and wildlife. In addition, bacteria levels continue to restrict healthy human contact with the water.

## MAJOR PROBLEMS

- 1| Contaminated sediments
- 2| Bacteria
- 3| PCBs, PAHs, and pesticides
- 4| Non-point source pollution
- 5| Limited habitat

## WHAT IS THE BUFFALO RIVER REMEDIAL ADVISORY COMMITTEE (RAC)?

The Buffalo River Remedial Advisory Committee (RAC) is responsible for implementing the RAP, monitoring restoration efforts, and assessing ongoing needs and conditions. The RAC is comprised of over 30 advisors from agencies, organizations and the local community. In 2003, the US Environmental Protection Agency awarded a grant to the Friends of the Buffalo Niagara Rivers to coordinate RAP implementation. The RAC was “re-energized” in January of 2004 and is currently making significant progress on establishing clear restoration goals for the Buffalo River watershed.

	CATEGORIES	GRADE	SUCCESSES AND IMPROVEMENTS	CURRENT CONDITONS	TREND	STEPS NEEDED FOR PROBLEM RESOLUTION
WATER QUALITY	<b>Overall water quality in the river and creeks</b>	<b>C</b>	<ul style="list-style-type: none"> <li>Loss of industry resulted in fewer chemical discharges to the river</li> <li>Declining levels of PCBs and pesticides in water column</li> <li>Suspended sediment concentrations have declined</li> </ul>	<ul style="list-style-type: none"> <li>Turbidity (cloudiness of water) in the Buffalo River may affect young fish</li> <li>Very low dissolved oxygen</li> <li>Some heavy metals exceed standards in the water column (i.e.: iron, mercury, and zinc)</li> </ul>	↑	<ul style="list-style-type: none"> <li>Implementation of nonpoint source (agricultural and other runoff) pollution abatement practices in upper watershed</li> <li>Continue erosion control measures in upper watershed</li> <li>Full implementation of Stormwater Phase II regulations</li> </ul>
	<b>Bacterial contamination (Fecal Coliform and E. Coli)</b>	<b>D</b>	<ul style="list-style-type: none"> <li>Buffalo Sewer Authority recently completed a draft “Long Term Control Plan” for Combined Sewer Overflows (CSOs).</li> <li>Erie County Water Quality Committee has sponsored a series of septic system workshops within the watershed</li> <li>Recent separation of sewer systems in Kaisertown has eliminated several CSOs</li> </ul>	<ul style="list-style-type: none"> <li>Buffalo River frequently exceeds standards for fecal coliform bacteria due to failing septic systems in the upper watershed and combined sewer overflows, presenting a potential health risk for contact</li> </ul>	↔	<ul style="list-style-type: none"> <li>Continue to address failing septic systems throughout upper watershed</li> <li>Implement the Long Term Control Plan for CSOs</li> </ul>
CONTAMINATION	<b>Contaminated sediments in the Buffalo River</b>	<b>D</b>	<ul style="list-style-type: none"> <li>Ongoing sediment analysis and testing to determine extent and location of contamination</li> <li>Three local research projects recently received ~\$200,000 in federal funding</li> <li>More recently deposited sediment is cleaner</li> <li>Contaminated sediment removed from the river around the Buffalo Color peninsula</li> </ul>	<ul style="list-style-type: none"> <li>Historical sediments in the river exceed EPA standards for PCBs, PAHs and pesticides</li> <li>Ongoing navigational dredging continues to disturb some historical contaminated sediments</li> </ul>	↔	<ul style="list-style-type: none"> <li>Army Corps must complete a feasibility study prior to any sediment remediation</li> <li>Federal funding and local project partners are needed to fully complete the clean up</li> </ul>
	<b>Spills, discharges and leaching of contaminants</b>	<b>C</b>	<ul style="list-style-type: none"> <li>34 of 40 identified inactive hazardous waste sites have been sealed or remediated</li> <li>Regulatory programs and monitoring by NYSDEC help reduce inputs into waterway</li> </ul>	<ul style="list-style-type: none"> <li>Leaching of contaminants may continue from six unremediated hazardous waste sites</li> <li>Illegal connections to storm sewer lines may be present</li> </ul>	↑	<ul style="list-style-type: none"> <li>Complete remediation of all inactive hazardous waste site</li> </ul>
FISH AND WILDLIFE	<b>Restoration of fish and wildlife habitat</b>	<b>C</b>	<ul style="list-style-type: none"> <li>Nearly 12 acres of riverine habitat restored along Buffalo River since 1997 (Ohio Street, Smith Street, and Bailey Avenue sites)</li> <li>Some abandoned sites have re-vegetated naturally and provide limited habitat</li> </ul>	<ul style="list-style-type: none"> <li>Seneca Bluffs Habitat Restoration Project underway along the Buffalo River (12 acres)</li> <li>Potential habitat areas limited due to contamination, development and altered shoreline</li> <li>A 100-foot setback ordinance exists in the City of Buffalo</li> </ul>	↑	<ul style="list-style-type: none"> <li>Complete Seneca Bluffs and Times Beach Restoration (~50 acres) projects</li> <li>Identify and protect critical watershed habitat</li> <li>Control sedimentation from erosion in the upper watershed that degrades aquatic habitat</li> <li>Establish local riparian setbacks in upper watershed</li> </ul>
	<b>Fish &amp; wildlife diversity and populations</b>	<b>B</b>	<ul style="list-style-type: none"> <li>Species diversity has been increasing since 1989.</li> <li>Native terrestrial wildlife (e.g. Red Fox, White-Tailed Deer) are recolonizing abandoned industrial sites</li> <li>Successful fish stocking programs in Buffalo Creek and Buffalo River by NYSDEC</li> </ul>	<ul style="list-style-type: none"> <li>Japanese knotweed and other invasive plant species (i.e.: purple loosestrife, phragmites) are taking over much of the natural vegetation throughout the watershed</li> <li>Invasive Eurasian Ruffe, Round Goby and Sea Lamprey populations threaten fish diversity</li> </ul>	↓	<ul style="list-style-type: none"> <li>Need to control invasive plant species</li> <li>Improved and increased habitat will invite more diversity and the return of native species (i.e., sturgeon, walleye, etc.)</li> </ul>
	<b>Contaminant levels in fish &amp; wildlife</b>	<b>C</b>	<ul style="list-style-type: none"> <li>Fewer incidences of deformities in benthic organisms during last decade</li> <li>Fewer incidences of fish tumors observed during the last decade</li> </ul>	<ul style="list-style-type: none"> <li>Fish consumption advisories still exist for the Buffalo River</li> <li>Contaminant levels in some fish species remain unchanged since 1997</li> </ul>	↔	<ul style="list-style-type: none"> <li>Need research conducted on contaminant levels in birds and wildlife</li> <li>Fish contamination levels will continue to exceed standards as long as contaminants in sediments can be resuspended</li> </ul>

## How Would YOU Grade the Buffalo River?

We want to hear from you! This Citizens’ Report Card will help us understand your concerns as we work to restore the river.

Buffalo River Citizens’ Report Card	
“Class”	Grade
<b>Access</b> Is it easy to get to the shoreline? Is there public land to enjoy?	
<b>Fishing</b> Are fish abundant? Are there many species? Are they healthy?	
<b>Swimming</b> Would you swim in the River? Should neighborhood kids?	
<b>Wildlife</b> Do you see many different kinds of animals? Do they have habitat?	
<b>Aesthetics</b> Is the River beautiful? Are there trash, odor or other problems?	
<b>Other</b> _____ What other conditions of the River would you find worth grading?	

Comments: \_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Email/phone: \_\_\_\_\_

Thanks for your input! For more info, visit FBNR at [www.fbnr.org](http://www.fbnr.org), email [buffaloriver@fbnr.org](mailto:buffaloriver@fbnr.org), or call 681-1730.

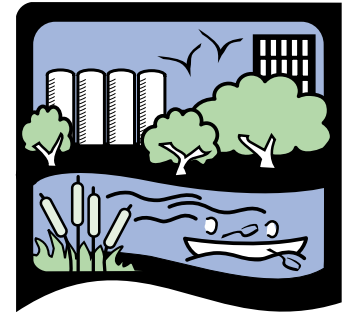
Place  
Stamp  
Here

**Friends of the Buffalo Niagara Rivers**  
616 Potomac Avenue  
Buffalo, NY 14222

	CATEGORIES	GRADE	SUCCESSES AND IMPROVEMENTS	CURRENT CONDITIONS	TREND	STEPS NEEDED FOR PROBLEM RESOLUTION
PUBLIC ACCESS AND RECREATION	Public access to the river and creeks	<b>B</b> upper watershed	<ul style="list-style-type: none"> <li>Buffalo River Urban Canoe Trail Guide created</li> <li>Three restoration sites (~12 acres) along the Buffalo River, with fishing and canoe/kayak access completed in 1997 (Smith Street, Bailey Avenue and Ohio Street); Seneca Bluffs under construction</li> </ul>	<ul style="list-style-type: none"> <li>Numerous areas in upper watershed for shoreline fishing access</li> <li>Very few natural shoreline areas on Buffalo River remain; access is limited due to contaminated sites, private properties and armoring of shoreline</li> <li>Development pressures in upper watershed continue to degrade potential habitat and access to waterways</li> </ul>	↑	<ul style="list-style-type: none"> <li>Access improvements are needed along Buffalo River</li> <li>Implement greenway and buffer strip requirements in municipalities throughout the watershed</li> <li>Reduce stormwater and CSO discharges</li> <li>Implement catchbasin stenciling and litter reduction efforts</li> </ul>
	Aesthetics of Buffalo River and adjacent riparian areas	<b>C</b> lower watershed				
ENVIRONMENTAL EDUCATION AND PUBLIC INVOLVEMENT	Public awareness/appreciation of the watershed	<b>D</b>	<ul style="list-style-type: none"> <li>Each spring and fall various groups coordinate thousands of volunteers for river and shoreline clean-ups</li> <li>Spring and fall clean-ups clear dangerous debris from miles of shoreline and river bottom</li> </ul>	<ul style="list-style-type: none"> <li>Many abandoned industrial sites detract from river's natural beauty</li> <li>The Buffalo River continuously receives litter and other floatables from combined sewer overflows, stormwater discharges, and upstream sources</li> <li>Strong odor from combined sewer overflows (CSOs)</li> </ul>	↓	<ul style="list-style-type: none"> <li>Continue community and municipal shoreline clean-ups</li> <li>Establish and enforce buffer zones, minimum setbacks from shoreline</li> </ul>
	Public knowledge about non-point source pollution	<b>C</b>	<ul style="list-style-type: none"> <li>Local environmental education organizations raise public awareness by conducting ongoing programs throughout the watershed</li> <li>WNY Earth Day 2004 focused water quality issues, educating thousands of families through print media and at the event</li> <li>Annual festivals help promote environmental education (i.e.: Buffalo Riverfest, Waterfest, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Watershed issues are generally not a priority to local residents unless there are local beach closings, health advisories or flooding</li> <li>Development pressures continue throughout the upper watershed</li> </ul>	↑	<ul style="list-style-type: none"> <li>Updated, free-flowing communication and increased opportunities for community feedback is needed regarding watershed policies</li> <li>Increased support from all forms of local media is needed to inform the public</li> </ul>
	Environmental stewardship	<b>D</b>	<ul style="list-style-type: none"> <li>Over 12,000 Erie County residents registered for Pesticide Notification</li> <li>FBNR's 2004 "River Smart" campaign provided non-point source awareness advertisements in local TV, radio and print media</li> </ul>	<ul style="list-style-type: none"> <li>Poor maintenance of private/residential septic systems throughout the watershed</li> <li>Non-point source pollution (pollution from surface runoff that can not be easily identified) continues to be a major problem resulting in the impairment of the Buffalo River</li> </ul>	↔	<ul style="list-style-type: none"> <li>FBNR will be initiating a storm drain stenciling program over 2005</li> <li>More public involvement needed on projects such as the Buffalo Sewer Authority's long term plan</li> </ul>
LAND USE AND DEVELOPMENT	Land use & planning	<b>C</b>	<ul style="list-style-type: none"> <li>Spring and fall cleanup events engage thousands of local residents in environmental stewardship</li> <li>Erie County Household Hazardous Waste Collection Days collects on average 34,000 gallons of waste from over 3,000 residents each year</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing community environmental programs through organizations like the Valley Community Center</li> <li>Limited public involvement in watershed planning and other environmental programs</li> </ul>	↔	<ul style="list-style-type: none"> <li>Partnerships among environmental organizations, community groups, business and local government must be utilized to foster stewardship</li> </ul>
	Residential development and real estate	<b>C</b>	<ul style="list-style-type: none"> <li>Increased access for passive recreational use over last 15 years</li> <li>Several plans exist for a Buffalo River Greenway</li> <li>The Soil and Water Assessment Tool (SWAT) model has been developed by the Army Corps of Engineers and Buffalo State College to address non-point source pollution through proper land use planning</li> </ul>	<ul style="list-style-type: none"> <li>City of Buffalo's Local Waterfront Revitalization Plan (LWRP) is expected to be released around 2005-06</li> <li>Many abandoned and historically contaminated industrial sites continue to limit economic redevelopment efforts</li> </ul>	↔	<ul style="list-style-type: none"> <li>Develop zoning policies to encourage the siting of water enhanced businesses</li> <li>Encourage and enhance coastal and ecotourism efforts</li> <li>Adopt the LWRP</li> <li>Encourage pedestrian and recreational use of waterways</li> </ul>
		<b>C</b>	<ul style="list-style-type: none"> <li>Several local neighborhood revitalization plans created for south Buffalo neighborhoods</li> <li>Development pressures threaten habitat, open space and access, especially in upper watershed</li> </ul>	<ul style="list-style-type: none"> <li>Economic Valuation Study currently underway for the Buffalo River Area of Concern (AOC)</li> </ul>	↓	<ul style="list-style-type: none"> <li>Conduct economic evaluation study of property values related to river cleanups, protection of greenspace, etc.</li> </ul>



## Buffalo River Area of Concern Report Card



## Buffalo River Remedial Action Plan



**WHY SHOULD YOU CARE ABOUT THE BUFFALO RIVER AREA OF CONCERN (AOC)?**  
Maintaining a healthy Buffalo River watershed has positive environmental, social and economic impacts. Restoring the Buffalo River will bring technical, high quality jobs associated with environmental research, planning and execution. A healthy river restores and preserves property values for surrounding communities. A healthy river improves quality of life for residents in terms of waterfront access, recreation opportunities and public health. A healthy river improves capacity for local ecotourism efforts at Tift Nature Preserve, Times Beach, Outer Harbor, and for hiking, biking, birding, fishing, boating, and other outdoor recreation. And, a healthy river invites further investment into a community by local industry and other water dependent or enhanced businesses.

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