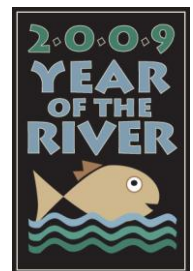


A Request for the Delisting of Select Beneficial Use Impairments in Segments and Tributaries of the Cuyahoga River Area of Concern

Submitted by the
Cuyahoga River Remedial Action Plan Coordinating Committee and
the Ohio Environmental Protection Agency

Approved by the Cuyahoga RAP Coordinating Committee
April 16, 2009



Objective

The Ohio EPA and the Cuyahoga River Remedial Action Plan Coordinating Committee propose to delist segments of the Cuyahoga River AOC for the following beneficial use impairments: degraded fish populations; degraded benthos; loss of fish habitat; and fish tumors or other deformities. They also propose to redesignate the status of the following beneficial use impairments from unknown to not impaired: tainting of fish and wildlife flavor; degradation of wildlife populations; and bird or animal deformities or reproductive problems.

The Cuyahoga River Area of Concern (AOC)

The Cuyahoga River AOC encompasses the watershed of the lower section of this 112 mile long U-shaped “crooked river”; from the Gorge Dam in Cuyahoga Falls at river mile (RM) 45.1 to its mouth at Lake Erie in the City of Cleveland. This area contains much of the urban and industrial heartland of northeast Ohio and includes the Cuyahoga Valley National Park located midway between Akron and Cleveland. Historically the river gained much notoriety due to numerous fires that occurred on the river in the Cleveland area since the late 1800s. It was profoundly degraded by the release of poorly or untreated municipal and industrial wastes along with intensive urban and industrial development. In the 1960s investigators found the Cuyahoga River not only ecologically degraded, but at times completely devoid of aquatic life. The pervasive nature and cumulative effect of these various pollution sources culminated in the now infamous fire of 1969 which brought the Cuyahoga to national attention. It became a symbol of the degraded conditions of our nation’s water resources, leading the way to the passage of the Clean Water Act in 1972, the Great Lakes Water Quality Agreement, and the formation of state and federal environmental protection agencies. In 1985 the Water Quality Board of the International Joint Commission (IJC) designated the Cuyahoga as one of 43 Areas of Concern contributing to the degraded condition of the Great Lakes. Nine of the fourteen beneficial use impairments identified by the IJC have been designated as impaired in some places within the AOC by the Cuyahoga RAP. As tribute to the historical significance of the Cuyahoga River, it was named one of fourteen American Heritage Rivers by President Clinton in 1998.

Ohio Delisting Criteria for the Degradation of Fish & Wildlife Populations, Degradation of Benthos, Loss of Fish Habitat, Fish Tumors or Other Deformities, Tainting of Fish and Wildlife Flavor and Bird or Animal Deformities or Reproductive Problems Beneficial Use Impairments

The Ohio EPA issued the document *Delisting Targets for Ohio Areas of Concern* in 2005 and revised it in 2008. This document provides rationale for the listing and delisting of each of the fourteen Beneficial Use Impairments (BUIs) originally identified by the Water Quality Board of the International Joint Commission. The Degradation of Fish Populations BUI is considered impaired if Ohio EPA surveys or other studies report significant non-attainment of Ohio fish community biological indices due to a cause within the watershed. The Loss of Fish Habitat BUI is impaired if the habitat quality, as measured by the Qualitative Habitat Evaluation Index (QHEI) averages below a score of 60 throughout the free-flowing stream stretches of the Area of Concern (AOC). The Fish Tumors or Other Deformities BUI is listed as impaired if the Deformities, Eroded Fins, Lesions and Tumors (DELT) percentages exceed 0.5% and the incidence of liver and skin tumors in brown bullhead exceed 5% and 12%, respectively. The Degradation of Benthos BUI is impaired if surveys reveal the benthic macro-invertebrate communities are in non-attainment of biological criteria due to sources or causes within the Area of Concern. The Degradation of Wildlife Populations BUI is impaired if wildlife studies or

surveys of wildlife managers indicate degraded or absent populations of selected sentinel species. The Tainting of Fish and Wildlife Flavor BUI is considered impaired when levels of compounds associated with tainting exceed Ohio Water Quality standards within the Area of Concern or wildlife officials indicate tainting is found within the area. The Bird or Animal Deformities or Reproductive Problems BUI is impaired if these problems are documented to be in local wildlife populations by wildlife managers.

The lower Cuyahoga River and selected tributaries have been regularly surveyed and assessed by Ohio EPA between 1984 and 2008. Northeast Ohio Regional Sewer District (NEORS) began an integrated monitoring and assessment program in 1990, and presently independently evaluates the lower 16 river miles of the Cuyahoga River on an annual basis. Both agencies employ standardized chemical and ambient biological sampling and analytical techniques. These organizations monitor the health and community structure of fish using the Index of Biological Integrity (IBI) and Modified Index of Well Being (MIwb). The health and community structure of benthic macro-invertebrates is monitored using the Invertebrate Community Index (ICI). The Ohio EPA has established biocriteria for fish and benthos that apply to surface waters such as the Cuyahoga River and its tributaries. The IBI and MIwb warmwater habitat attainment values for the Cuyahoga River and its tributaries are 40 and 8.7 for boat sites and 38 and 7.9 for wading sites, respectively. The ICI warmwater habitat attainment value is 34 for all sample sites. The Ohio Delisting Targets Document states that Warmwater Habitat (WWH) biocriteria are to be used as delisting targets because they are typical for most of the state's rivers and streams. WWH is the agency's restoration goal for the majority of Ohio surface water resource management efforts.

An assessment of fish tumors and other deformities using the DELT metric is made in all fish community sampling surveys. Tumor prevalence in brown bullheads is not utilized as a measure of this impairment within the Cuyahoga AOC above the navigation channel, as this species is rarely collected within this area; a single individual was collected in 2008. An average of DELT anomalies of the fish community samples collected is used to determine if the delisting target of 0.5% is reached.

Assessments of fish habitat occur in conjunction with fish and benthos assessment surveys. The habitat quality is scored utilizing QHEI methodology. Attainment values greater than 60 are associated with WWH biological assemblages and have been adopted as the delisting target.

Biological assessments and inventories of other wildlife resources within the Area of Concern are conducted by the Ohio Division of Wildlife, Cuyahoga Valley National Park, Cleveland Metroparks and Metro Parks, Serving Summit County. These agencies and organizations are responsible for the management of the natural and wildlife resources within the AOC. The assessment of the condition of wildlife resources, as it pertains to RAP delisting, is based upon best professional judgement of resource professionals associated with these organizations.

A summary of the beneficial use impairments and their delisting targets follows:

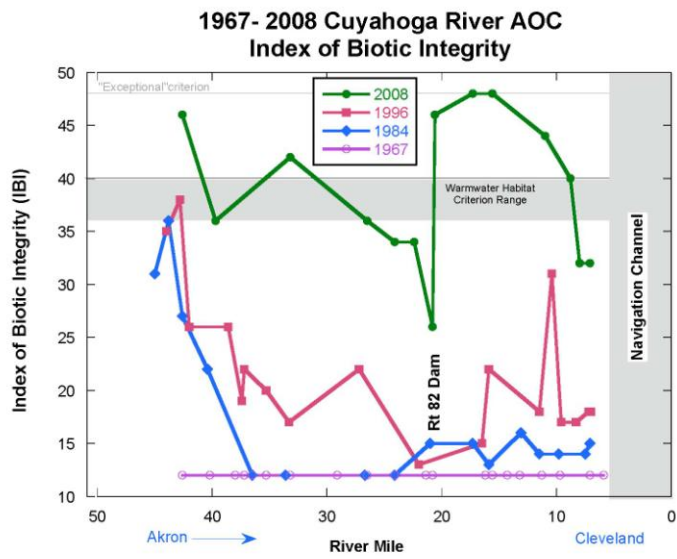
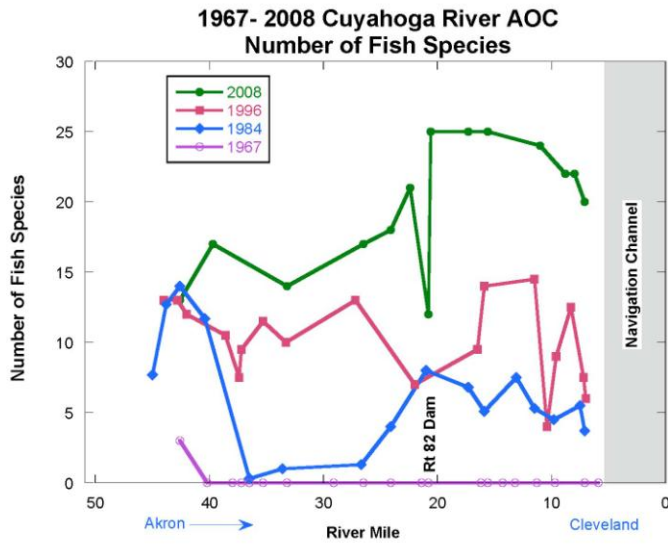
Beneficial Use Impairment	Delisting Target
Degradation of Fish Populations	IBI and MIwb scores do not significantly diverge from applicable biocriteria (IBI = 38 (wading site), IBI = 40 (boat site), MIwb = 7.9 (wading site), MIwb = 8.7 (boat site). Nonsignificant departure from biocriteria for WWH is <4 IBI units; <0.5 MIwb units.
Loss of Fish Habitat	For mainstem and tributaries, habitat quality shall average a QHEI score of 60 or better throughout the free-flowing stream stretches of the AOC.
Degradation of Benthos	ICI scores do not significantly diverge from state biological criteria (ICI = 34). Nonsignificant departure from biocriteria for WWH is < 4 ICI units.
Fish Tumors or Other Deformities	DELT levels in fish do not exceed 0.5%
Degradation of Wildlife Populations	Wildlife managers indicate no problems with wildlife populations due to contaminants within AOC
Tainting of Fish and Wildlife Flavor	No reports of tainting from fish and wildlife officials
Bird or Animal Deformities or Reproductive Problems	No reports of wildlife population deformities or reproductive problems from wildlife officials

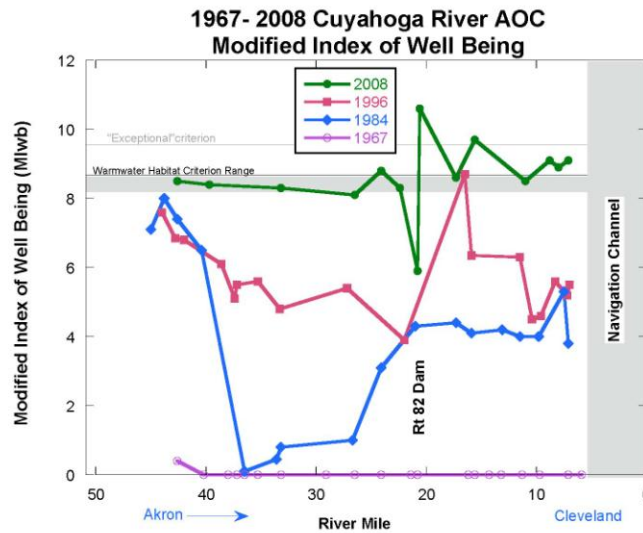
The Degradation of Fish and Benthos Populations and Loss of Fish Habitat Beneficial Use Impairments in the Cuyahoga River

Fish and benthic macroinvertebrate sampling data available to the Cuyahoga River RAP Coordinating Committee at the time of the Stage One Report (1992) and Stage One Update Report (1996) revealed significant biological impairment from the Gorge Dam to the river mouth. These impairments were attributed largely to the adverse effects of discharges from municipal wastewater sources, particularly from the City of Akron and NEORS D wastewater treatment plants and combined sewer systems. Urban runoff, illicit discharges, storm sewers, industrial point sources and unknown toxicity from legacy pollution were also identified as contributing to this impairment.

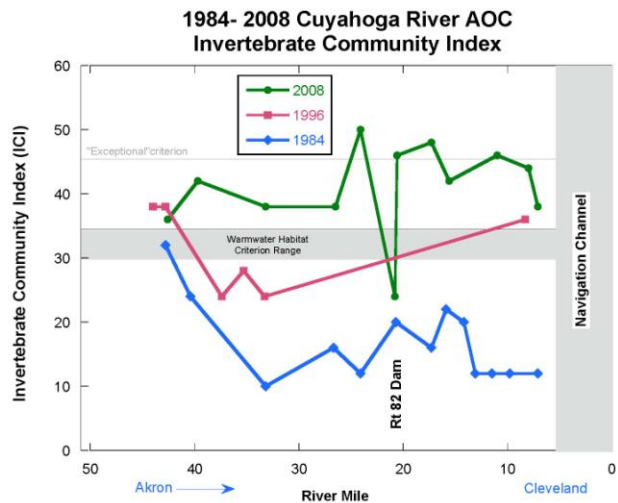
Upgrades of municipal wastewater treatment plants, decommissioning of small wastewater treatment facilities, implementation of combined sewer overflow long term control plans, improved municipal industrial pretreatment programs and decreases in industrial wastewater point source loadings have greatly reduced the amounts and types of pollutants entering the river and its tributaries. This has led to significant documented improvements in water quality and biological performance. The number of fish species has increased dramatically over the past four decades. Protection and restoration of riparian and wetland areas by natural resource organizations have aided in preventing further degradation in the watershed. Recent formation of watershed stewardship groups along with development and implementation of storm water management programs and watershed action plans are also expected to contribute to the upward trend of improved biological and water quality observed in the Cuyahoga River watershed.

The following graphs illustrate the significant improvements in fish communities from 1967 to 2008 in the mainstem of the Cuyahoga River within the Area of Concern:

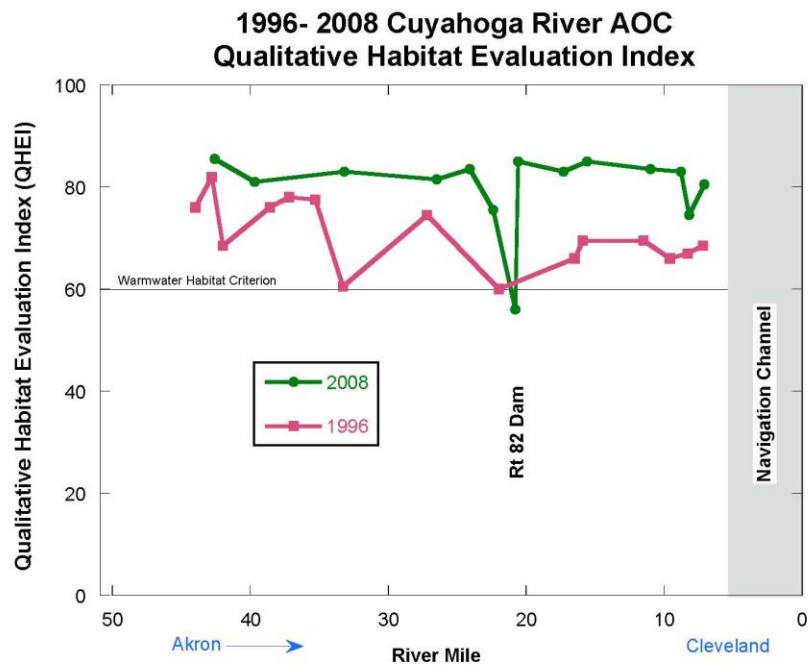




The benthic macroinvertebrate communities have also responded to improvements in water quality. Although the delisting target is an ICI of 34, recent surveys reveal that, in many reaches, the current ICI scores approach or even exceed the Exceptional Warmwater Habitat attainment score of 46. The following figure reflects the ICI trends in the lower Cuyahoga River mainstem:



The creation of the Cuyahoga Valley National Recreation Area, now the Cuyahoga Valley National Park, in 1974 was instrumental in protecting the riparian corridor of the mainstem of the Cuyahoga River as it flows from Akron to Cleveland. Combined with land holdings and stream protection efforts by Metro Parks, Serving Summit County and Cleveland Metroparks, most of the fish habitat in the mainstem and several tributaries meet or exceed the delisting target. This was recognized by the Cuyahoga RAP Coordinating Committee in the 1992 Stage One Report which declared the mainstem of the river from the Gorge Dam to the head of the navigation channel as not impaired. This document seeks to gain formal recognition for delisting of this use impairment in this area of the AOC. A figure illustrating these conditions follows:



As observed in these figures, the major segment of the lower Cuyahoga River mainstem that is not meeting the Ohio water quality standards/delisting target for fish and benthos communities is in the dam pool above the Route 82/Brecksville Dam at river mile 20. This is also the only segment that does not meet the fish habitat QHEI target. This dam is currently under consideration for removal/modification which will allow this segment to be delisted for fish and benthos impairments in the future.

The improvements in IBI, MIwb, ICI and QHEI scores in the Cuyahoga River and selected tributaries can be seen in the following tables:

Table 1. A comparison of IBI, MIwb, ICI, and QHEI scores for the Cuyahoga River and Tinkers Creek by river mile, 1984 - 2008. Because exact sampling locations often varied between surveys, sites that were similar in proximity or functionality (e.g., upstream or downstream from a major discharge or confluence) were grouped to demonstrate trends. Values in green meet Delisting Targets (IBI=40 for boat site, IBI=38 for wading site; MIwb=8.7 boat site, MIwb=7.9 wading site, ICI=34, QHEI=60)

River/Tributary	RM	1984			1991/1996				2000				2008			
		IBI	MIwb	ICI ^a	IBI	MIwb	ICI	QHEI	IBI	MIwb	ICI	QHEI	IBI	MIwb	ICI	QHEI
Cuyahoga	42.6	27	7.4	32 ^{ns}	33	8.1	28	86.0	42	8.2 ^{ns}	38	78.5	46	8.5 ^{ns}	36	85.5
Cuyahoga	39.7	22	6.5	24	25	6.9	32 ^{ns}	76.5	33	8.3 ^{ns}	34	76.5	36 ^{ns}	8.4 ^{ns}	42	81.0
Cuyahoga	33.2	12	0.8	10	17	4.8	24	81.0	23	7.7	42	81.0	42	8.3 ^{ns}	38	83.0
Cuyahoga	26.5	12	1.0	16	22	7.0	36	73.0	30	7.9	32 ^{ns}	78.0	36 ^{ns}	8.1	38	81.5
Cuyahoga	24.1	12	3.1	p	-	-	-	-	-	-	-	-	34	8.8	50	83.5
Cuyahoga	22.4	-	-	-	13	3.9	-	60.0	-	-	-	-	34	8.3 ^{ns}	-	75.5
Cuyahoga	20.8	15	4.3	-	-	-	-	-	-	-	-	-	26	5.9	24	56.0
Cuyahoga	20.6	-	-	20	-	-	46	-	-	-	-	-	46	10.6	46	85.0
Cuyahoga	17.3	15	4.4	16	15	5.7	42	66.0	-	-	-	-	48	8.6 ^{ns}	48	83.0
Cuyahoga	15.6	13	4.1	22	24	7.3	42	73.0	38	8.9	44	79.0	48	9.7	42	85.0
Cuyahoga	11.0	14	4.0	p	19	6.6	42	71.5	24	6.7	mg	79.5	37 ^{ns}	8.9	40	83.5
Cuyahoga	10.1	14	4.0	12	18	6.1	36	71.5	-	-	-	-	36 ^{ns}	9.4	40	83.5
Cuyahoga	8.8	-	-	-	19	5.8	34	75.5	-	-	-	-	40	9.1	-	83.0
Cuyahoga	8.0	14	3.4	-	17	5.9	32 ^{ns}	72.5	28	8.0	38	77.5	32 ^c	8.5 ^{ns}	38	74.5
Cuyahoga	7.1	15	3.8	p	21	6.9	34	73.5	26	7.5	42	63.0	32 ^c	8.5 ^{ns}	38	80.5
Tinkers Creek	28.3	31	-	34	30	-	48	67.0	32 ^{ns}	-	48	-	-	-	-	-
Tinkers Creek	25.2	20	-	20	21	-	54	77.5	24	-	46	63.0 ^b	-	-	-	-
Tinkers Creek	18.0	30	5.0	20	19	4.8	40	62.0	25	5.3	40	-	-	-	-	-
Tinkers Creek	14.3	28	5.6	24	22	6.4	40	73.5	28	6.4	40	68.5 ^b	-	-	-	-
Tinkers Creek	8.5	20	4.7	10	17	5.0	12	74.0	21	5.5	44	-	-	-	-	-
Tinkers Creek	7.2	20	4.4	p	22	5.1	28	82.5	28	7.5	g	-	-	-	-	-
Tinkers Creek	5.1	-	-	-	-	-	-	82.5	-	-	-	88.5 ^b	44	7.3	-	80.0
Tinkers Creek	2.5	17	4.3	p	17	5.7	f	60.5	-	-	-	74.0 ^b	42	8.3	-	69.5
Tinkers Creek	0.1	21	5.3	18	21	6.9	28	76.5	32	6.1	36	78.0 ^b	38	9.1	42	78.5

^a Where artificial substrate data were lacking, a narrative evaluation based on the Quantitative sample was used –

p = POOR, mg = marginally good, g = GOOD, vg = VERY GOOD

^b Data from 2006 survey

^c Lower IBI score due to seasonal pulse of gizzard shad/natural conditions

^{ns} Nonsignificant departure from biocriteria for WWH (<4 IBI or ICI units; <0.5 MIwb units)

Table 2. A comparison of IBI, MIwb, ICI, and QHEI scores for Cuyahoga River tributaries by river mile, 1984 - 2008. Because exact sampling locations often varied between surveys, sites that were similar in proximity or functionality (e.g., upstream or downstream from a major discharge or confluence) were grouped to demonstrate trends. Values in **green** meet Delisting Targets (IBI=38; MIwb=7.9, ICI=34, QHEI=60)

River/Tributary	RM	1984			1991/1996				2000				2008			
		IBI	MI wb	ICI ^a	IBI	MI wb	ICI	QHEI	IBI	MI wb	ICI	QHEI	IBI	MI wb	ICI	QHEI
Furnace Run	7.8	-	-	-	-	-	-	-	52 ^c	-	-	-	48 ^b	-	40 ^b	74.5 ^b
Furnace Run	7.3	-	-	-	-	-	-	-	50 ^c	-	-	-	45 ^b	-	44 ^b	80.5 ^b
Furnace Run	6.5	-	-	-	-	-	-	-	46 ^c	-	-	-	52 ^b	-	44 ^b	83.0 ^b
Furnace Run	4.8	-	-	-	-	-	-	-	44 ^c	-	-	-	42 ^b	-	f ^b	71.5 ^b
Furnace Run	0.9	-	-	-	44	-	e	73.0	48 ^d	-	-	-	-	-	f ^b	-
Furnace Run	0.2	38	-	-	-	-	-	-	36 ^{3ns}	7.8 ^{3ns}	-	66.0 ^b	36 ^{ns}	7.7 ^{ns}	-	65.5
Yellow Creek	5.3	-	-	-	36	5.5	vg	-	36 ^{ns}	-	44	62.0	-	-	-	-
Yellow Creek	0.1	36 ^{ns}	6.9	vg	40	5.8	vg	-	40	8.4	46	84.0	40	8.9	-	-
Yellow Creek, NF	0.1	-	-	-	42	-	vg	69.5	50	-	mg	-	-	-	-	-
Stanford Run ¹	0.9	-	-	-	-	-	-	-	48	-	mg	58.0	-	-	-	-
Slipper Run ¹	0.1	-	-	-	-	-	-	-	42	-	vg	64.5	-	-	-	-
Boston Run ¹	0.1	-	-	-	-	-	-	-	48	-	vg	58.5	-	-	-	-
Haskell Run ¹	0.1	-	-	-	-	-	-	-	44	-	f	49.5	-	-	-	-
Salt Run ¹	0.3	-	-	-	-	-	-	-	44	-	g	70.0	-	-	-	-
Dickerson Run ¹	0.6	-	-	-	-	-	-	-	38	-	g	48.5	-	-	-	-
Langes Run ¹	0.3	-	-	-	-	-	-	-	48	-	g	53.0	-	-	-	-
Robinson Run ¹	0.1	-	-	-	-	-	-	-	42	-	g	60.0	-	-	-	-
Sagamore Creek	0.3	-	-	-	-	-	-	-	46	-	g	72.0	-	-	-	-
Woodward Creek	0.6	-	-	-	-	-	-	-	42	-	mg	68.0	-	-	-	-
Brandywine Cr.	0.6	21	5.2	10	28	4.9	f	72.0	42	8.8	46	57.5				

^a Where artificial substrate data were lacking, a narrative evaluation based on the Quantitative sample was used –
p = POOR, mg = MARGINALLY GOOD, g = GOOD, vg = VERY GOOD, e = exceptional

^b Data from 2006 survey

^c Data from 2003 survey

^d Data from 1996 survey

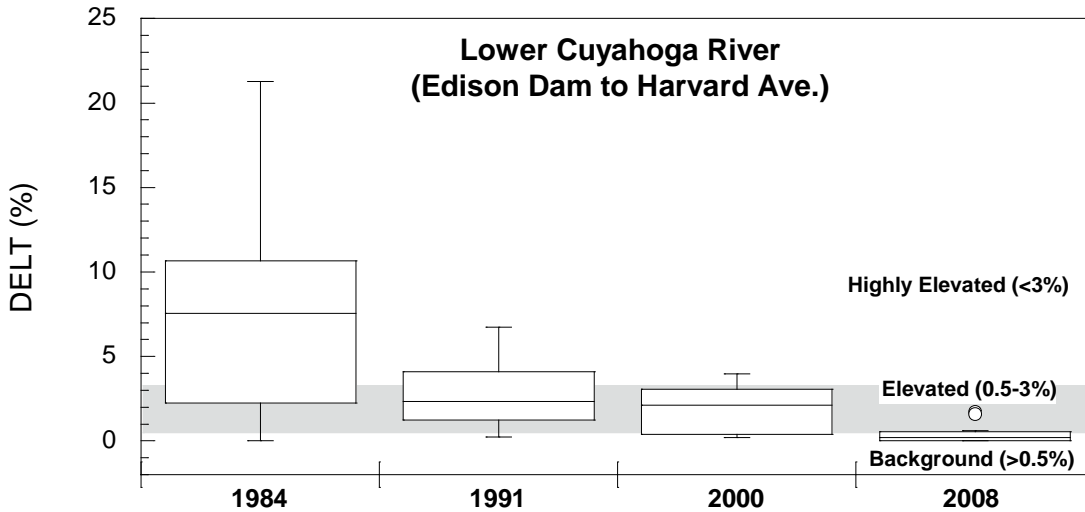
^{ns} Nonsignificant departure from biocriteria for WWH (<4 IBI or ICI units; <0.5 MIwb units)

Although not currently specified within the Ohio RAP Delisting Document, ICI narrative criteria of “good” or “very good” should also be considered as meeting the Delisting Target for benthos in the tributary streams. Based on the above data the Cuyahoga River RAP Coordinating Committee is requesting a delisting of the Degradation of Fish Populations, Loss of Fish Habitat and degradation of Benthos Use Impairments for the following tributary streams and river/stream segments in the Cuyahoga River Area of Concern:

River Segment or Tributary	Beneficial Use Impairment		
	Degradation of Fish Populations	Loss of Fish Habitat	Degradation of Benthos
Cuyahoga River Mainstem from RM 45 (Gorge Dam) to RM 27 (above the Rt. 82 / Brecksville Dam pool)	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Cuyahoga River Mainstem – Rt. 82 / Brecksville Dam Pool RM 27 to RM 20	Impaired	Impaired	Impaired
Cuyahoga River Mainstem from RM 20 (Rt. 82 / Brecksville Dam) to RM 7 (above the navigation channel)	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Yellow Creek	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Furnace Run	Delist – Not Impaired	Delist – Not Impaired	Impaired
Tinkers Creek headwaters to RM 5.1 (waterfall)	Impaired	Delist – Not Impaired	Delist – Not Impaired
Tinkers Creek from RM 5.1 to mouth	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Sagamore Creek from RM 2.4 (Dunham Road) to mouth	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Dickerson Run	Delist – Not impaired	Impaired	Delist – Not Impaired
Slipper Run	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Salt Run	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Langes Run	Delist – Not Impaired	Impaired	Delist – Not Impaired
Robinson Run	Delist – Not Impaired	Delist – Not Impaired	Delist – Not Impaired
Stanford Run	Delist – Not Impaired	Impaired	Impaired
Haskell Run	Delist – Not Impaired	Impaired	Impaired
Boston Run	Delist – Not Impaired	Impaired	Delist – Not Impaired
Woodward Creek	Delist – Not Impaired	Delist – Not Impaired	Impaired
Brandywine Creek	Delist – Not Impaired	Impaired	Delist – Not Impaired

The Fish Tumors or Other Deformities Beneficial Use Impairment in the Cuyahoga River

Improved water quality conditions resulted in a significant decrease in the incidence of DELT anomalies over the past 25 years. Presently, the median percentage of fish so affected is well below the 0.5% delisting target for the Cuyahoga AOC. This decline in DELT is observed in the following figure:



In light of the significant decline of DELTs in the Cuyahoga River mainstem, the Cuyahoga River RAP Coordinating Committee is requesting that the mainstem of the Cuyahoga River be delisted for this use impairment:

River Segment or Tributary	Beneficial Use Impairment	
	Fish Tumors or Other Deformities	
Cuyahoga River Mainstem from RM 45 (Gorge/ Edison Dam) to RM 7 (above the navigation channel)	1992 RAP Evaluation Impaired	2009 RAP Evaluation Delist – Not Impaired

The Degradation of Wildlife Populations, Tainting of Fish and Wildlife Flavor and Bird or Animal Deformities or Reproductive Problems Beneficial Use Impairments in the Cuyahoga River

The recovery of the lower Cuyahoga River over the past several decades is not only evident in the improvement in the aquatic assemblages that inhabit the river water, but in the terrestrial wildlife associated with the riparian habitat of the river corridor. Efforts to improve water quality and preserve wetlands have transformed a once heavily polluted river into an attractive place for wildlife.

The Cuyahoga River Valley is a refuge for a variety of wildlife including a number of rare and endangered species of animals. A pair of nesting bald eagles successfully fledged young in 2007 and 2008 from the first nest in Cuyahoga County along the Cuyahoga River in over 70 years. The rebounding fish populations have created an ideal place for eagles to feed and nest. State threatened peregrine falcons attempted to nest beneath a bridge high above the river in 2008. The spotted turtle, a state threatened species, has been recorded in the lower Cuyahoga along with the Blanding's turtle, a state listed species of concern. The Federally listed endangered Indiana bat, a tree roosting bat dependent on stream corridors and riparian areas which provide foraging sites, was recorded for the first time in 2002.

Numerous wildlife species - birds, mammals, amphibians, reptiles and fish populations -depend upon the river's habitat for shelter, food, nesting, and breeding grounds. The success of several inland nesting colonies of Great Blue herons (from 42 nests and 105 chicks in 1993 to 129 nests and 316 chicks in 2007) in the lower Cuyahoga river valley is a reflection of favorable habitat created by an abundant beaver population, along with protection of the valley by local land management agencies, watershed organizations and individuals. Signs of river otter, animals that prefer unpolluted waters with an abundance of slow moving fish, were recently recorded by the Division of Wildlife, Ohio Department of Natural Resources in January 2009. Abundant wildlife populations such as deer, coyote, muskrat, mink and raccoon that use multiple habitat types also use the riparian area of the river for cover, water and food resources.

The use of the river and its riparian habitat by a diversity of wildlife species including threatened and endangered and sensitive species is a direct result of improvement in water quality. According to local park species lists the diverse wildlife assemblages include 246 species of birds, 91 species of aquatic macroinvertebrates, 61 species of butterflies, 77 species of fishes, 39 species of mammals, 20 species of amphibians, and 20 species of reptiles.

The recovery of fish populations, especially sports fish species, in the Cuyahoga River has led to an increase in fishing opportunities. The Division of Wildlife (ODNR) has now listed two sites within the AOC as steelhead fishing spots. While public hunting opportunities are limited within the AOC due to its urbanization and protected park lands, nuisance deer are occasionally harvested. Deer meat has been donated to food banks for several years with no tainting issues identified. Hunting of wildlife such as waterfowl that may be affected by river or nearshore area of Lake Erie water quality is minimal to non-existent. No point sources of pollutants associated with tainting of fish or wildlife flavor (such as phenolic compounds) are known to exist within the AOC. Ohio EPA sampling of water quality over the past several years has not revealed the presence of these compounds.

No reports of fish flavor tainting have been received by the Division of Wildlife. No reports of any bird or animal deformities or reproductive problems have been noted by the Division of Wildlife and area wildlife managers. In 1992 the lack of adequate information and specific delisting targets with which to evaluate these BUIs led the Cuyahoga RAP to list them as “Unknown”. With the development of the delisting targets and the above information these impairments are now no longer considered to be “Unknown” and should therefore be updated to a listing of “Not Impaired”. The updated impairment status for these beneficial uses is summarized below:

Cuyahoga River Area of Concern	Beneficial Use Impairment					
	Degradation of Wildlife Populations		Bird or Animal Deformities or Reproductive Problems		Tainting of Fish or Wildlife Flavor	
	1992 RAP Evaluation	2009 RAP Evaluation	1992 RAP Evaluation	2009 RAP Evaluation	1992 RAP Evaluation	2009 RAP Evaluation
	Unknown	Delist – Not Impaired	Unknown	Delist – Not Impaired	Unknown	Delist – Not Impaired

Delisting of Beneficial Use Impairments in the Cuyahoga River Area of Concern

With a recognized delisting, the Cuyahoga River RAP Coordinating Committee and the Ohio EPA, would be able to celebrate the noted improvements in fish and benthos in the Cuyahoga River Area of Concern. The acceptance of a formal change in status will give added weight to RAP stakeholders protection efforts in the lower Cuyahoga River watershed. A formal delisting would allow the RAP a better position in influencing local decision-makers to enact more environmental friendly development practices such as riparian & wetland setback ordinances, and/or “no net gain” in impervious surfaces as part of their municipal storm water management programs. These measures would be protective of the fish and benthic macro-invertebrate communities as well as enhance the efforts to improve the water and habitat quality throughout Area of Concern.

Therefore, the Cuyahoga River RAP Coordinating Committee, on the fortieth anniversary of the 1969 river fire that ignited the environmental movement in America, requests a delisting of the Degradation of Fish Populations, Degradation of Benthos, Loss of Fish Habitat, Fish Tumors or Other Deformities beneficial use impairments in the segments and tributaries noted above and an updated listing of Degradation of Wildlife Populations, Bird or Animal Deformities or Reproductive Problems and Tainting of Fish and Wildlife Flavor beneficial use impairments from “Unknown” to “Not Impaired”.

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