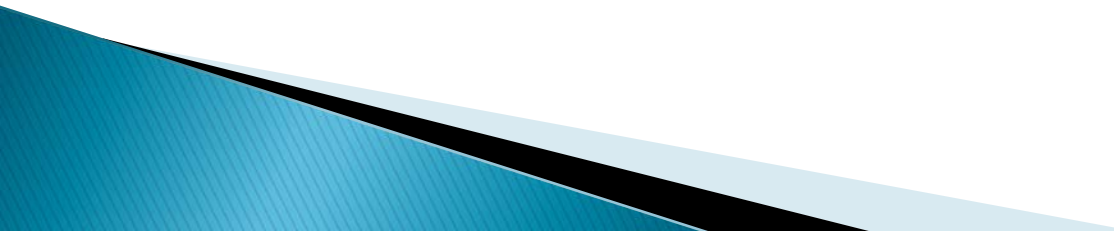


2010 305b Update

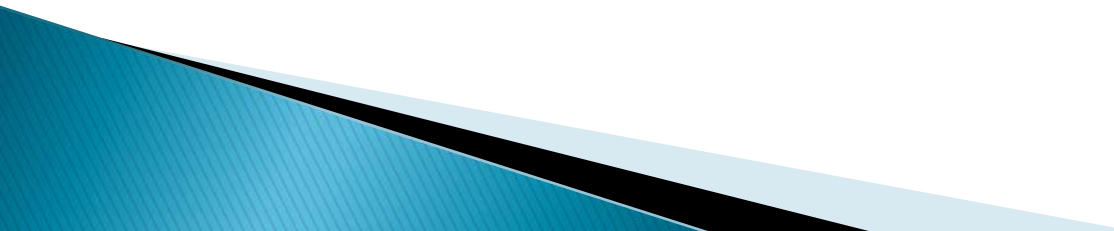
192nd Technical Committee Meeting

2009 Revision

- ▶ Section II Definitions Added:
 - Public Water Supply System
 - Reasonable Treatment

 - ▶ Section IV Water Quality Criteria
 - Aquatic Life criteria adjusted for cadmium & silver to reflect USEPA's current recommendation
 - Cadmium went from 2.01 to 1.03 ug/L.
 - Silver went from 1.0 to 0.98 ug/L.
 - Acute values @ Hard 50 mg/L
- 

Section IV Revisions (cont.)

- ▶ Added 1 mg/L Total ammonia criterion at public water supply point of withdrawal.
 - ▶ Adopted Ohio River specific metals translators to replace USEPA's national default values.
 - ▶ Translators allow for total recoverable effluent limits based on dissolved instream criteria.
- 

Section IV Revisions (cont.)

- ▶ Adjusted 15 human health criteria to reflect USEPA's current recommendation.
 - 13 more stringent, 2 less stringent.
- ▶ Added language to site-specific criteria development section to allow for "other methods approved by USEPA."

Section V Wastewater Discharge Requirements

- ▶ Added requirement that “Industrial waste treatment facilities shall notify ORSANCO of all upsets and bypasses within 2 hours of their discovery.”

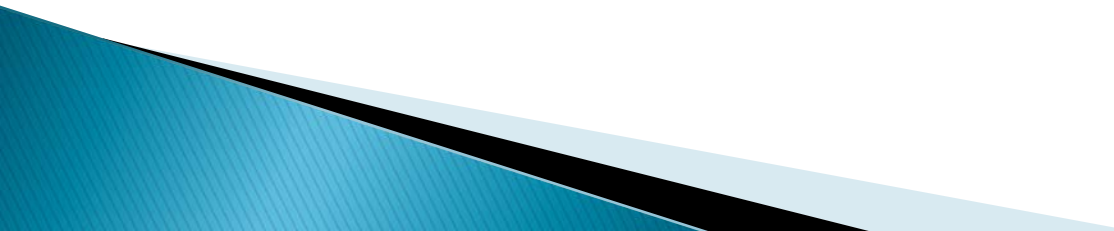
2010 Expedited Review of Standards

- ▶ Specification of design flow for Section IV.C human health criteria.
 - Initial proposal is for use of 7Q10 low flow values.
- ▶ Addition of TDS criteria
 - Initial proposal for drinking water aesthetic values of 500 mg/L monthly avg, 750 mg/L max.
- ▶ Selenium
 - Initial proposal to adopt USEPA's draft criterion when available (presuming that their draft will be adopted based on comments received).


2010 Expedited Review of Standards (cont.)

- ▶ Application of the variance procedure to Section VI Mixing Zone Requirements.
 - MZs being eliminated for BCCs Oct. 2013.

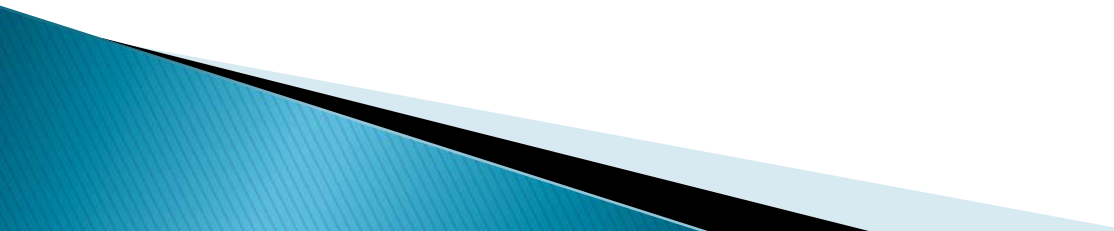
Expedited Review Schedule

- ▶ Initial public comment period open until April 16, 2010.
 - ▶ Workshops to support initial comment period:
 - March 16 – Holiday Inn Meadowlands, Washington, PA.
 - March 17 – Pullman Plaza, Huntington, WV.
 - March 23 – Holiday Inn Airport, Erlanger, KY (NKY).
 - March 24 – Aztar Hotel, Evansville, IN
 - All meetings 4–7pm
 - ▶ Hearing in August, 2010.
 - ▶ Adopt 2010 Revisions October, 2010.
- 

Ohio River 305b Assessment 2010 PROPOSED

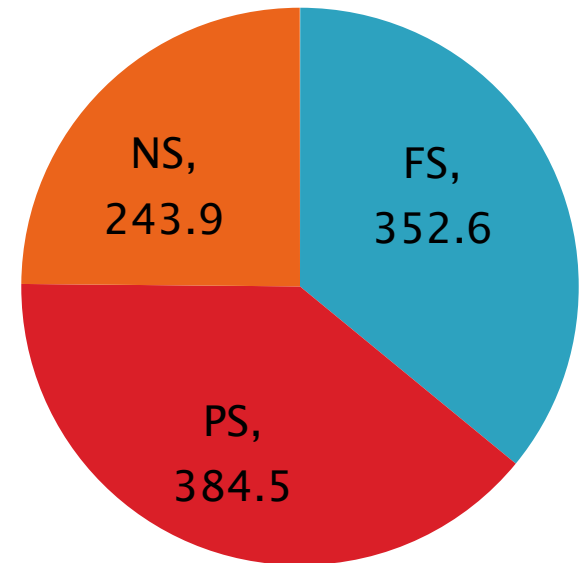
- ▶ Moved to a 5 year assessment period 2005–2009.
 - ▶ Assess the Ohio River for aquatic life, water supply, contact recreation & fish consumption.
 - ▶ Retained the “Partial Support Category”.
 - ▶ Assessments coordinated with state 305b coordinators.
- 

Public Water Supply

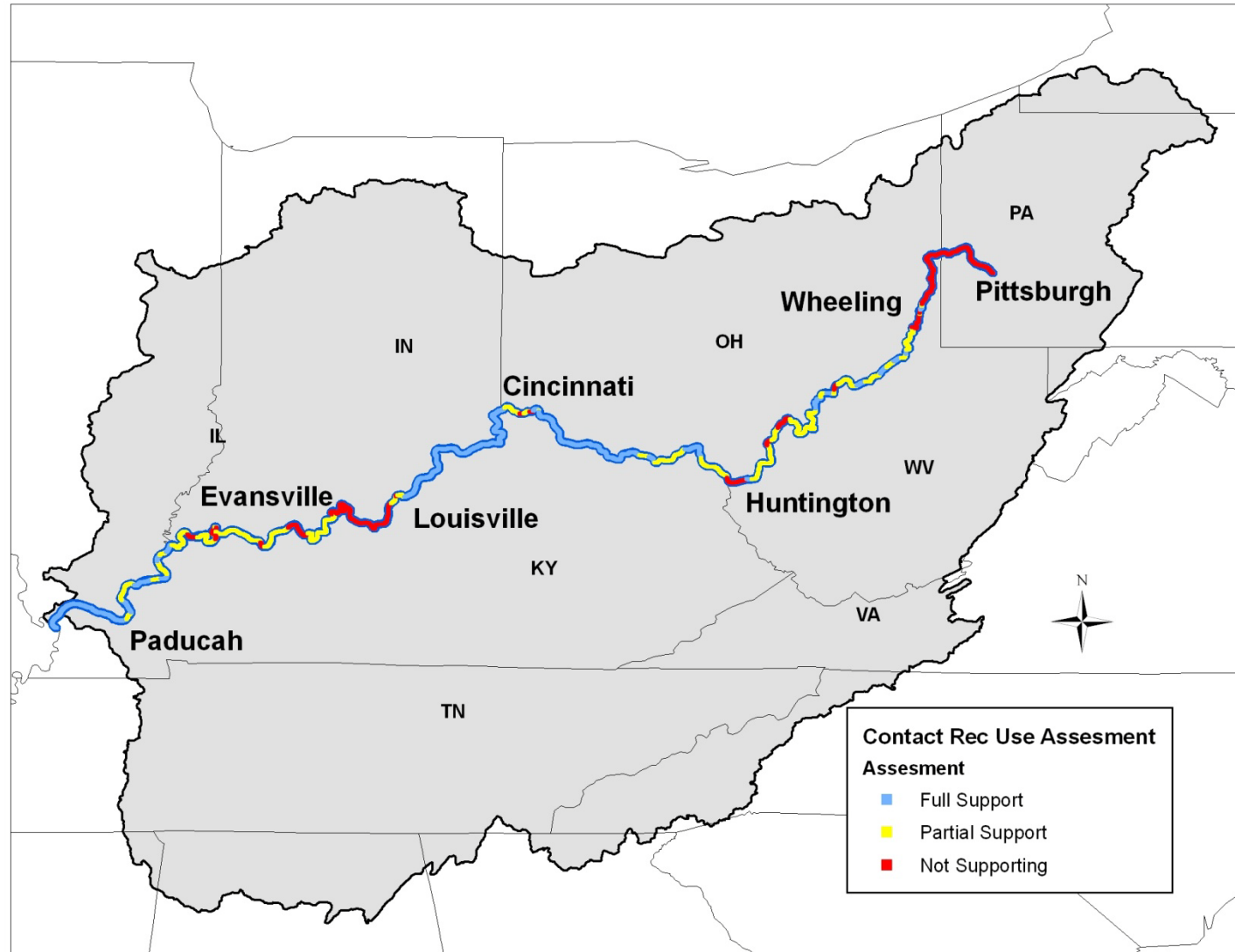
- ▶ 17 bimonthly/clean metals monitoring stations – 10% or greater .
 - ▶ Survey sent to water utilities as for:
 - MCL finished water violations caused by source water.
 - Chronic need to close intake or provide “nonroutine” treatment to meet MCLs.
 - ▶ Entire river supports public water supply use.
- 

Contact Recreation

- ▶ Ambient bacteria monitoring program in 6 largest CSO communities.
- ▶ Special longitudinal bacteria surveys (approx. 15 rounds) of the entire river.
- ▶ > 10% violations – Partial Support.
- ▶ >25% violations – Not Supporting.



Contact Recreation Use Impairments

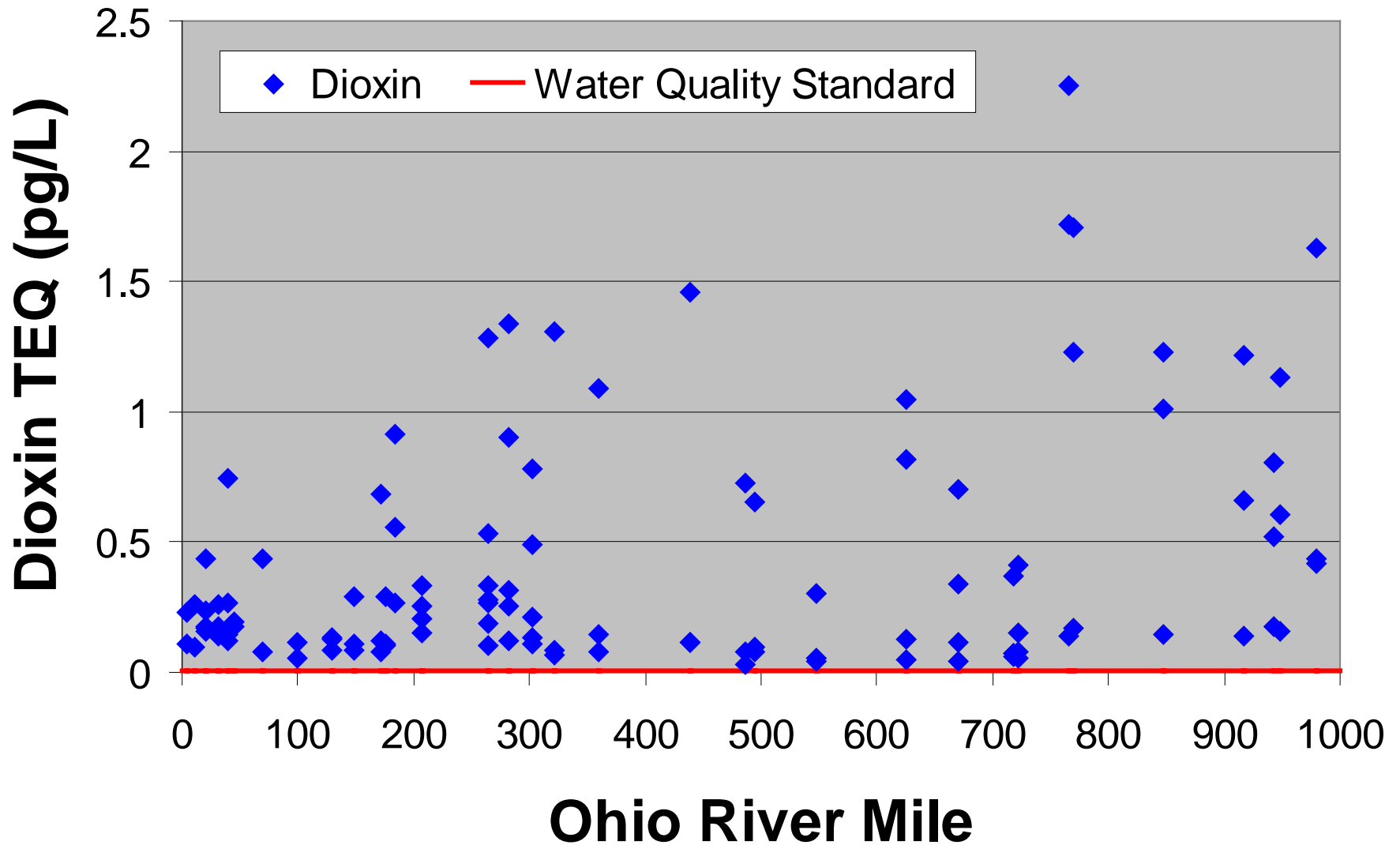


Fish Consumption

- ▶ Based on water quality & fish tissue data.
- ▶ Historic data collected on PCBs & dioxin indicate “Partial Support” which will be retained for 2010 assessment.

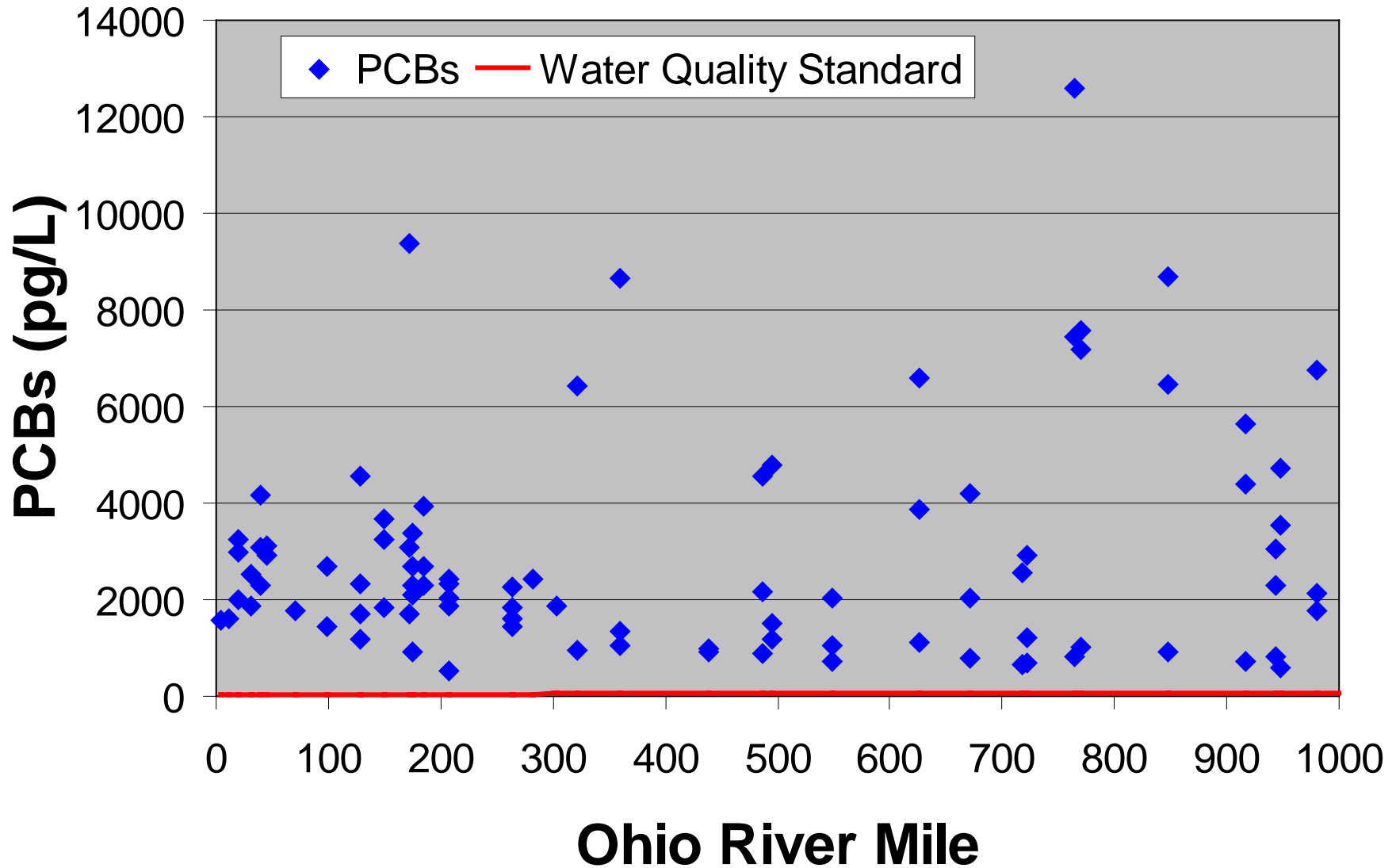
Dioxin Levels in the Ohio River

1997 - 2004



PCB Levels in the Ohio River


1997-2004



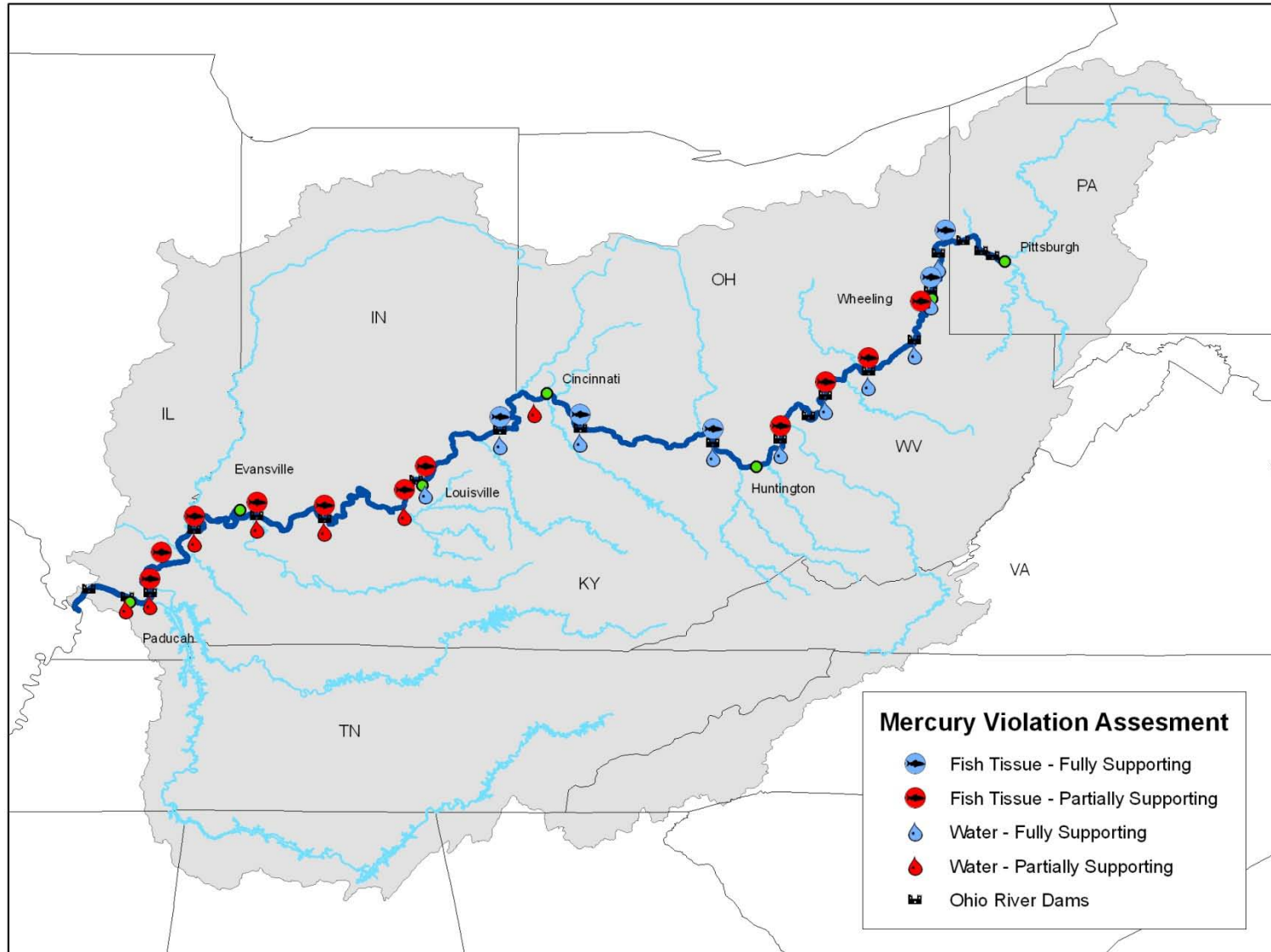
Mercury

- ▶ ORSANCO Hg criteria
 - 0.012 ug/L Total mercury in water.
 - 0.3 mg/kg fish tissue criterion.
- ▶ 2008 assessment there was one lone tissue exceedance and 5 water quality stations with >10% exceedance rate.
- ▶ Based on weight of evidence approach with the driver being the tissue criterion, no impairment indicated.

2010 Assessment Based on Mercury

- ▶ In 2009, collected large, trophic level 4, hybrid striped bass.
 - ▶ 8 of 20 samples collected river-wide exceeded the 0.3 mg/kg tissue criterion.
 - ▶ 7 of 17 water quality monitoring stations had > 10% exceedance rate of 0.012 ug/L criterion.
 - ▶ The entire river is covered by fish consumption advisories for mercury.
- 

Mercury Assessment



Mercury in Hybrid Striper Fish Tissue and All Other Criteria Violations

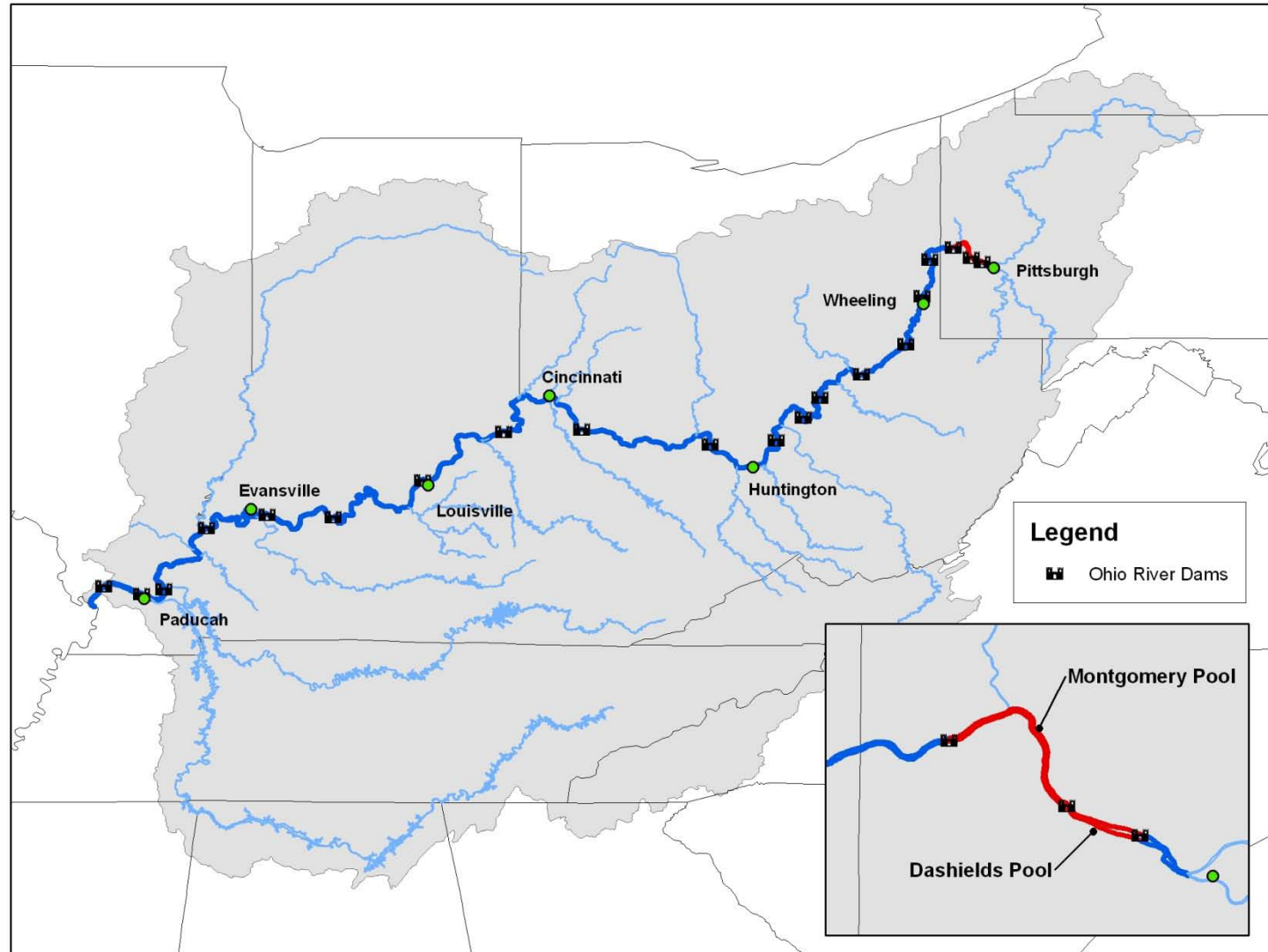
RiverMile	Year	Sample Matrix	Hg (mg/kg)	# Criteria Violations	Impairment Indicated
42.6	2006	FISH	0.082		NO
42.6	2008	FISH	0.081		NO
42.6	2008	FISH	0.087		NO
54.4		OHIO RIVER WATER		0	NO
84.0	2007	HYBRID STRIPER	0.068		NO
84.2		OHIO RIVER WATER		1	NO
105.0	2009	HYBRID STRIPER	0.19		NO
105.0	2009	HYBRID STRIPER	0.23		NO
105.0	2009	HYBRID STRIPER	0.32		YES
126.4		OHIO RIVER WATER		1	NO
161.7	2006	FRESHWATER DRUM	0.32		YES
161.7	2009	HYBRID STRIPER	0.28		NO
161.8		OHIO RIVER WATER		2	NO
203.9	2009	HYBRID STRIPER	0.26		NO
203.9	2009	HYBRID STRIPER	0.28		NO
203.9	2009	HYBRID STRIPER	0.34		YES
203.9		OHIO RIVER WATER		0	NO
279.0	2008	HYBRID STRIPER	0.33		YES
279.2	2009	HYBRID STRIPER	0.2		NO
279.2		OHIO RIVER WATER		1	NO
341.0		OHIO RIVER WATER		2	NO
341.5	2009	HYBRID STRIPER	0.26		NO
436.2		OHIO RIVER WATER		0	NO
436.5	2009	HYBRID STRIPER	0.23		NO
436.5	2009	HYBRID STRIPER	0.27		NO
436.5	2009	HYBRID STRIPER	0.29		NO
477.5		OHIO RIVER WATER		5	YES
531.5	2005	HYBRID STRIPER	0.044		NO
531.5		OHIO RIVER WATER		1	NO
532.0	2009	HYBRID STRIPER	0.2		NO
600.6		OHIO RIVER WATER		2	NO
606.8	2009	HYBRID STRIPER	0.4		YES
625.9		OHIO RIVER WATER		24	YES
626.0	2007	FRESHWATER DRUM	0.39		YES
720.7	2006	HYBRID STRIPER	0.16		NO
720.7		OHIO RIVER WATER		7	YES
720.8	2009	HYBRID STRIPER	0.33		YES
776.0		OHIO RIVER WATER		7	YES
776.5	2009	HYBRID STRIPER	0.25		NO
776.5	2009	HYBRID STRIPER	0.33		YES
776.5	2009	HYBRID STRIPER	0.33		YES
846.0	2009	HYBRID STRIPER	0.3		YES
846.0		OHIO RIVER WATER		5	YES
890.0	2007	SAUGER	0.3		YES
918.0	2008	SPOTTED BASS	0.35		YES
918.0	2008	COMMON CARP	0.36		YES
918.5		HYBRID STRIPER	0.34		YES
918.5		OHIO RIVER WATER		5	YES
939.9		OHIO RIVER WATER		9	YES

Aquatic Life Assessment

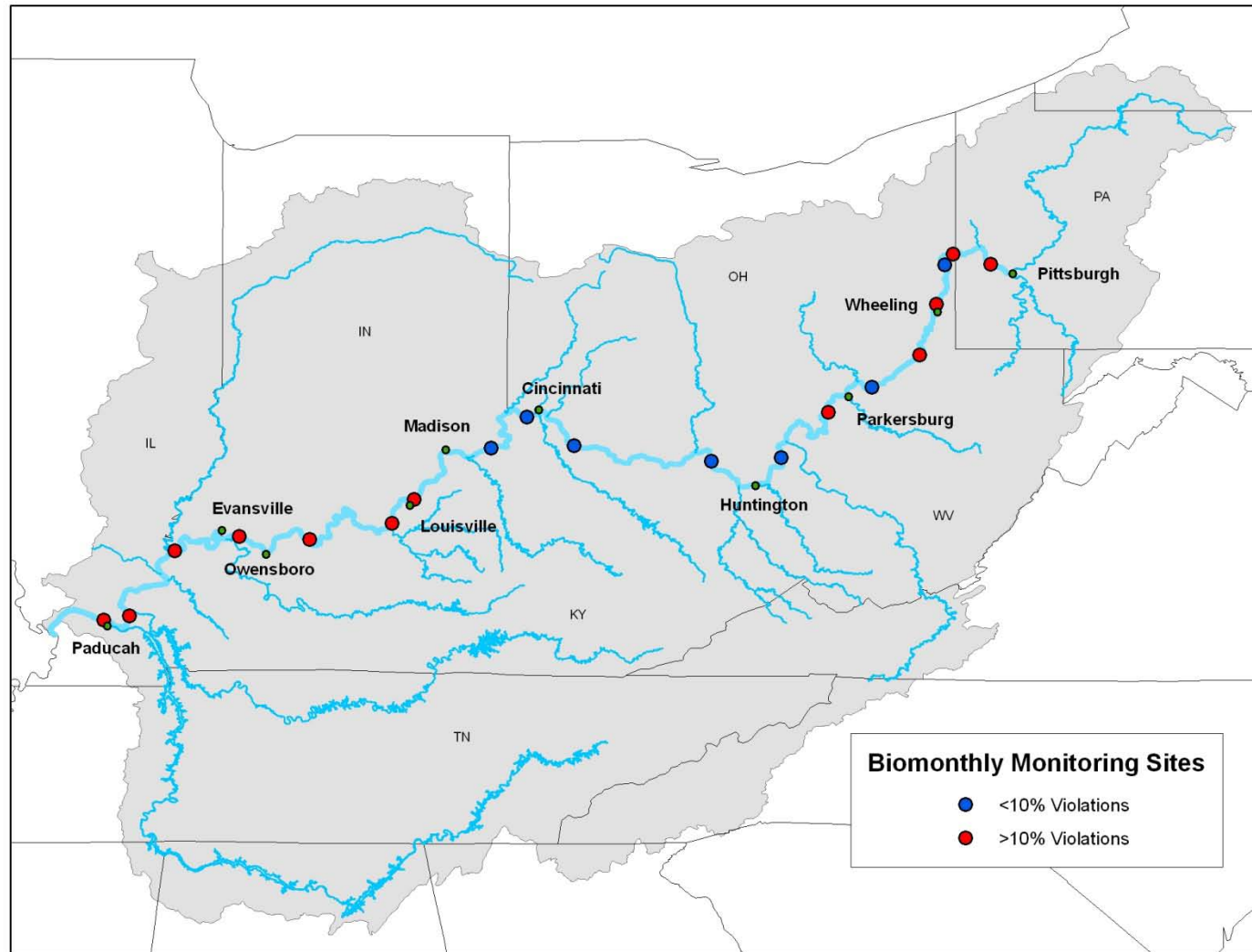
- ▶ Biological data indicates impairment for Dashiels & Montgomery pools based on recommendation of the Biological Subcommittee.
 - ▶ Dissolved Oxygen data at Cannelton >10 % exceedance. indicates impairment.
 - ▶ States' Iron criteria >10% exceedance at 12 of 19 water quality monitoring stations.

PA – 1500 ug/L	KY – 3500 ug/L
WV – 1500 ug/L	IN – 2490 ug/L
- * ORSANCO has no criterion.

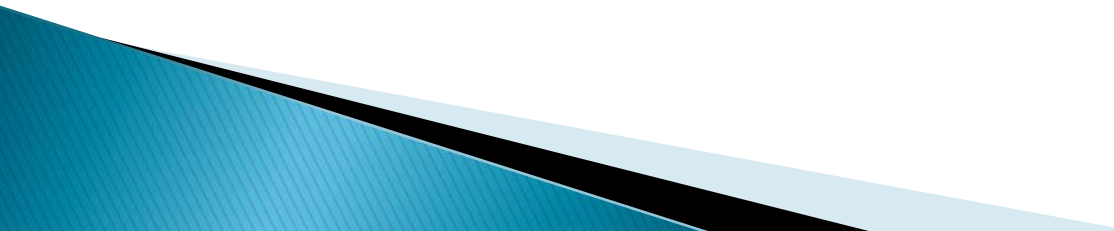
Biological Impairments



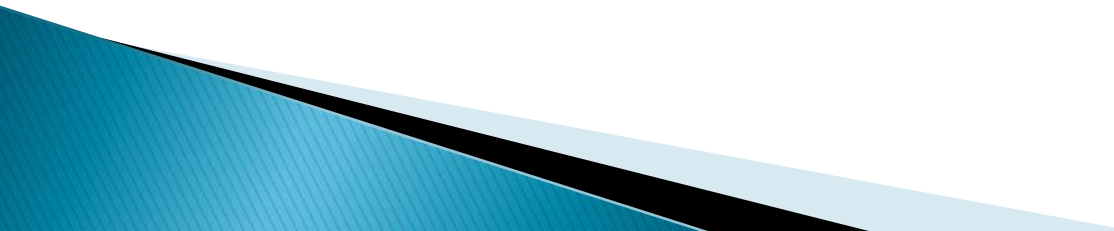
Stations with Iron Violations



Significant Differences in States Approaches

- ▶ PA – Developing large river biocriteria in next couple of years. Does not want to list until PA methodology in place.
 - ▶ WV – Region 3 requires Independent Application therefore needs to list impairments.
 - ▶ OH – Doesn't list Ohio River.
 - ▶ KY – Uses Weight of Evidence Approach & does not wish to list impairments.
 - ▶ IN – Uses Independent Application therefore needs to list impairments.
 - ▶ IL – Has dissolved criteria – not an issue.
- 

What Does ORSANCO's Report Say?

- ▶ There is a significant benefit to states from ORSANCO compiling and assessing Ohio River data.
 - ▶ Problematic having significantly different assessment approaches on the same water body.
 - ▶ Options seem to include:
 - 1) TEC/Commission establish a unified methodology.
 - 2) EPA approves 303d lists – leave it to them.
 - 3) ORSANCO simply write up the situation and not make an assessment.
- 

TEC Decision

- ▶ 1) Decide what ALUS should say for the Ohio River.
- ▶ 2) Approve Assessments.