

Fox River PCB cleanup

National Sediment Forum

**James Hahnenberg
U.S. EPA
October 22, 2009**



Topics today

- Cleanup update
- “Issues”

OU 1

2004 – 2009

790,000 cy

\$100 million

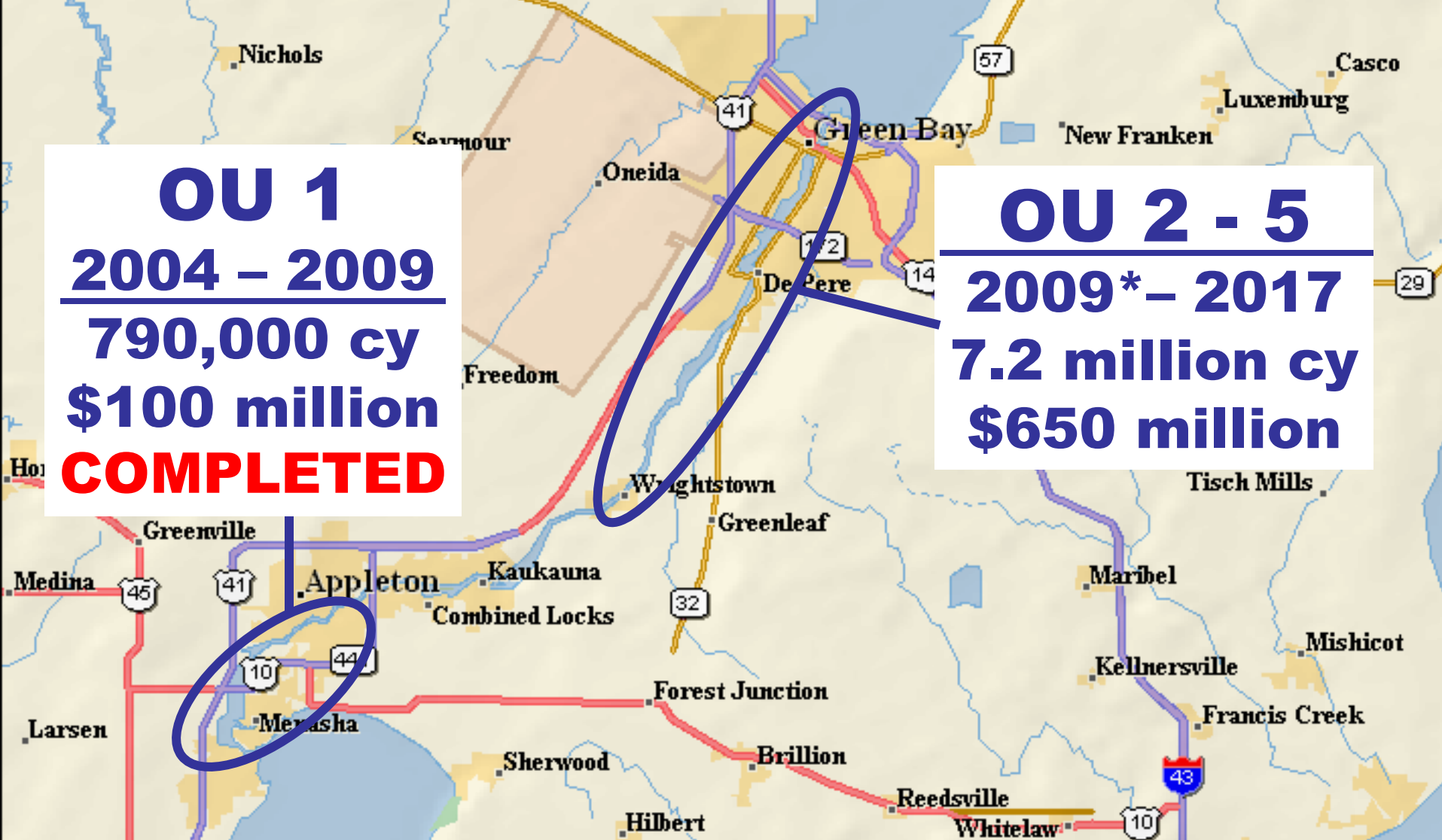
COMPLETED

OU 2 - 5

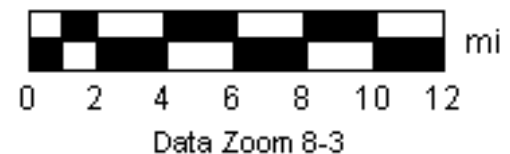
2009* – 2017

7.2 million cy

\$650 million



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*** Phase 1 in 2007**

The plan

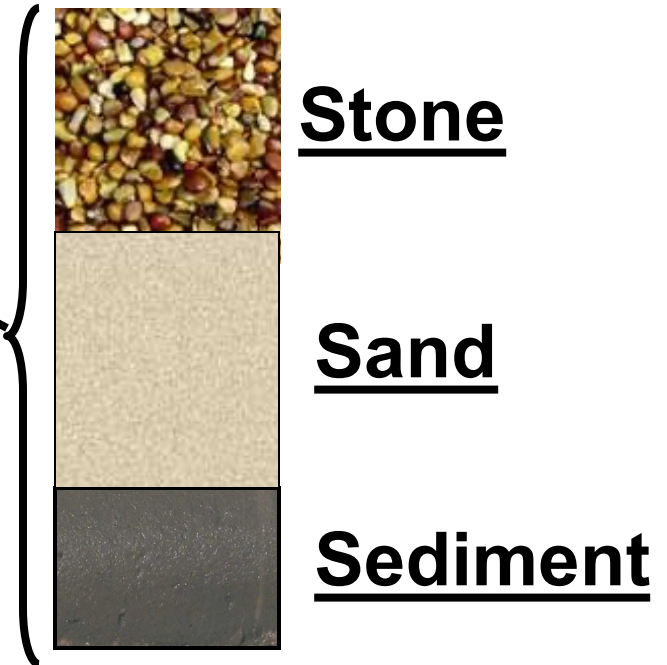
- Dredging/disposal →



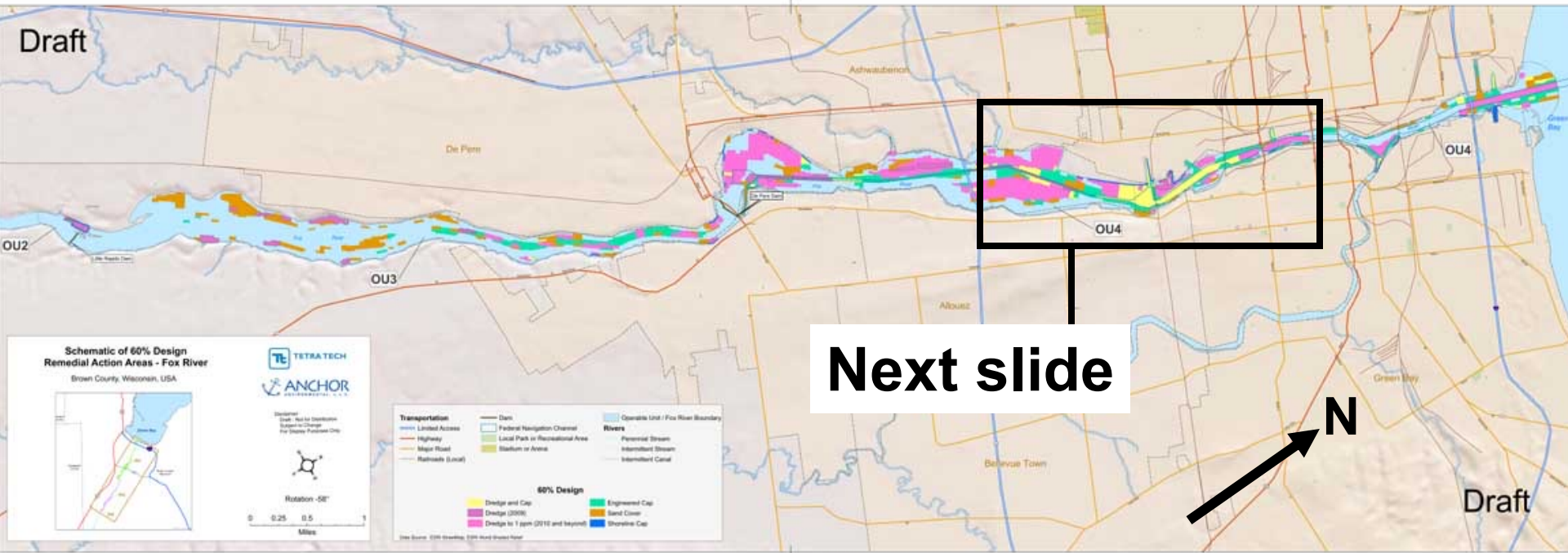
- Caps

- Sand covers

- Cap monitoring & maintenance



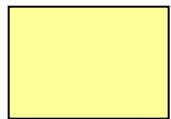
OU 2 - 5 Cleanup plan



Dredging



Cap (sand and gravel)



**Dredge
and Cap**

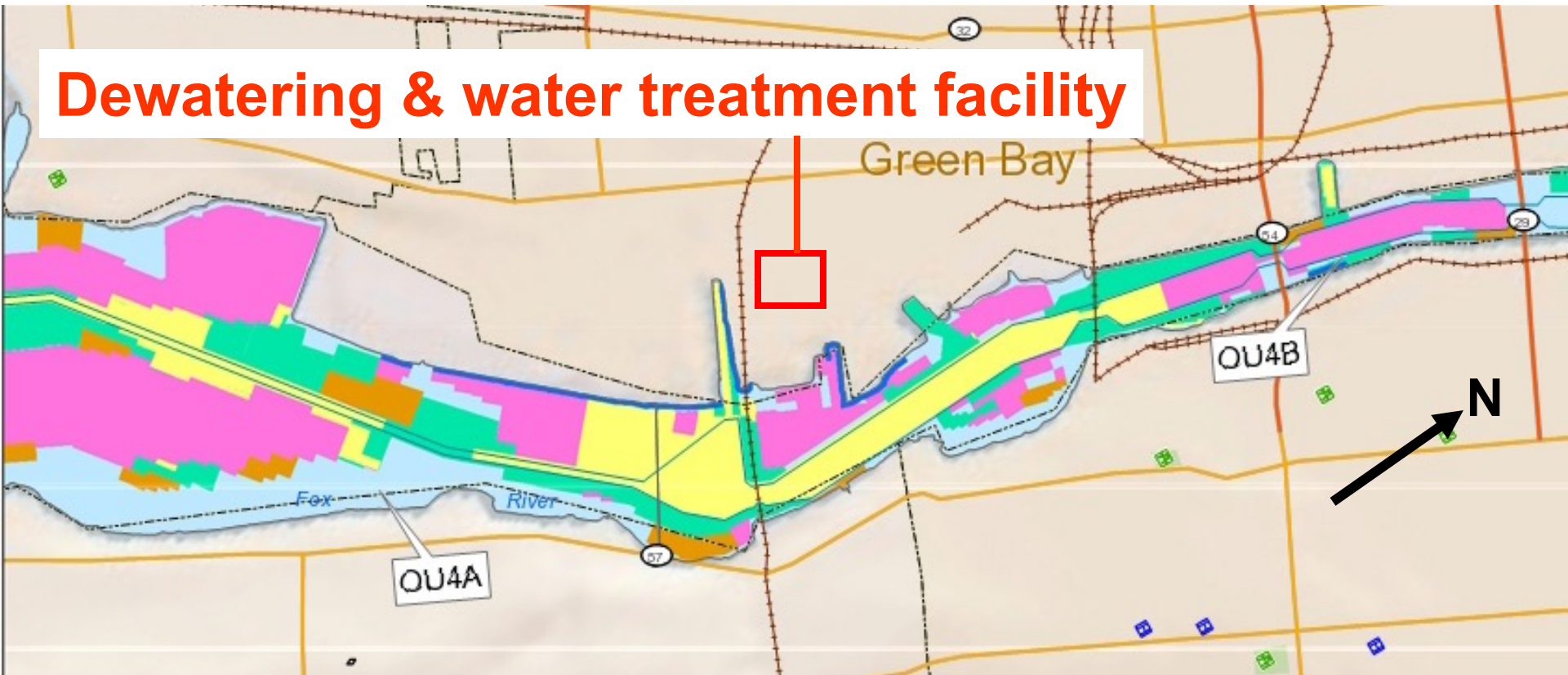


Cover (sand only)

Courtesy of Tetra Tech

OU 2 - 5 Cleanup plan

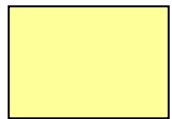
Dewatering & water treatment facility



Dredging



Cap (sand and gravel)



**Dredge
and cap**



Cover (sand only)

Courtesy of Tetra Tech

Dewatering facility construction



From: TetraTech weekly QC report

Dewatering and water treatment facility



Photo courtesy of TetraTech

OU 2 - 5 cleanup 2009 start

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POWERED BY YOU AND THE GREEN BAY PRESS-GAZETTE

Fox River dredging to begin this week

BY TONY WALTER • TWALTER@GREENBAYPRESSGAZETTE.COM • APRIL 27, 2009

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The Lower Fox River cleanup is expected to start making history this week.

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2009 ESCALADE

The dredging, dewatering and transporting of PCB-contaminated sediment were scheduled to begin today, but a spokesman for the three major paper mills involved in the project said the work will probably start Tuesday instead.

Tetra Tech Inc., the general contractor hired by the paper mills to complete the work, was still without a long-term contract Friday.

♦ [More on the Fox River cleanup.](#)

The eight paper mills named by the U.S. Environmental Protection Agency as potential responsible parties in polluting the river, have been ordered by the government to start the dredging by Friday.



A worker welds at the dewatering facility at 1611 State St., Green Bay, in preparation for the Fox River PCB dredging project, which is scheduled to begin this week prior to the federal government's Friday deadline. H. Marc Larson/Press-Gazette

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FOX RIVER CLEANUP PROJECT



Dredge cutterhead



Photo courtesy of Boldt

Pre-thickener



Photos courtesy of TetraTech

Plate and frame presses to dewater dredge slurry



Photo courtesy of Boldt

Sediment storage area



Green Bay Press Gazette photo

Loading



Disposal

Photo courtesy of Boldt

Sediment disposal at landfill



Photo courtesy of Boldt

2009 dredging progress

- **As of 10-3-09: 407,000 cubic yards**
- **Projected to November 14th:
519,000 cubic yards*
(volume of ~7 Walmarts)**

*** ~15% more than 2009 target**

Timeline

2009 **OU 2 - 5 cap/cover** 2017

2009 **OU 2 - 5 dredging** 2015

OU 1 2009



“Issues”

- **Boater safety**
- **Noise from pipeline booster pumps**
- **Truck traffic to disposal facility**
- **Navigation dredging**

In-water pipeline from dredge to dewatering facility





Photo courtesy of Boldt

09.19.2009 10:36

Boating incidents



Photo courtesy of TetraTech

Noise from dredge pipeline pumps



Photo courtesy of Boldt

Monitoring truck speed



Photos courtesy of TetraTech

Navigation matters



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POWERED BY YOU AND THE GREEN BAY PRESS-GAZETTE

Port of Green Bay concerned that order to halt dredging of PCBs on Fox River will harm shipping

BY TONY WALTER • TWALTER@GREENBAYPRESSGAZETTE.COM • OCTOBER 14, 2009

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The U.S. Department of Justice has ordered the Army Corps of Engineers to halt dredging in the 3.3-mile Fox River navigational channel through downtown Green Bay, a move it says will prevent the spread of PCB sediment, but that port officials say could seriously hurt the shipping business.

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County officials say they also are concerned that the Fox River cleanup project's final design plan, expected to be completed in early 2010, might include placing sand and gravel over contaminated river bottom in the two places where large ships need to turn around, which could hinder their movements.

But Bruce Baker, deputy administrator of the DNR's water division, said



The lakes carrier Arthur M. Anderson unloads coal Thursday at the C. Reiss Coal Co. in Green Bay. H. Marc Larson/Press-Gazette

Areas of concern

Dredging of two turning basins on the Fox River has created conflicts between the port and the government agencies overseeing the cleanup.

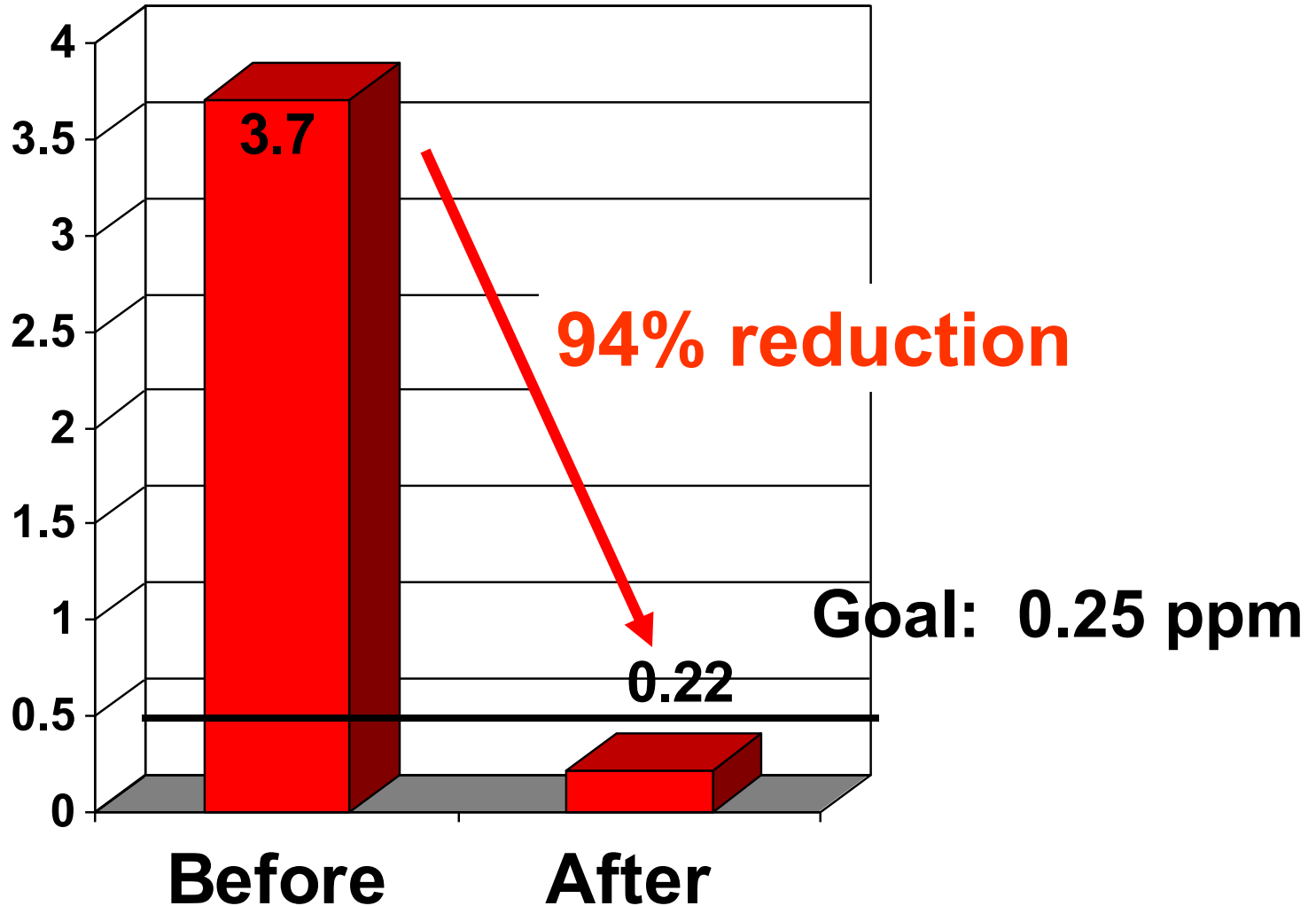


ON THE WFR

Benefits/results

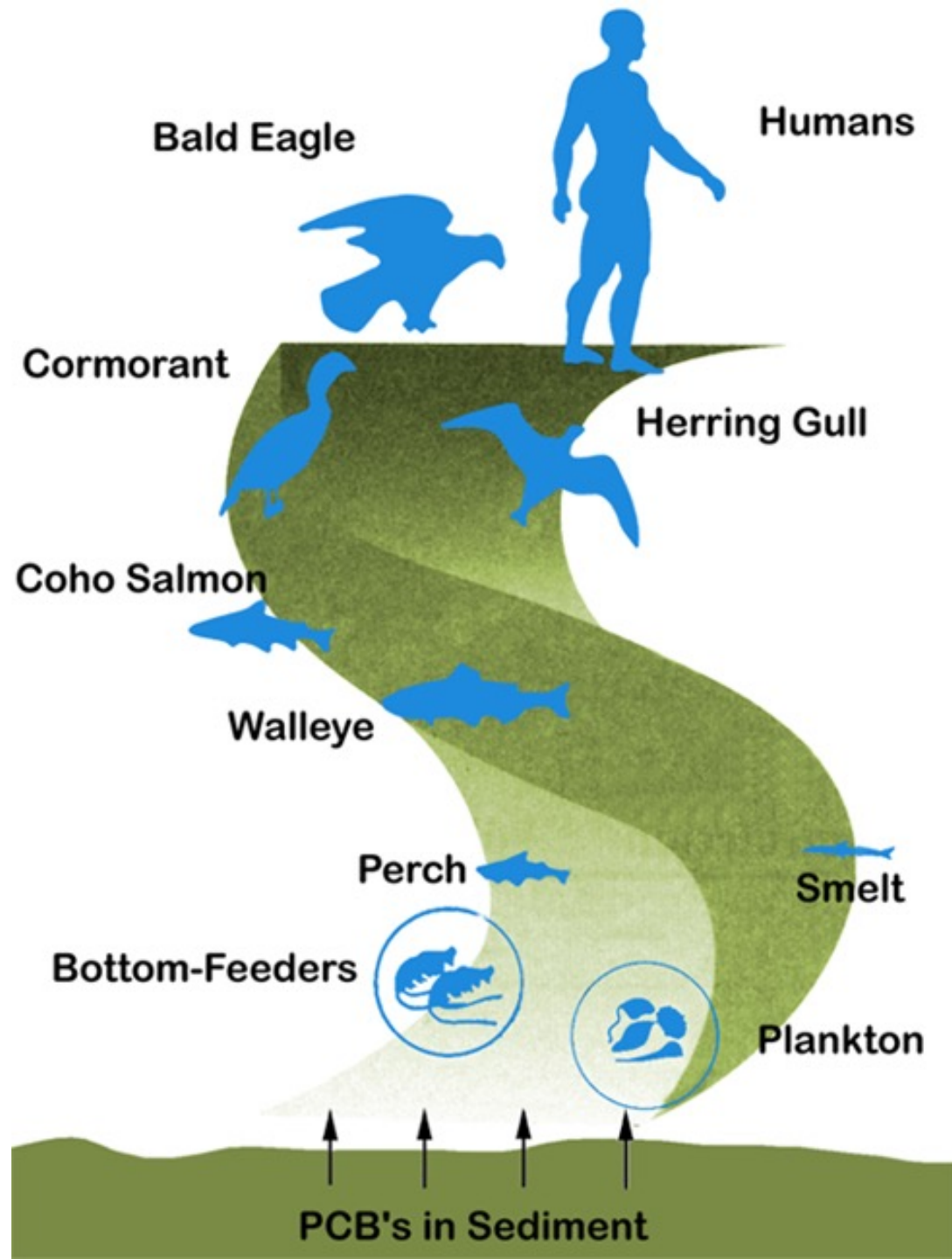
OU 1

PCB concentration (ppm)



Reduce PCB exposure

- Human health
 - Cancer
 - Non-cancer
- Ecological



Prognosis appears good for Fox River

Milwaukee Journal

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Lee Bergquist

Despite pollution problems, the Fox River has attracted development, including luxury housing. The boat in the foreground, part of the massive cleanup project along the 39-mile lower segment of the Fox, carries booster pumps that send contaminated river sediments to a processing plant.

As the cleanup of toxic chemicals along the Fox River prepares to pause for winter, the project is ahead of schedule - but the price tag has grown.

By Lee Bergquist of the Journal Sentinel

Posted: Sept. 29, 2009

Questions

