

# Fox River PCB cleanup

## National Sediment Forum

James Hahnenberg  
U.S. EPA  
October 22, 2009

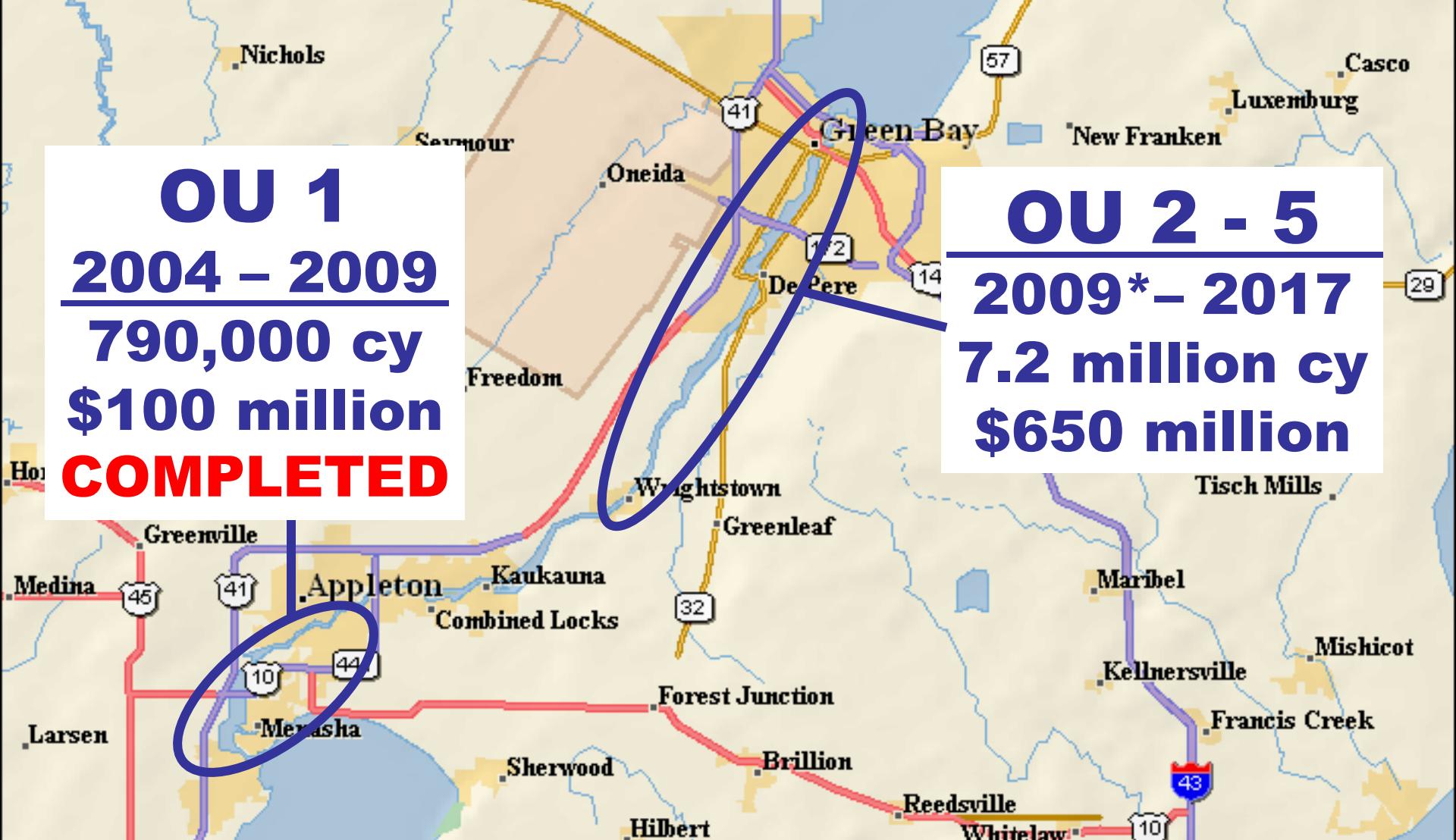


# Topics today

- Cleanup update
- “Issues”

**OU 1**  
**2004 – 2009**  
**790,000 cy**  
**\$100 million**  
**COMPLETED**

**OU 2 - 5**  
**2009\* – 2017**  
**7.2 million cy**  
**\$650 million**



Data use subject to license.  
© 2004 DeLorme. Topo USA® 5.0.  
[www.delorme.com](http://www.delorme.com)

★  
MN (3.2° W)

mi  
0 2 4 6 8 10 12  
Data Zoom 8-3

\* Phase 1 in 2007

# The plan

- Dredging/disposal →



- Caps

- Sand covers

- Cap monitoring & maintenance



Stone

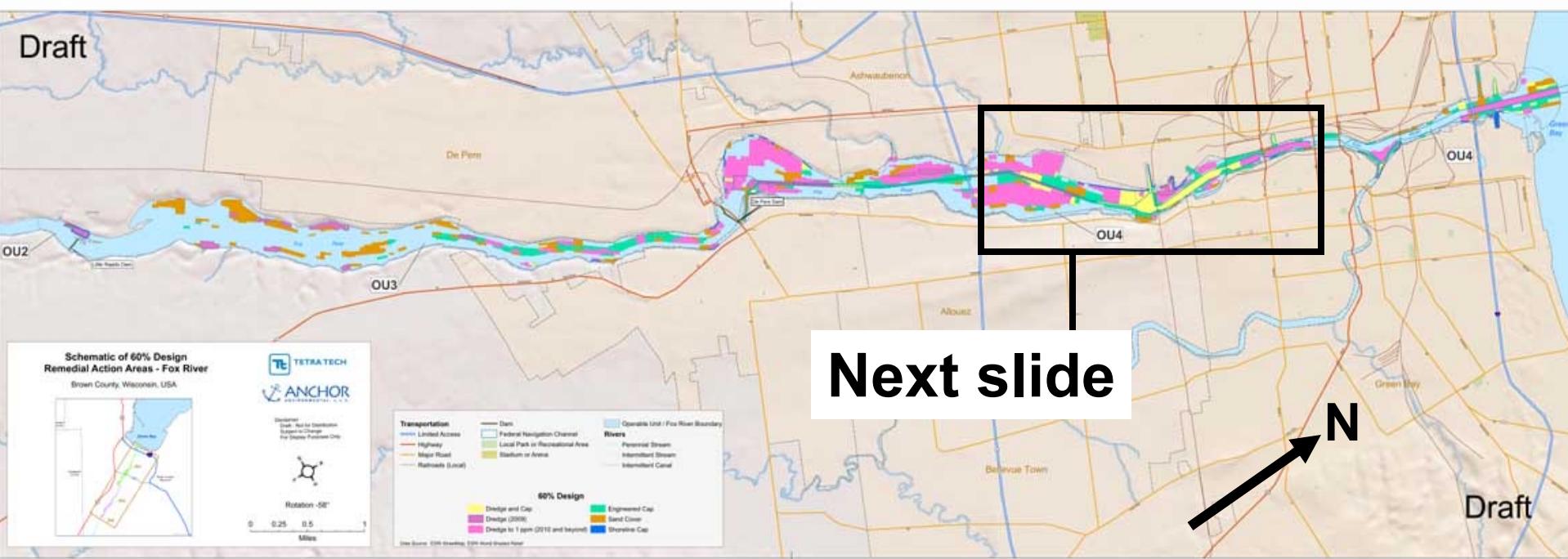


Sand



Sediment

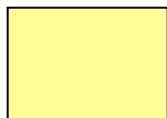
# OU 2 - 5 Cleanup plan



**Dredging**



**Cap (sand and gravel)**



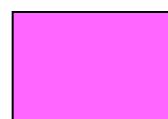
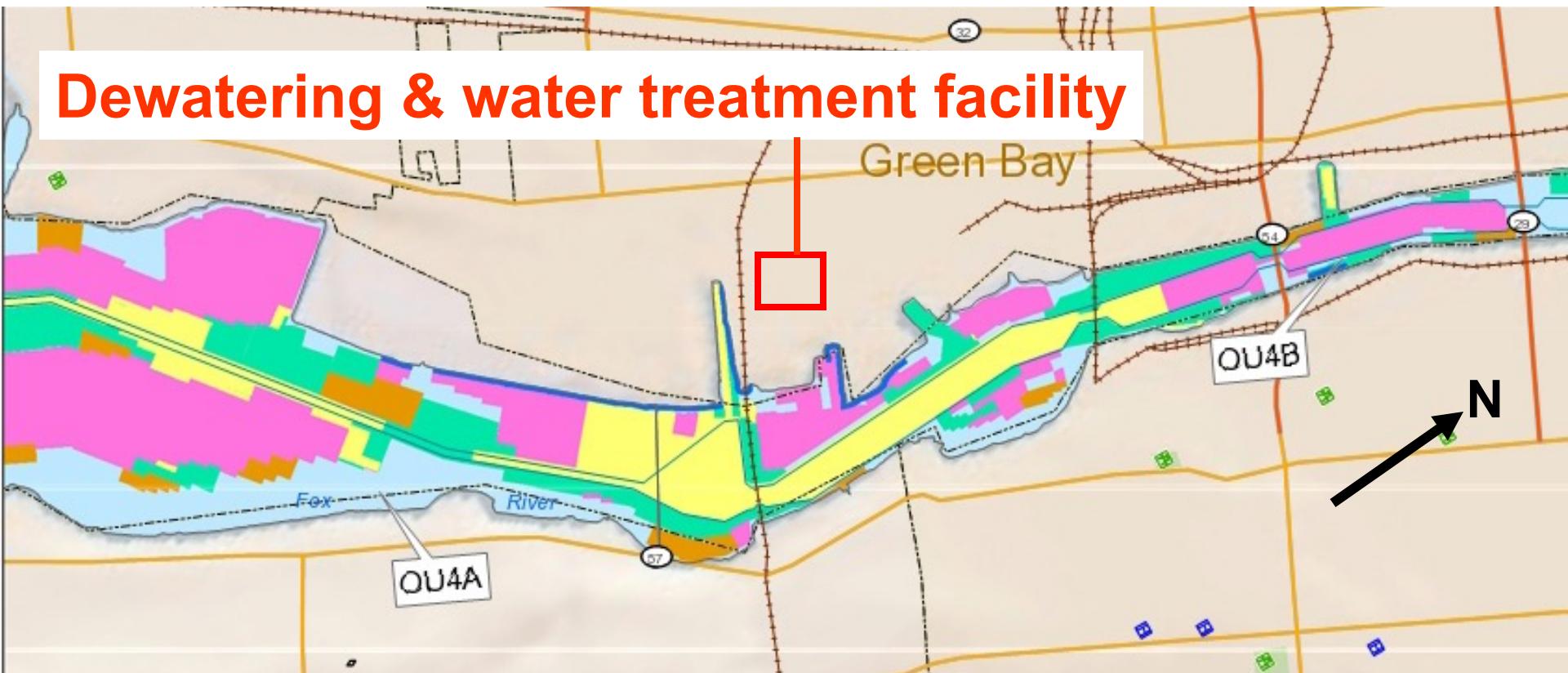
**Dredge  
and Cap**



**Cover (sand only)**

Courtesy of Tetra Tech

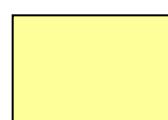
# OU 2 - 5 Cleanup plan



**Dredging**



**Cap (sand and gravel)**



**Dredge  
and cap**



**Cover (sand only)**

# Dewatering facility construction



From: TetraTech weekly QC report

# **Dewatering and water treatment facility**



**Photo courtesy of TetraTech**

# OU 2 - 5 cleanup 2009 start



SEARCH GREEN  
BAY:

All Recent News Events Jobs More »

go

SPONSORED BY:



HOME NEWS PACKERS SPORTS BUSINESS MULTIMEDIA OPINION OBITUARIES ENTERTAINMENT BUY SELL SHOP CUSTOMER SERVICE SUBSCRIBE



Comment, blog & share photos

[Log in](#) | [Become a member](#) | [Search people](#)

POWERED BY YOU AND THE **GREEN BAY PRESS-GAZETTE**

## Fox River dredging to begin this week

BY TONY WALTER • [TWALTER@GREENBAYPRESSGAZETTE.COM](mailto:TWALTER@GREENBAYPRESSGAZETTE.COM) • APRIL 27, 2009

[Read Comments\(4\)](#) [Recommend](#) [Print this page](#) [E-mail this article](#) [Share](#)

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

ADVERTISEMENT

CLICK HERE FOR INFO  
ON THE CADILLAC TOTAL  
CONFIDENCE PROGRAM.

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

[buy photo](#) [zoom](#)

FOX RIVER CLEANUP PROJECT



[zoom](#)

# 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



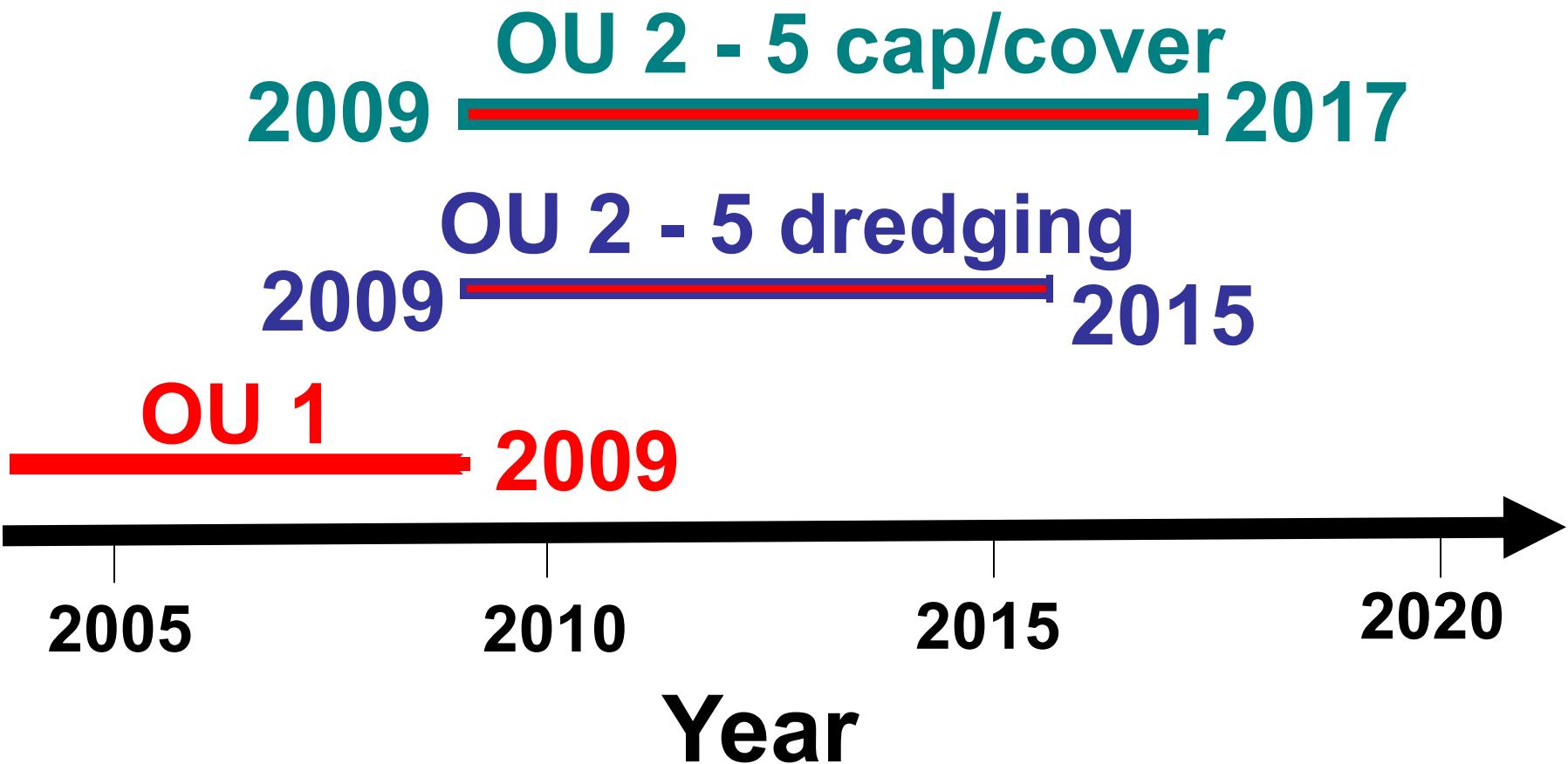
Photo courtesy of Boldt

# 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



# **“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



Comment, blog & share photos

[Log in](#) | [Become a member](#) | [Search people](#)

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](mailto:TWALTER@GREENBAYPRESSGAZETTE.COM) • OCTOBER 14, 2009

[Read Comments\(4\)](#) [Recommend](#) [Print this page](#) [E-mail this article](#) [Share](#)

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.

ADVERTISEMENT



- ◆ [More stories, photos on the Fox River cleanup](#)
- ◆ [Special section: More stories and columns on the environment, plus a daily tip](#)
- ◆ [Sign up for news, weather, Green Bay Packers and high school sports text alerts.](#)

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

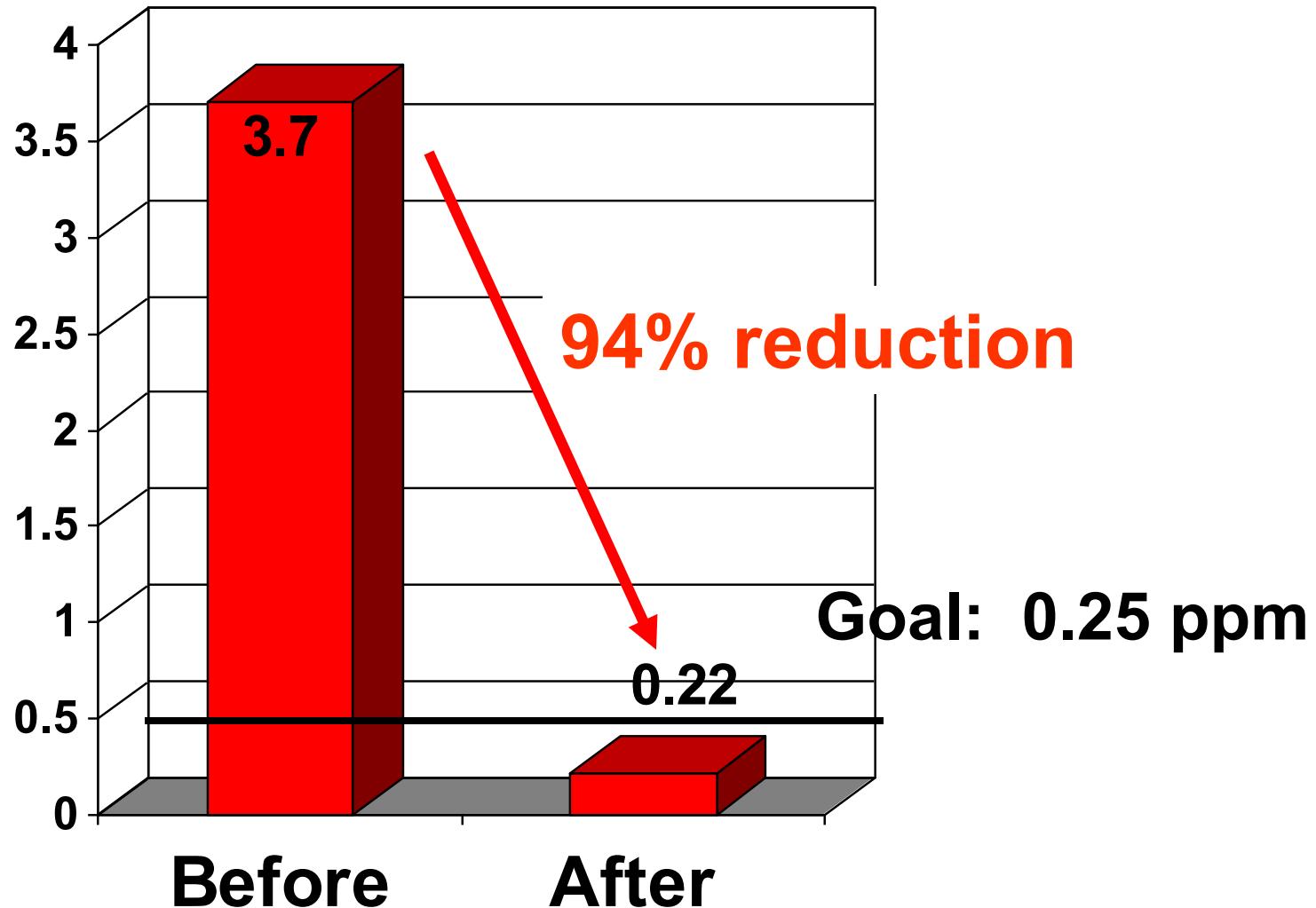


ON THE WFR

# **Benefits/results**

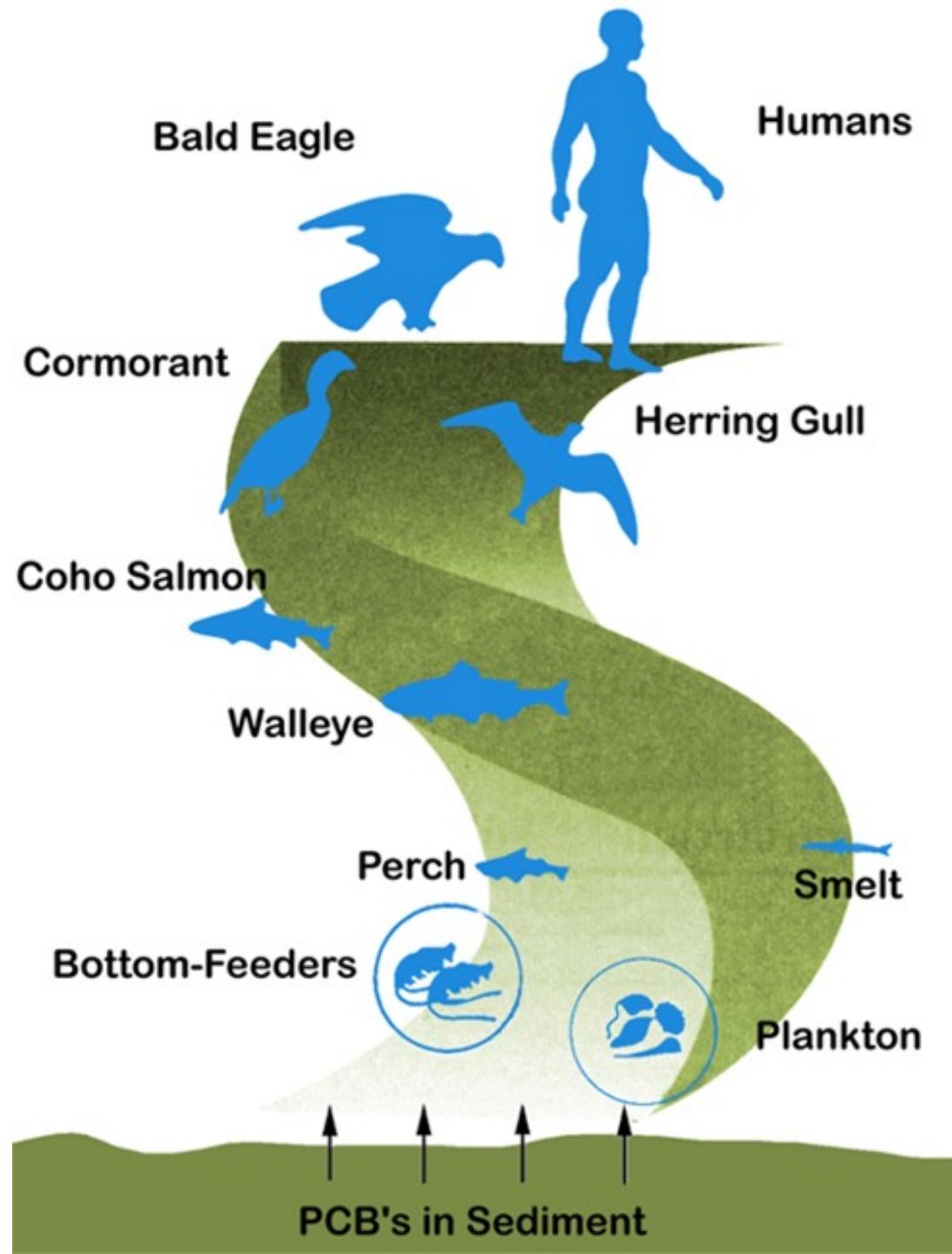
# OU 1

## PCB concentration (ppm)



# Reduce PCB exposure

- Human health
  - Cancer
  - Non-cancer
- Ecological



# Prognosis appears good for Fox River

## Milwaukee Journal



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

### TOP STORIES

- Asian car closer to Michigan fear
- Four plan
- Year off start for violence, says
- Official: I care corner Milwaukee
- Blue Moon struggles position

### MORE NEWS

- Prognosis good for
- Year off start for violence, says
- City is 1 in nation

# Questions

