Anniston PCB Site

CSTAG Stakeholders Meeting
June 22, 2005
Oxford, Alabama

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U.S. Fish & Wildlife Service

Contact Info.

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Role of USFWS at Anniston PCB

- Basically 2 Roles
- **First** : Provide technical assistance to EPA to ensure that the cleanups protect migratory birds, fish, marine mammals and threatened and endangered species.
- **Second** : Conduct a Natural Resource Damage Assessment (NRDA) with fellow natural resource trustees.

The Natural Resource Trustees for the Anniston PCB Site

Alabama Department of Conservation and Natural Resources

For this Site: 2 State Agencies and
1 Federal (USFWS is the Lead Administrative Trustee)

Remedial vs NRDAR - Basics

- EPA led
- Goals are the Overall Protection of Human Health and the Env.
- Reduction of toxicity, mobility or volume through treatment

- Natural Resource Trustee Led
- Goals are to Make the Public WHOLE for injury of their resources with restoration as the endpoint.

Examples of Natural Resources & Services

- Surface water
- Ground water
- Soils
- Sediment
- Benthos
- Mollusks
- Fish
- Reptiles and Amphibians
- Birds
- Mammals
- T&E Plants
- T&E Mollusks
- T&E RCW
- T&E Gray Bat
- T&E Blue Shiner
- T&E Bald Eagle
- Water: Consumptive Use
- Water: Non-Consumptive Us
- Recreational Fishing
- Others?

The NRDAR Process

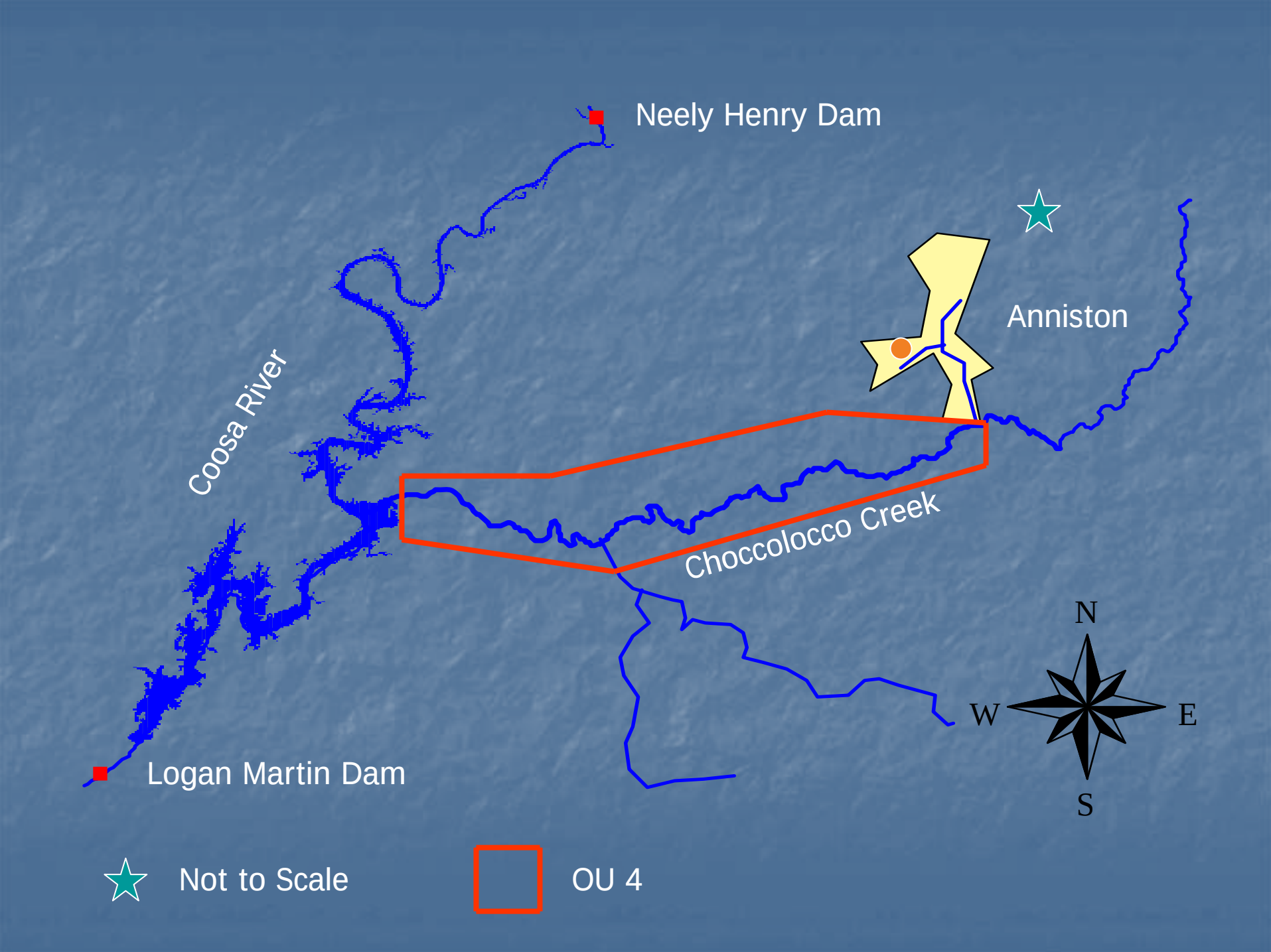
- Basically the recovery of damages (usually $) for injury to, destruction of, or loss of natural resources, including the reasonable costs for assessing such injury, destruction or loss resulting from a release of a hazardous substance. The money is intended to be used to restore, replace or acquire the equivalent of the injured resource.

- Prin. #3 – Effective coordination during this stage could potentially reduce future costs and duplication of efforts

- BASIC GOAL: Reimburse the public for the injuries as a result of the incident if the incident had never occurred through restoration.

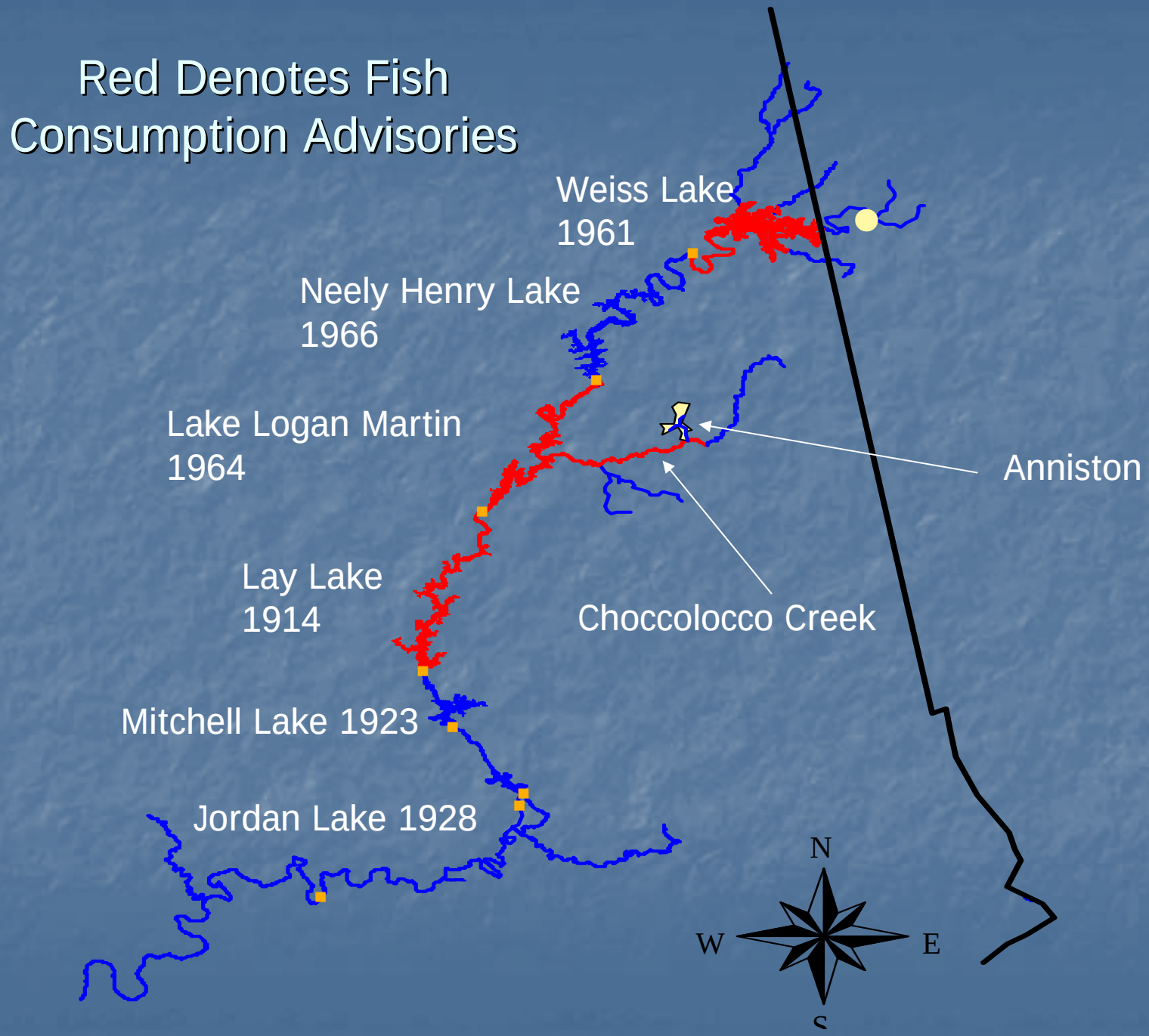
Major Concepts in NRDAR

- Damages (usually $) are for compensation to injuries to natural resources or/and response actions
- Damages ($) are to be used for Restoration
- This is NOT a punitive process!!
- The Public and the PRPs are involved in the process
- On June 16, 2005 Solutia and Pharmacia were sent an invitation letter from USFWS on behalf of the Natural Resource Trustees to participate in a cooperative NRDA.


Neely Henry Dam
Anniston
Coosa River
Choccolocco Creek
Logan Martin Dam
N
W
E
S
Not to Scale
OU 4

Geographic Area – The Site

- OU 4 – Encompasses the length of Choccolocco Creek and its floodplain from the confluence with Snow Creek to Lake Logan Martin
- EPA's Definition: " .... where contamination has come to be located."
- RI/FS : "A decision on what investigations may be required beyond Choccolocco Creek will be made after data from OU-4 RI, and any other studies that become available , are reviewed.


Red Denotes Fish Consumption Advisories
Weiss Lake 1961
Neely Henry Lake 1966
Lake Logan Martin 1964
Anniston
Lay Lake 1914
Choccolocco Creek
Mitchell Lake 1923
Jordan Lake 1928
N
W
E
S

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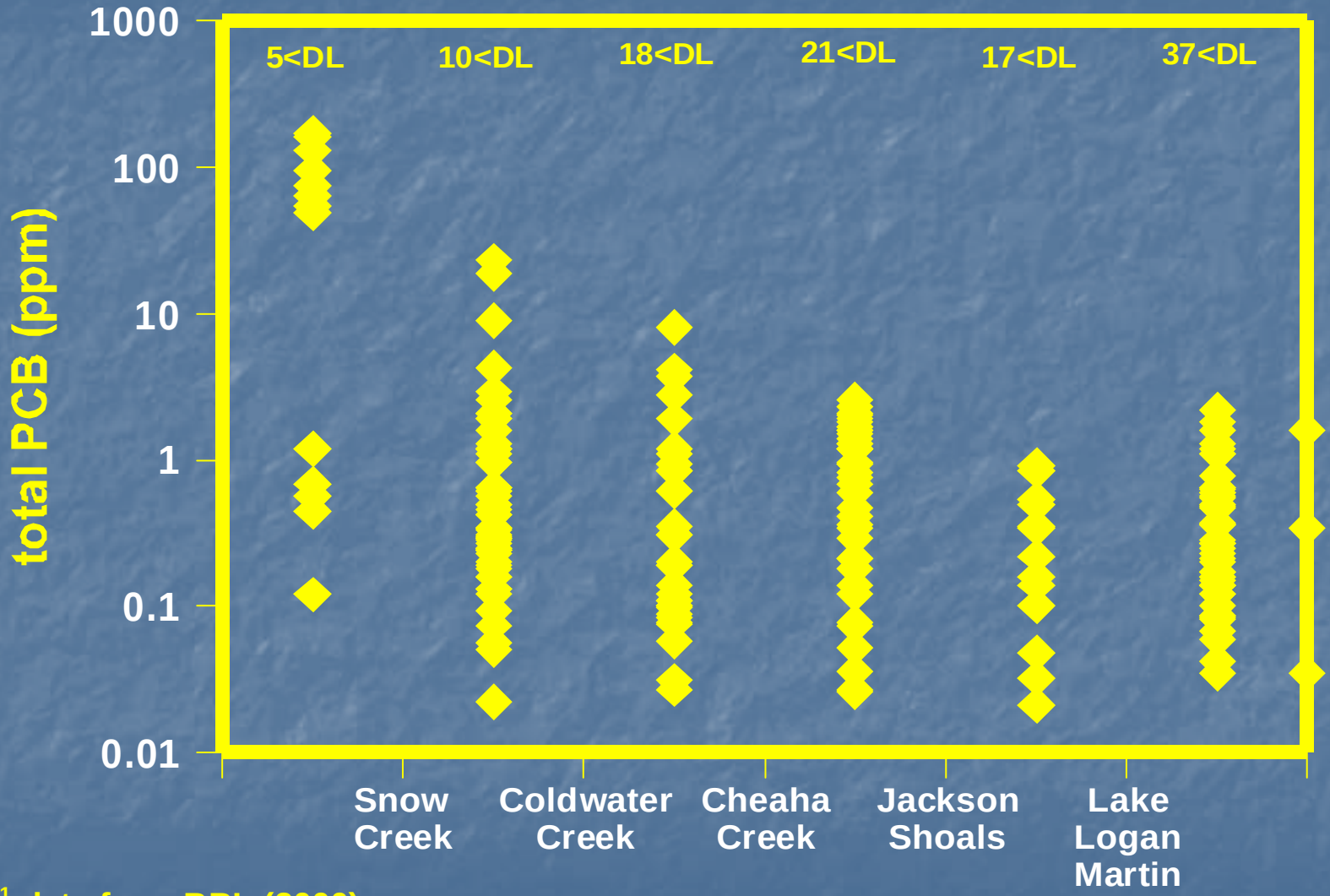
COC levels in sediment (BBL 2000)

- Snow Creek:
  - PCB: <0.2 to 60 ppm
  - mercury: <0.01 to 8.6 ppm
- Choccolocco Creek:
  - PCB: <0.05 to 170 ppm
  - mercury: ?
- Coosa River: ?

PCB in Choccolocco Creek sediment[1]



[1] data from BBL (2000)

Anniston PCB Site

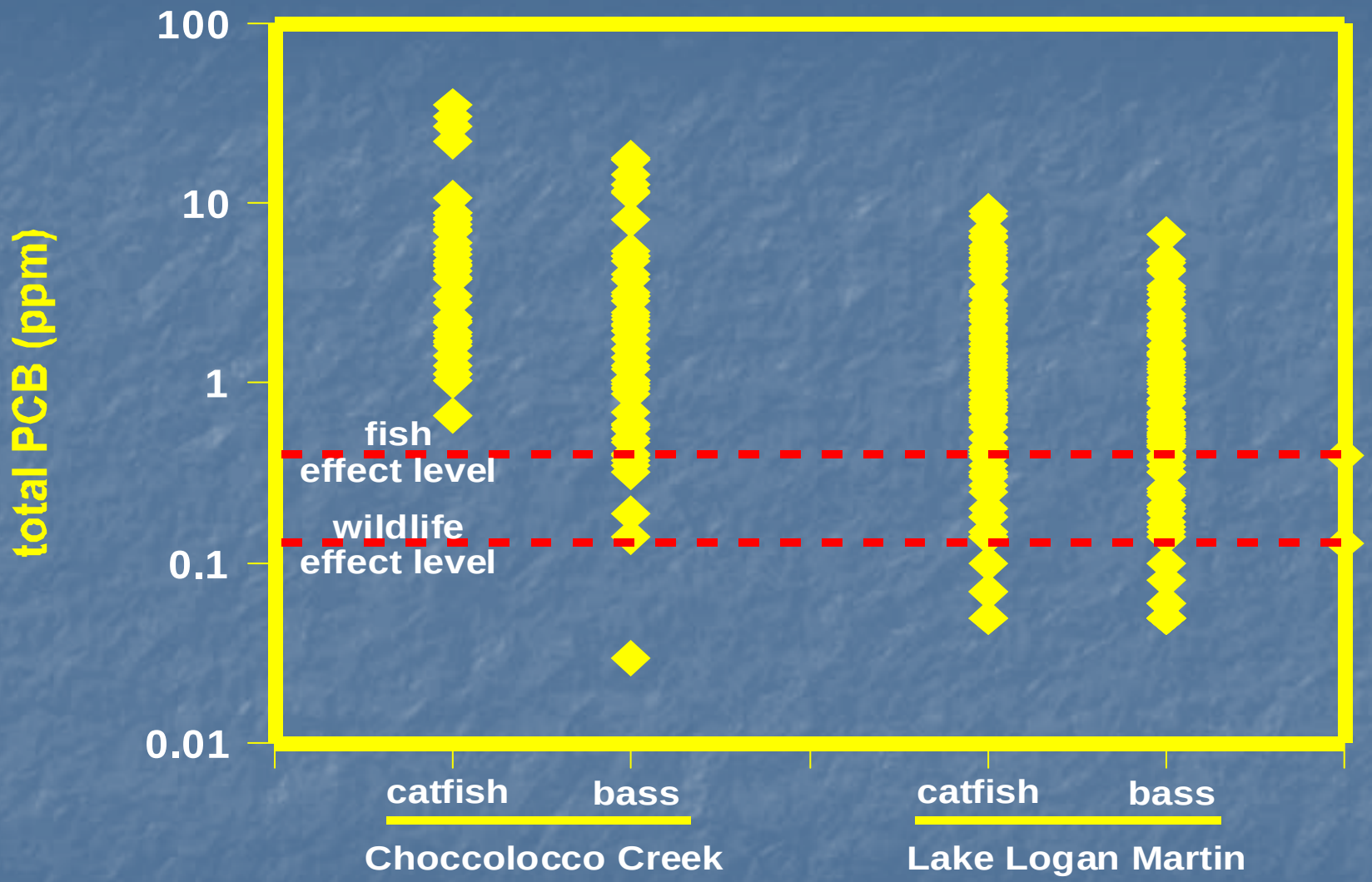
COC levels in fish (BBL 2003)

- **Choccolocco Creek:**
  - **PCB:** nd to 49 ppm
  - **mercury:** nd to 1.4 ppm

- **Lake Logan Martin:**
  - **PCB:** nd to 58 ppm
  - **mercury:** nd to 0.5 ppm

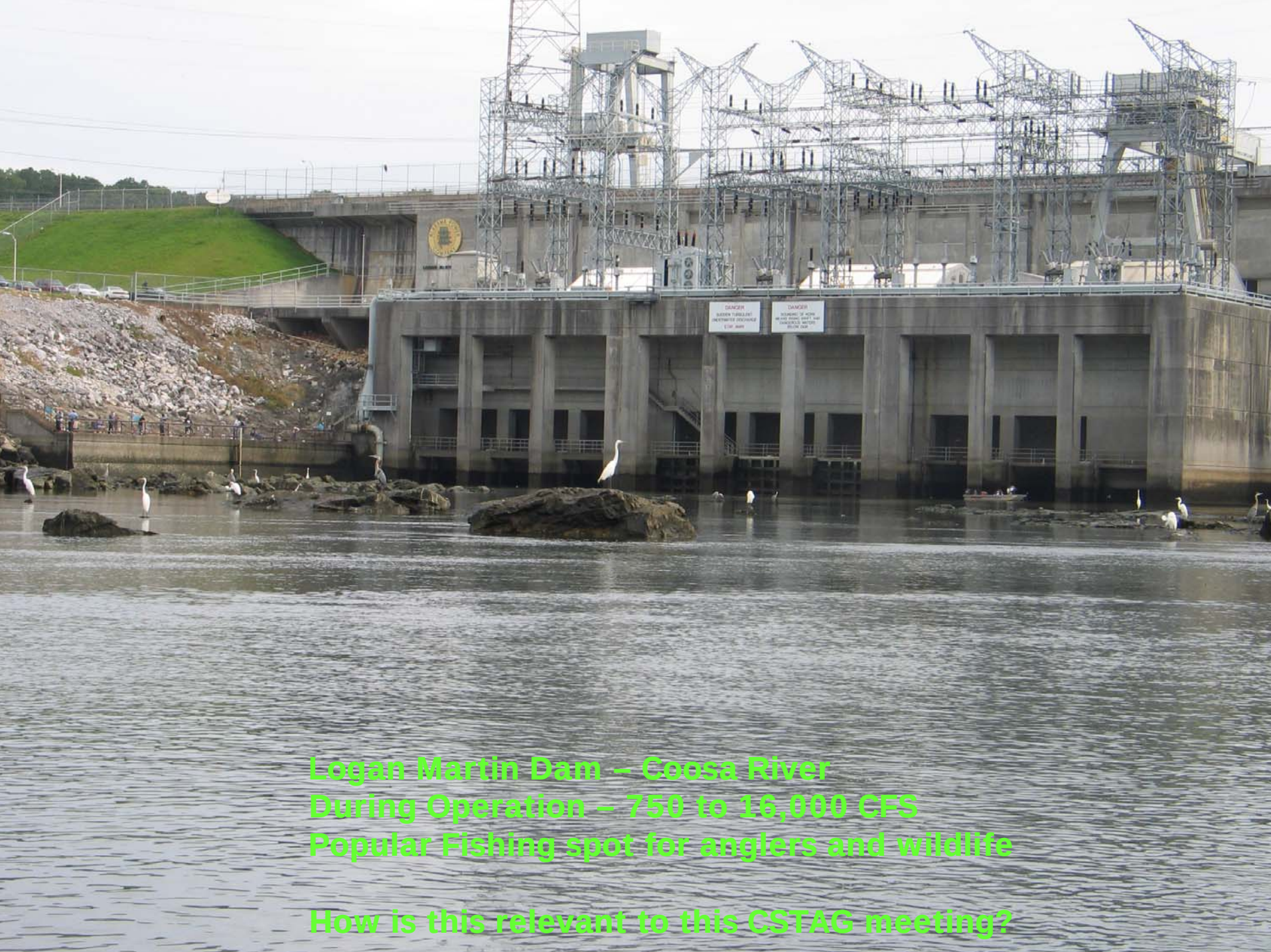
Prin.# 8 “The use of measured concentrations of PCBs in fish is suggested as the most relevant means of measuring exposures of receptors to PCBs in contaminated sediments.”

mean PCB in fish fillets[1]



[1] PCB concentration data from BBL (2003)

[2] Piscivorous wildlife dietary effect level (0.13 ppm) from Newell (1987). Fish reproduction effect level (0.4 ppm) from Eisler and Belisle (1996).

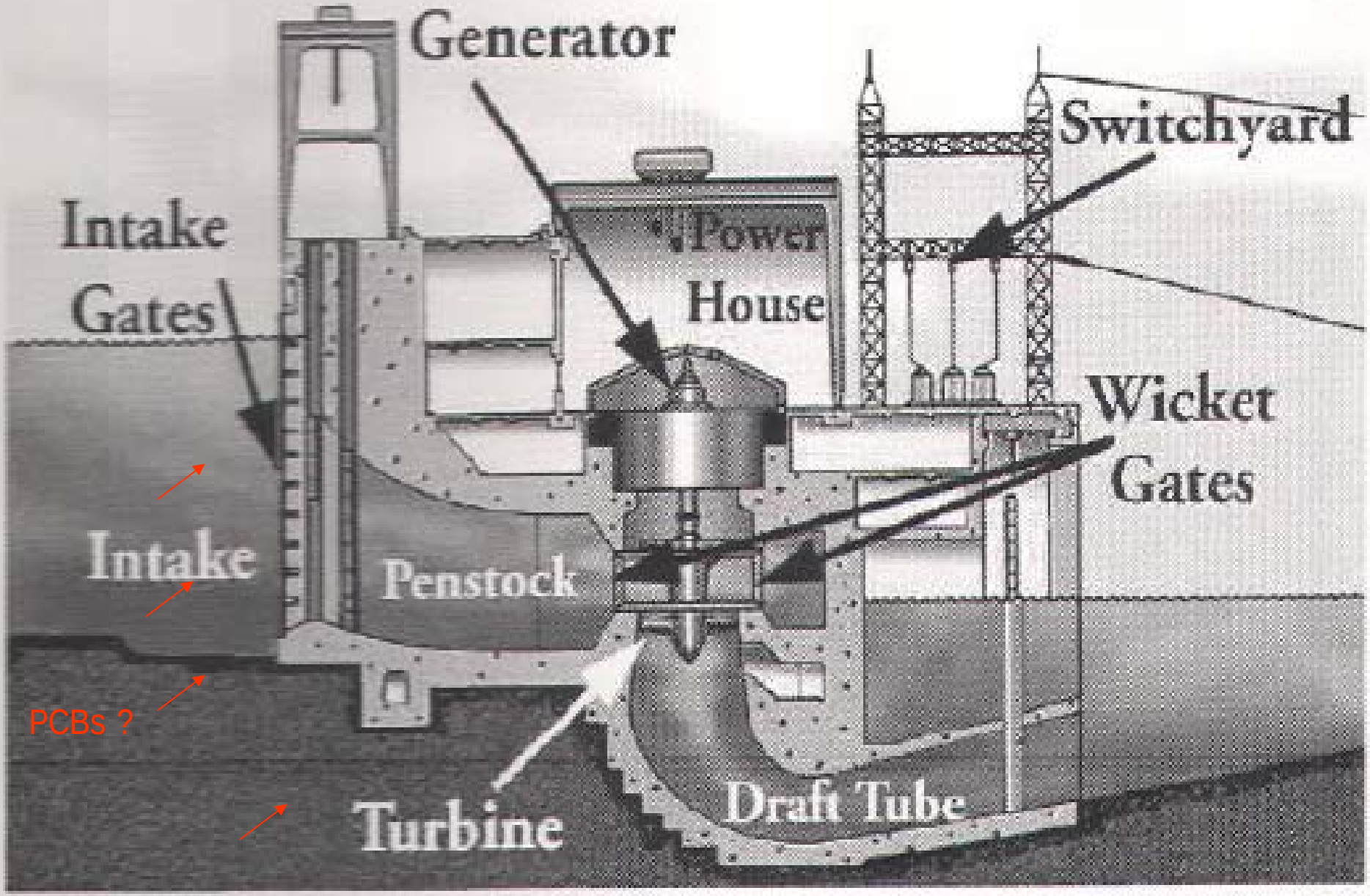


Logan Martin Dam – Coosa River
During Operation – 750 to 16,000 CFS
Popular Fishing spot for anglers and wildlife

How is this relevant to this CSTAG meeting?


Cement Production
> 700 CFS (water) leaks through this dam
PCB/COPC
CONTAINMENT

Prin. #1 – Control Sources Early



Source: Alabama Power Authority, 2000. Typical Hydroelectric Generating Plant

11 Principles – Comments/Concerns

1. Control Sources Early – Further contamination through the Coosa River system needs to be addressed.

2. Involve Community Early and Often – Defer to CAG (Extremely important throughout the entire process!!)

3. Coordinate with Agencies – Monthly calls/meetings (Also extremely important throughout the entire process!!)

4. Develop & Refine a Conceptual Site Model that Considers Sediment Stability – Need to include the Coosa River.

5. Use an Iterative Approach in a Risk-Based Framework – Logan Martin Dam Discharge/Leakage.

6. Carefully Evaluate the Assumptions and Uncertainties assoc. w/Site Characterization Data and Site Models – Need to include the Coosa River and need to determine if the existing data meets agreed upon QA/QC standards by all parties involved.

7. Select Site-specific, Project-specific, and Sediment – Specific Risk Management Approaches that will Achieve Risk-based Goals – Will be determined by the data when collected.

8. Ensure that Sediment Cleanup Levels are Clearly Tied to Risk Management Goals – Concur w/the use of fish as the most relevant means of measuring exposures of receptors to PCBs in contaminated sediments.

9. Maximize the Effectiveness of Institutional Controls and Recognize their Limitations – Fish consumption advisories are in place! Not effective on subsistence anglers!

10. Design Remedies to Minimize Short-term Risks while Achieving Long-term Protection – Will have to be determined if applicable. Recommend the development of a comprehensive GIS database which includes the Coosa River.

11. Monitor During and After Sediment Remediation to Assess and Document Remedy Effectiveness – Concur and recommend using USGS to perform the contaminant concentration reductions in fish tissue studies.

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