Northwest Power and Conservation Council

October 25, 2012

MEMORANDUM

TO: Council Members

FROM: Jeff Allen
Idaho Council Office

SUBJECT: Update on Northern Idaho Projects

At the Council Meeting in Coeur d'Alene, Chip Corsi, Panhandle Regional Supervisor of the Idaho Department of Fish and Game will brief you on Northern Idaho Projects.

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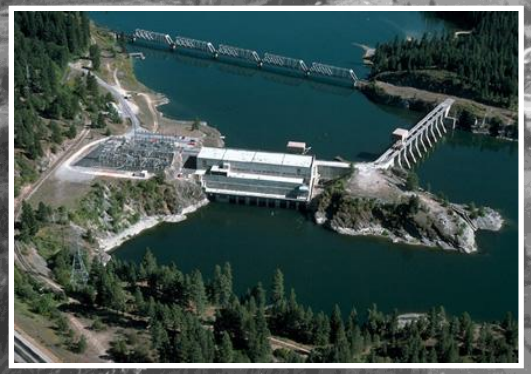
NWPCC Mitigation Programs in the Idaho Panhandle



Photograph: Bonner County Museum

Albeni Falls Wildlife Mitigation Project

Goal: mitigate for the wildlife losses from the Albeni Falls Hydroelectric Project

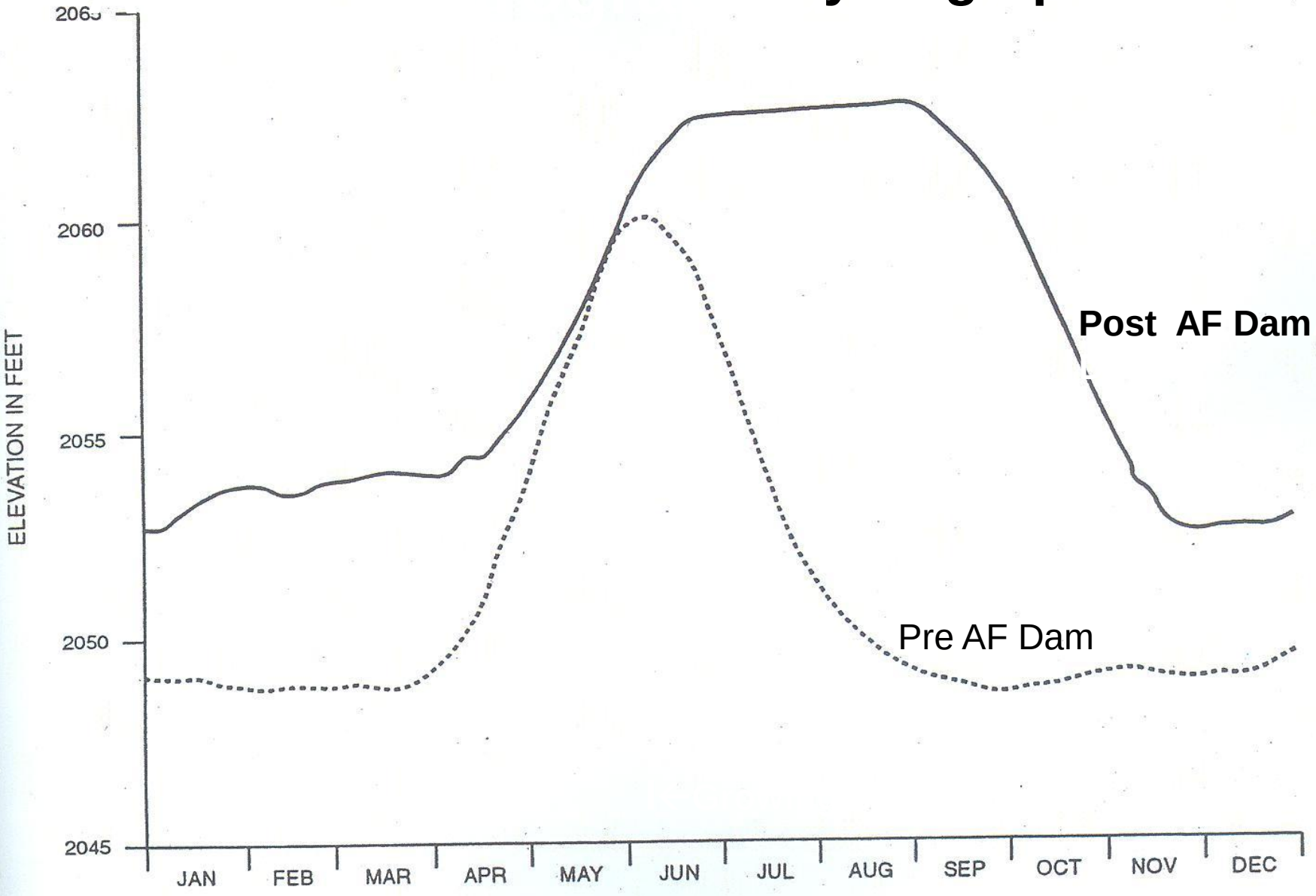
Replacement of Lost Habitat Units due to construction & inundation, and operation of AF Dam

Total mitigation debt (C&I):
8,587 Habitat Units (HU)

Operation mitigation: TBD

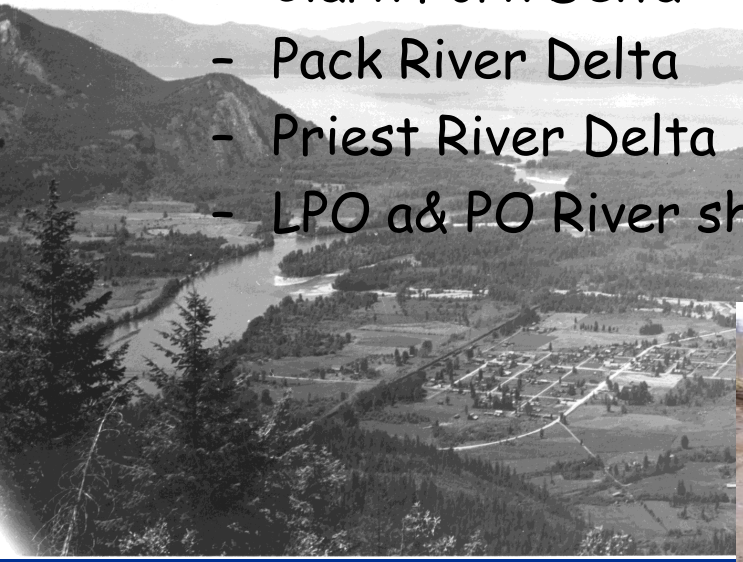
Co-implementers: Kalispel Tribe, Kootenai Tribe, Coeur d'Alene Tribe

Lake Pend Oreille Hydrograph



What are we mitigating for?

- C&I loss of ~ 7,000 acres
- Operational losses TBD
  - Clark Fork Delta
  - Pack River Delta
  - Priest River Delta
  - LPO a& PO River shorelines



IDFG mitigation projects

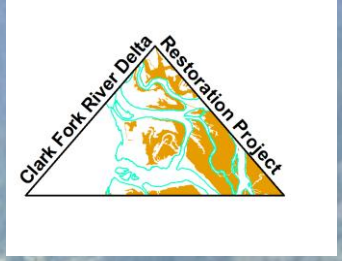
Until now, mitigation primarily by protecting property through acquisition.

To date, mitigation has been for C&I

Idaho interested in settlement for C&I and Operations, with shift in emphasis towards restoration, and focus on Pend Oreille basin upstream from AF Dam

Boundary-Smith acquisition/restoration

Clark Fork Delta Restoration



Initiate in 2013-14 through the State of Idaho – BPA "Letter Agreement"

A. Protect delta shorelines from erosion

B. Protect existing island areas from erosion and create protective "barrier" island areas

C. A portion of the delta islands that are currently submerged will be raised to restore and expand wildlife habitat lost due to inundation

D. Increase wetland habitat diversity

E. Capture woody debris and encourage sediment deposition in the delta area

Partners: BPA, COE, Avista, Ducks Unlimited, BLM, Kalispel Tribe…

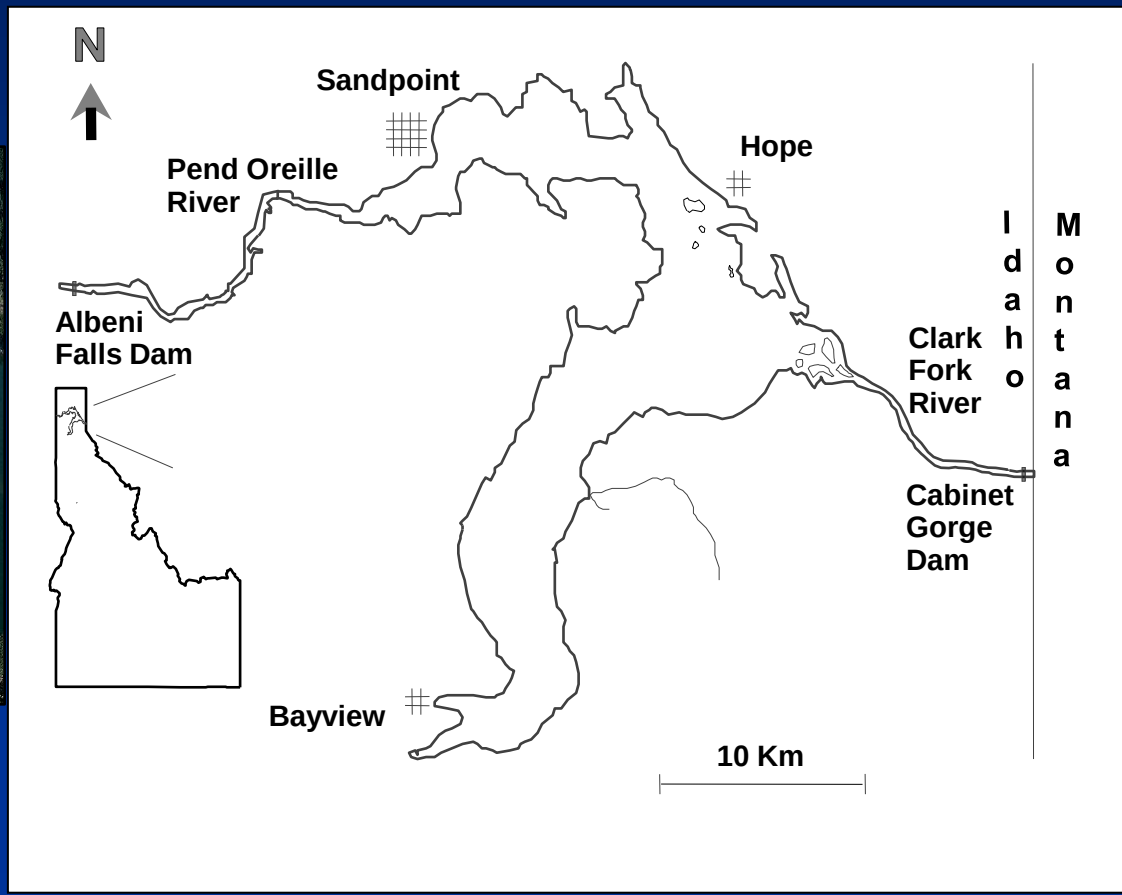
Summary – AF Wildlife Mitigation

- Substantial progress towards meeting C&I mitigation
- Beginning discussions on Operations mitigation
  - "letter agreement" an outgrowth of flex ops and discussions on how best to move forward

Lake Pend Oreille Fishery Recovery Project

Idaho Department of Fish and Game
Project # 1994-047-00

Albeni Falls Dam on
Pend Oreille River



Albeni Falls Dam Fishery Impacts

Species affected: Bull trout, W'slope cutthroat trout, kokanee, rainbow trout, mountain whitefish…

Riverine

- Impoundment of Pend Oreille River (~27miles) +
- Impoundment of lower Clark Fork River (~3 miles) +
- Impoundment of lower ends of Pend Oreille tributaries (~20miles) =
- Total impounded free flowing habitat ~50 miles

Lacustrine

- Altered lake hydrograph
  - Shoreline impacts
  - Winter lake level mgmt.

Fishery Recovery Objectives

- Kokanee recovery
  - High yield KOK fishery
  - Prey source for BLT and RBT
- Bull trout and cutthroat trout conservation
- Reduce LKT population
- Restore trophy fishery for RBT and BLT

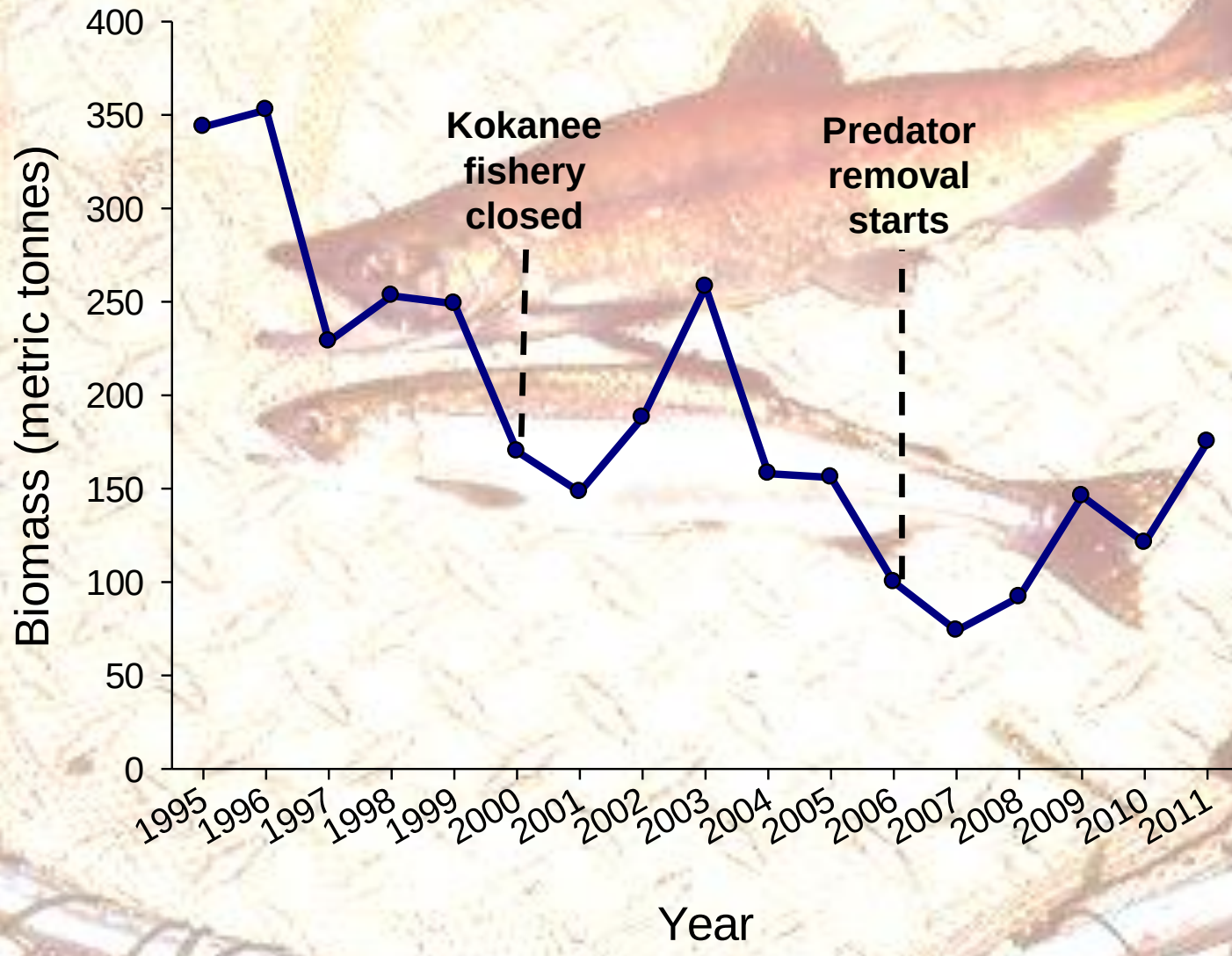
32 lb world record bull trout
Lake Pend Oreille - 1947

Actions Taken

- Kokanee hatchery (1986) –
  - BPA, COE, Avista construction
  - IDFG operation
- Research Program
  - Guides use of hatchery fish
  - Provides basis for operations to benefit fish
  - Manages predator control

Kokanee Trend

Lakewide biomass estimates



Kokanee Trend

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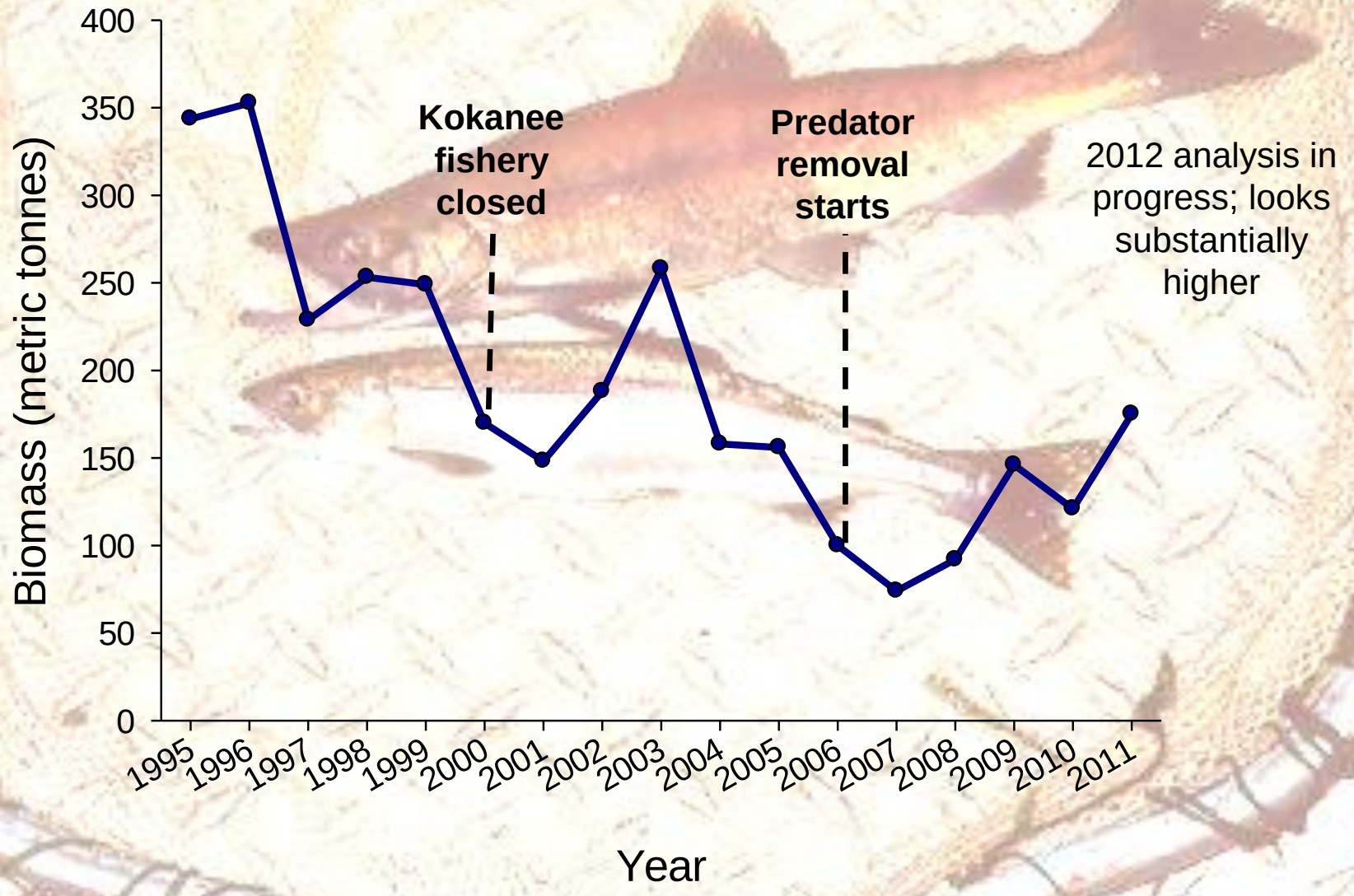
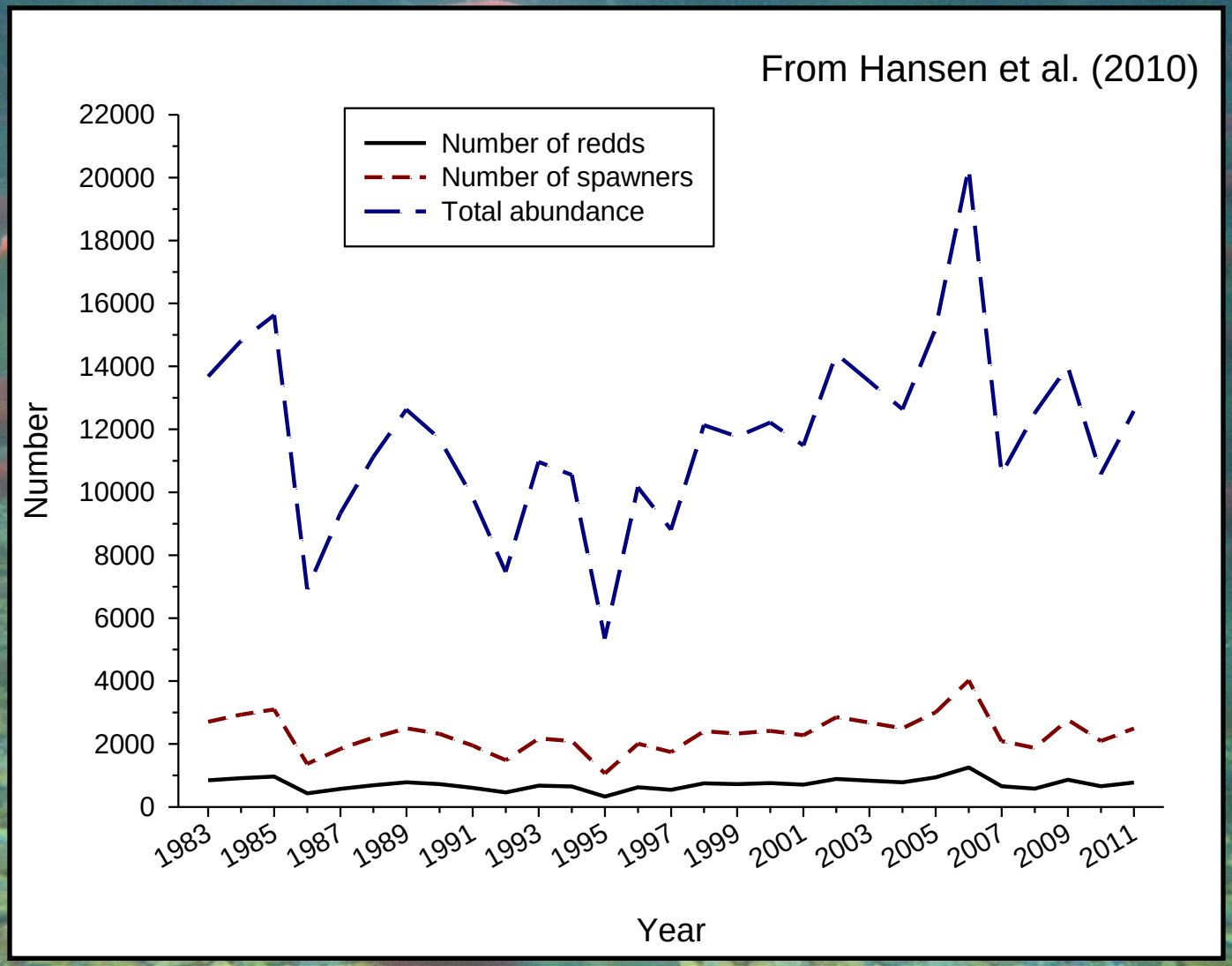


Bull Trout Trend



Key Results and Future Outlook

- Kokanee responding favorably to management actions
  - Have overcome record-low in 2007 caused by predation
  - Strongest population since prior to closing fishery in 2000
  - IDFG proposing limited harvest kokanee fishery starting in 2013
- Bull trout population is stable
  - Withstood major threat from lake trout over past decade
  - Increased prey availability (kokanee) and less competition/predation (lake trout)
  - Population increase to come?

Key Results and Future Outlook

- Progress towards recovery of rainbow trout fishery
  - Fewer predators (lake trout) and more prey (kokanee)
  - Removing Angler Incentive Program for rainbows in 2013
  - Return to trophy rainbow trout management underway
- Improved understanding of limiting factors for kokanee recovery
  - Evaluating lake levels, predation, nutrient dynamics, etc.
  - Adapting recovery actions based on new information
- Positive signs, but more work ahead
  - Continued success relies on implementation of recovery actions
- Mitigation for affected riverine habitat?

Partners

- Avista Utilities
- LPO Fishery Recovery Task Force
- Anglers
- Kalispel Tribe
- Corps of Engineers
- Hickey Bros. Fisheries
- USFWS
- USFS
- University of Idaho
- University of Wisconsin Stevens Point

KOOTENAI RIVER RESIDENT FISH MITIGATION

Idaho Department of Fish and Game: 1988-065-00

Kootenai River White Sturgeon

Partners: Kootenai Tribe, BC MOE, MT FWP, USFWS, BPA, COE

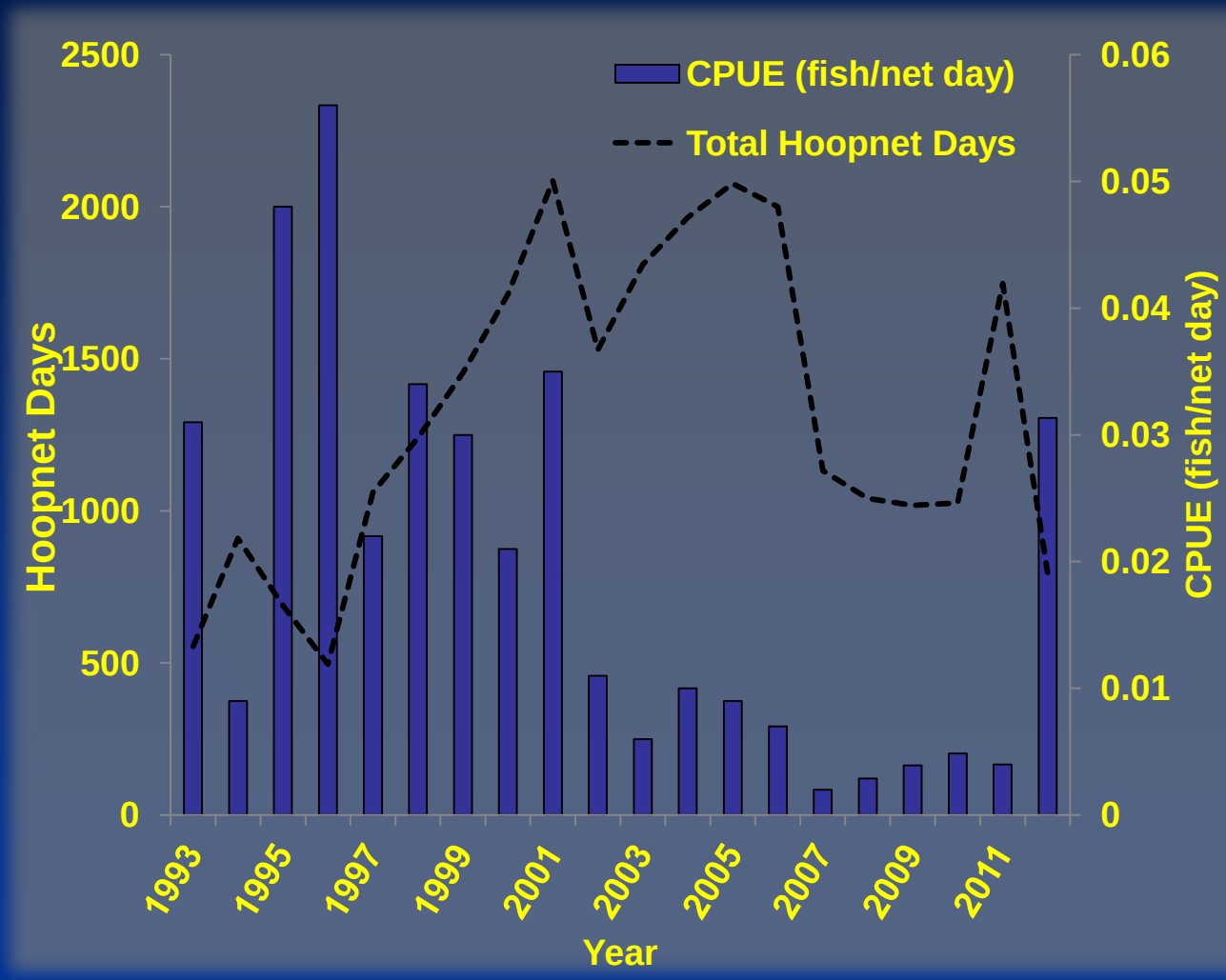
- Approximately 1,000 adult wild sturgeon
- Survival bottleneck: fish spawn over substrates too poor for hatching.
- Flows determined not to be favorable for spawning.
- Project results guide habitat restoration in spawning areas.
- Continue to work with ACOE to provide suitable spawning temperatures and flows.

Burbot

Partners: Kootenai Tribe, BPA, COE, U. Idaho, BC MOE

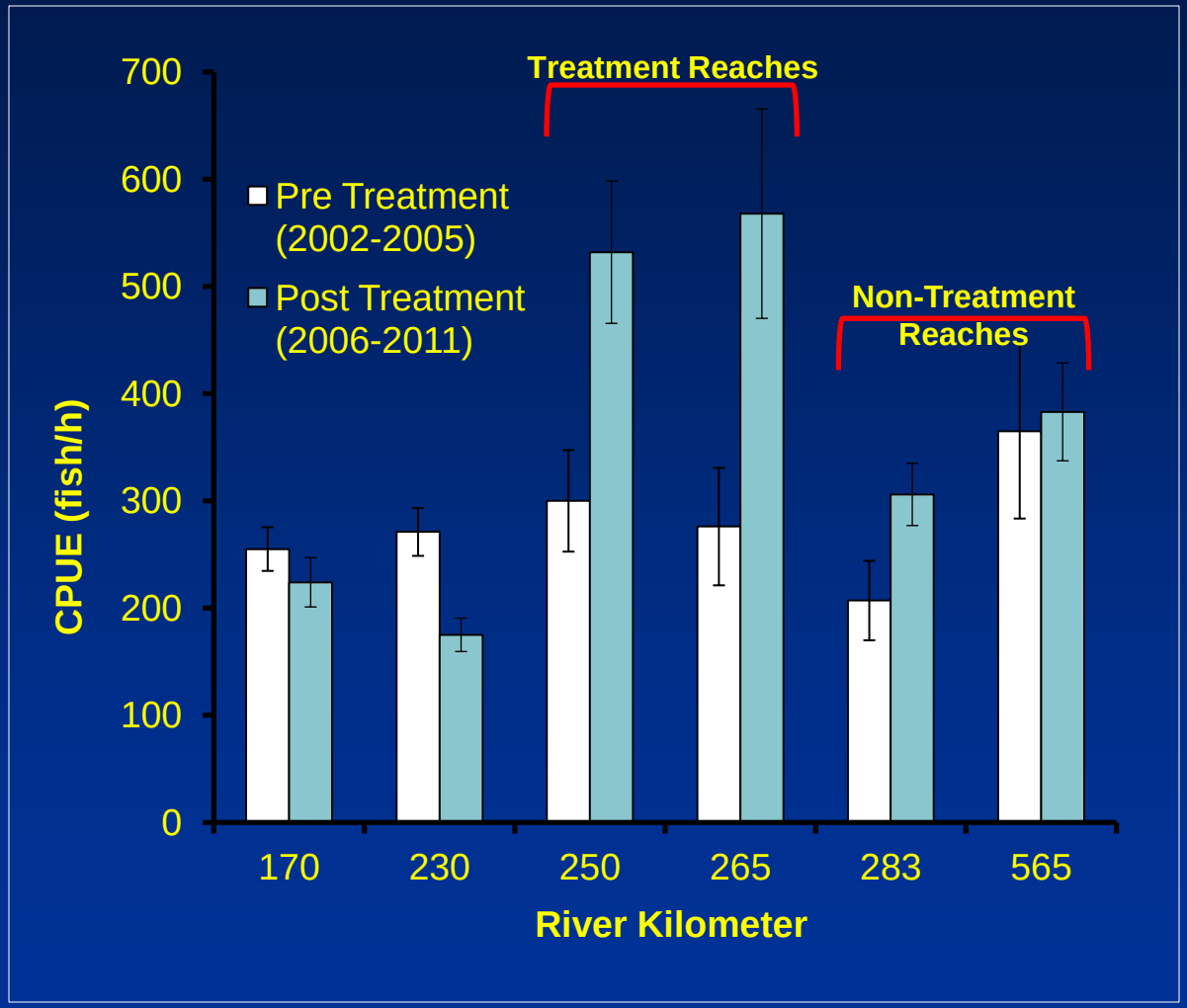
- Population near extirpation in 2006: N ≈ 60 adults
- Aquatic Research Institute – successful in culturing burbot
- Kootenai River Stocking: 2009 = 209
  2010 = 2,150
  2011 = 95,000
  2012 = 322,000
- Parental Based Tagging (PBT) 98% efficient to identify origin

Burbot Supplementation Success

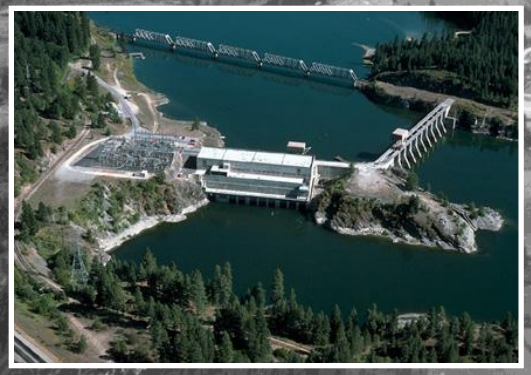


Nutrient Addition and Native Salmonid Populations

Partners: Kootenai Tribe, BPA



Thank You



Photograph: Bonner County Museum