

# Bradford Island

Cleanup Site Overview

by Laura Shira,

Yakama Nation Fisheries

October 10, 2019

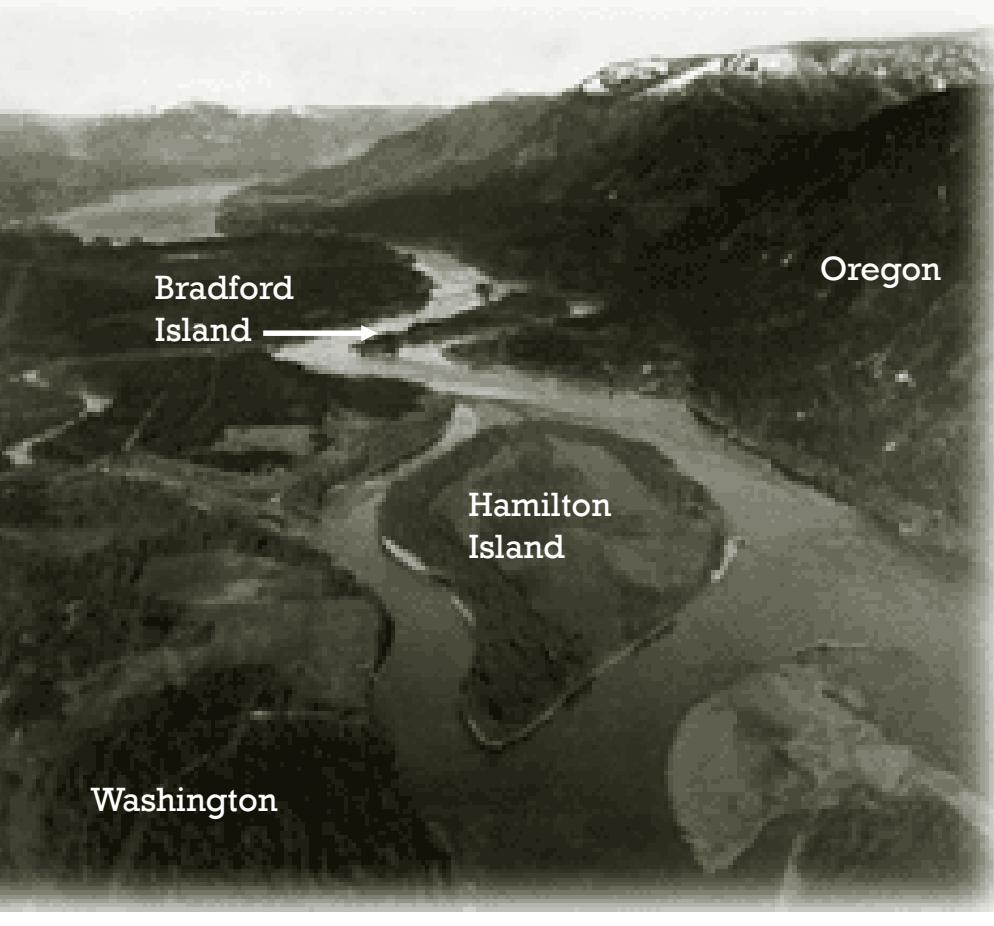




# Columbia River Basin

## Site Location





Columbia River, prior to construction of the Dam.

<http://www.u-s-history.com/pages/h1792.html>



Post-dam construction



# Timeline

- Time Immemorial – strong Native American presence on and surrounding the island
- 1930s - Bonneville Dam Construction Started.
- 1930s to 1980s – Upland waste disposal from dam construction and operation, one or more in-river waste disposal incidents
- 1997 - environmental investigations began
  - 2000, 2002 and 2007 - Removal Actions - electrical equipment removal & diver assisted dredging
  - 2011 – multi-media sampling effort – improved sediment contaminant concentrations; however, maximum smallmouth bass concentration 183,140 µg/kg (ppb) (screening level = 0.57 ppb)
  - 2012 - Remedial Investigation for Upland OU and In-River OU



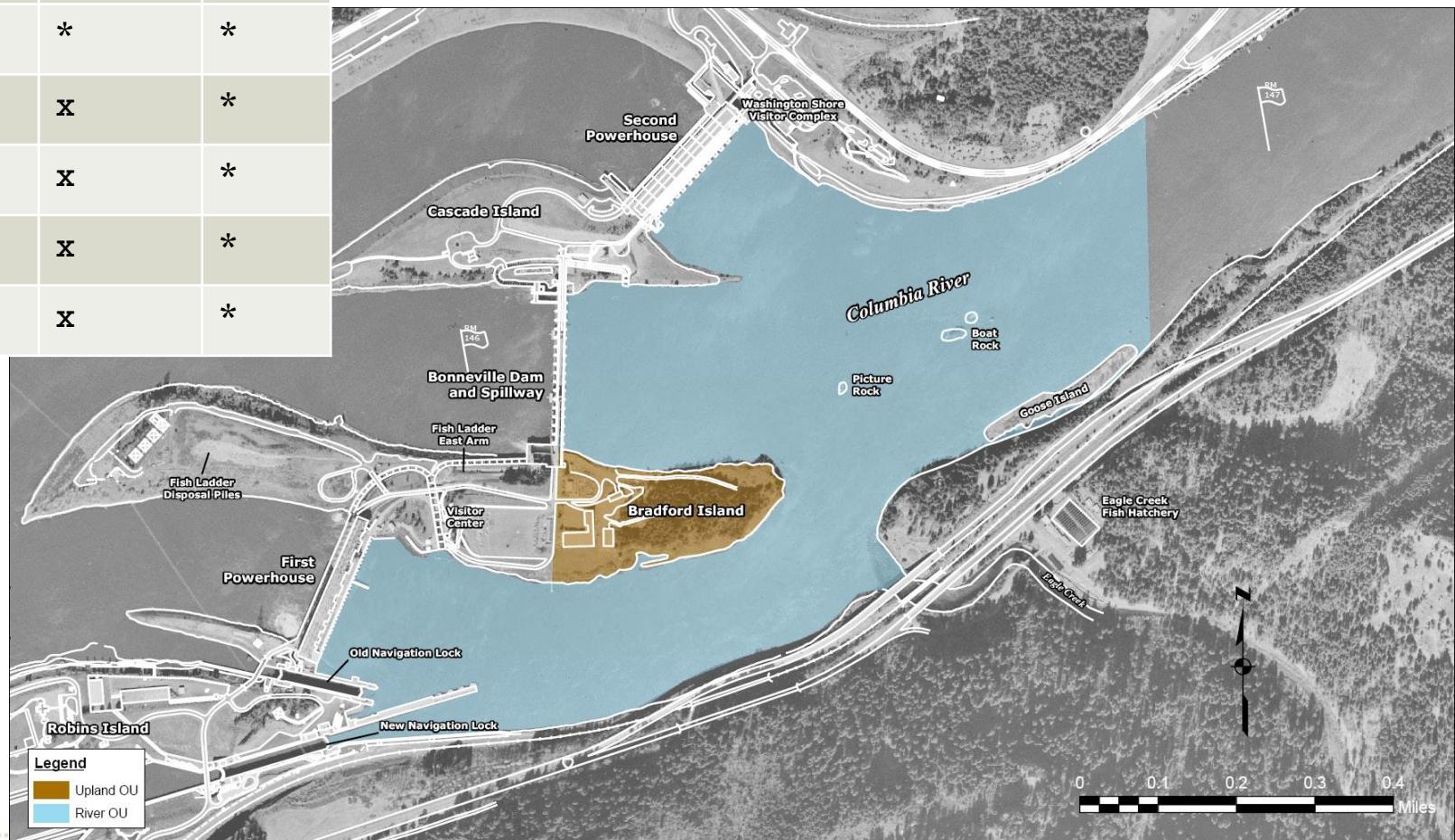
# Timeline continued...

- 2013 - DO NOT EAT Resident Fish Advisory issued jointly by WA and OR health departments for the ~1 mile area upstream of the BI dam
- 2016 - Risk Assessment for Upland OU and In-River OU
- 2017 - Feasibility Study (FS) for Upland OU
- 2017 – Draft FS for In-River OU (not finalized)

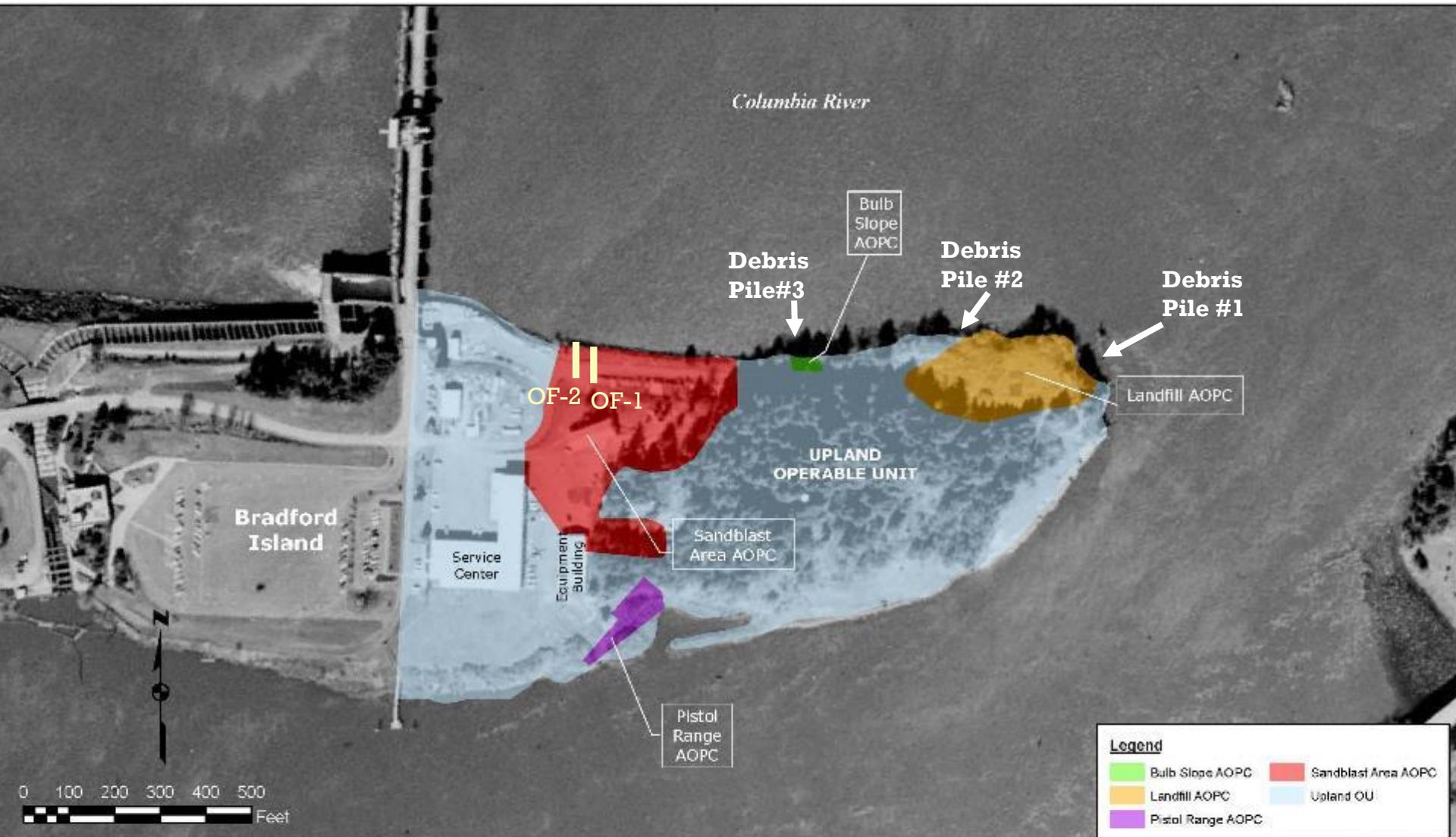
# Two Operable Units: Upland OU & In-River OU



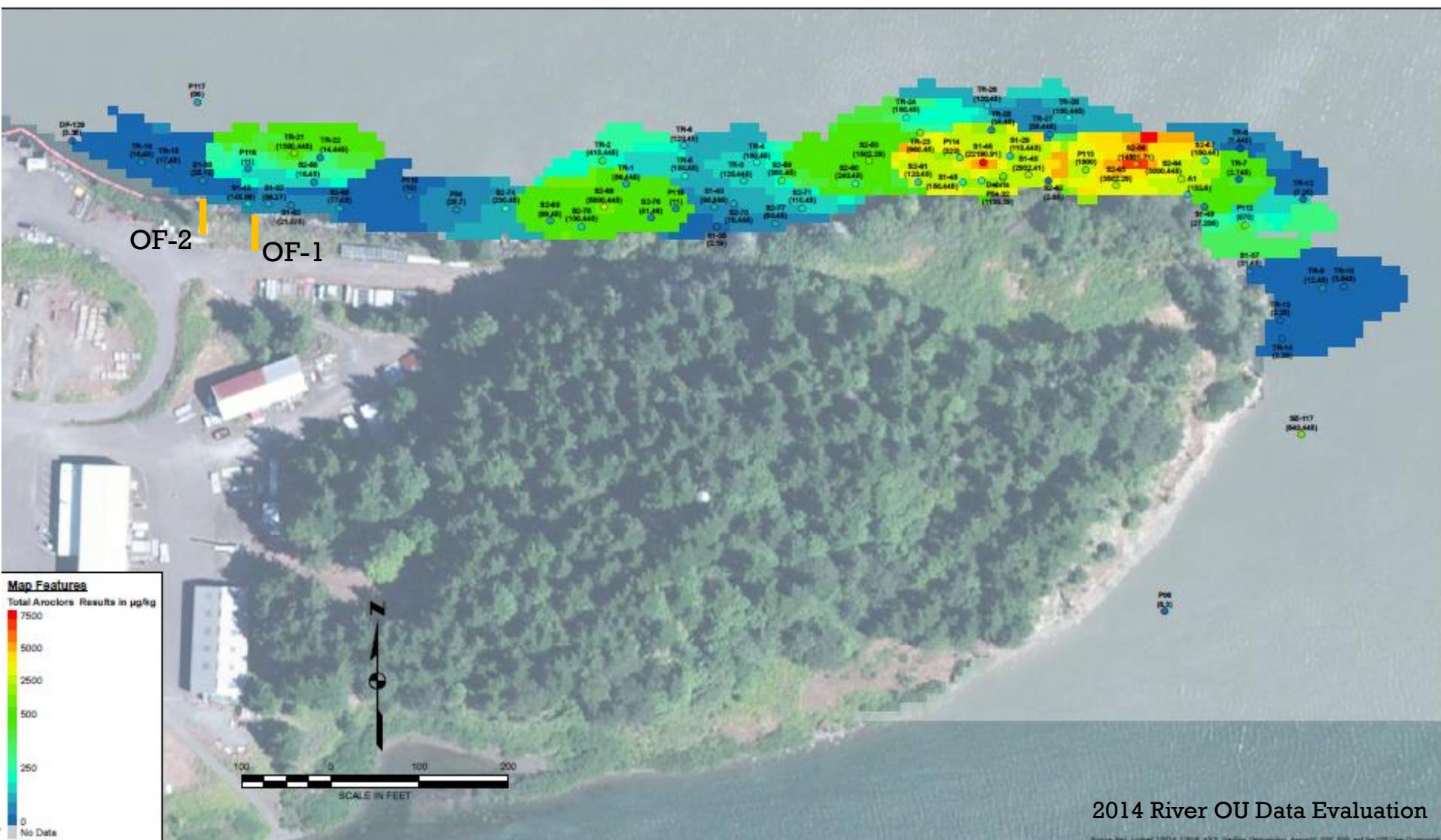
Above Risk-based Conc	Upland	In-River
PCBs	x	x
pesticides	*	*
PAHs	x	*
metals	x	*
mercury	x	*
phthalates	x	*



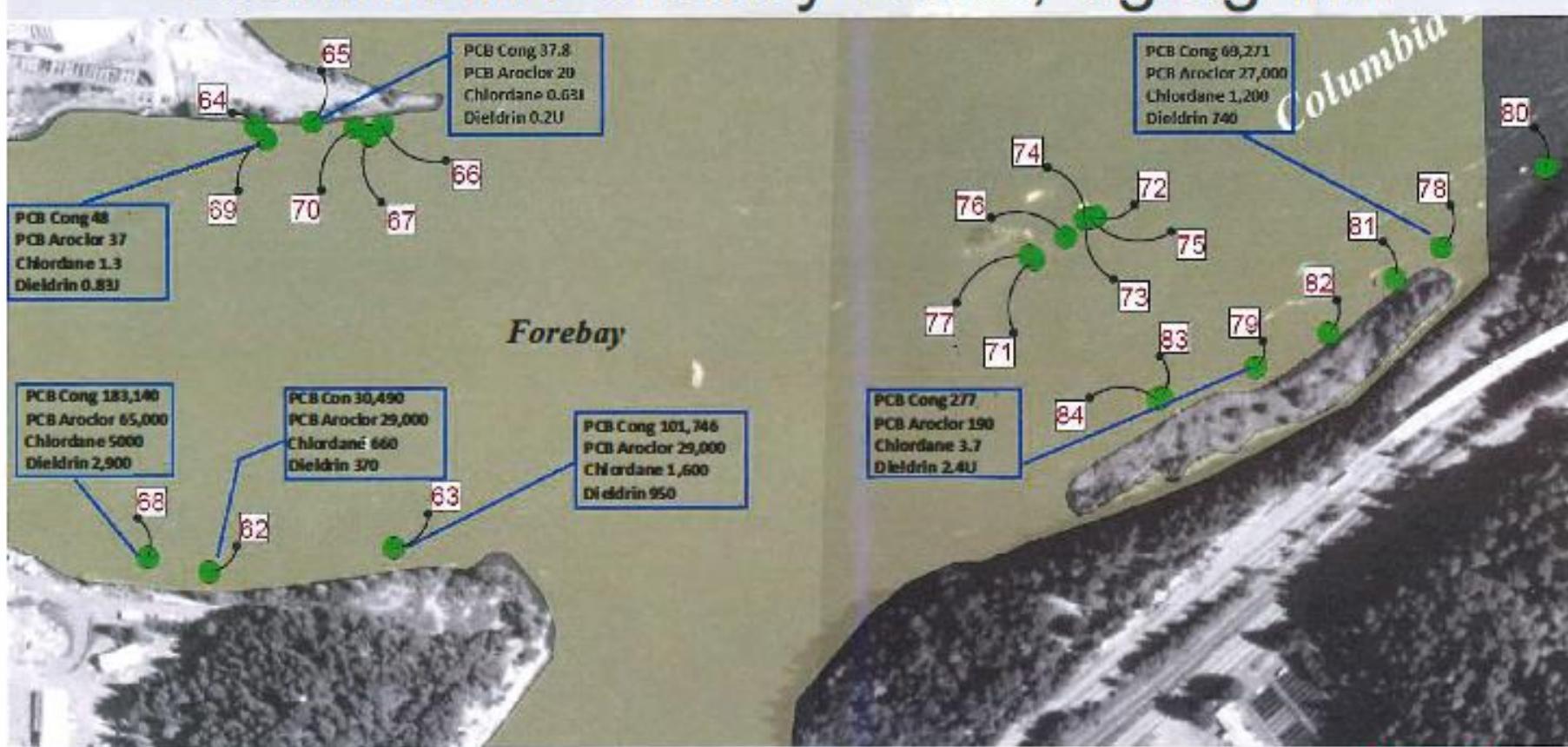
# Upland OU - 4 Areas of Potential Concern (AOPCs)



# In-River OU - PCBs in sediments



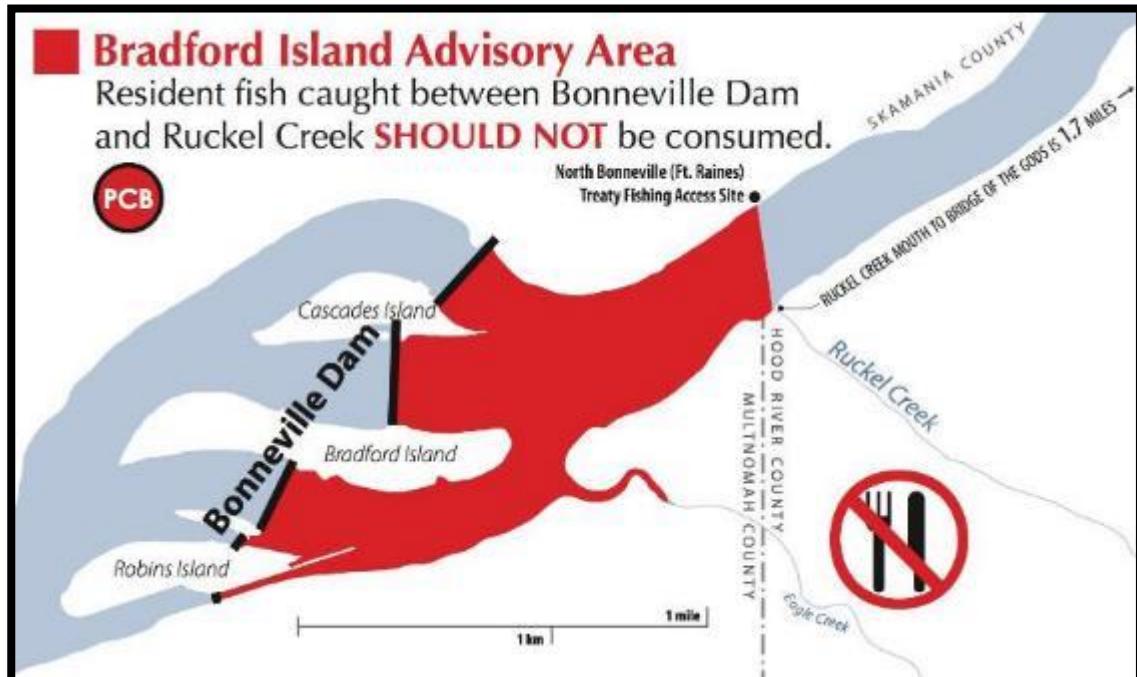
# 2011 PCB, Gamma Chlordane, and Dieldrin in Forebay Bass, ug/kg ww



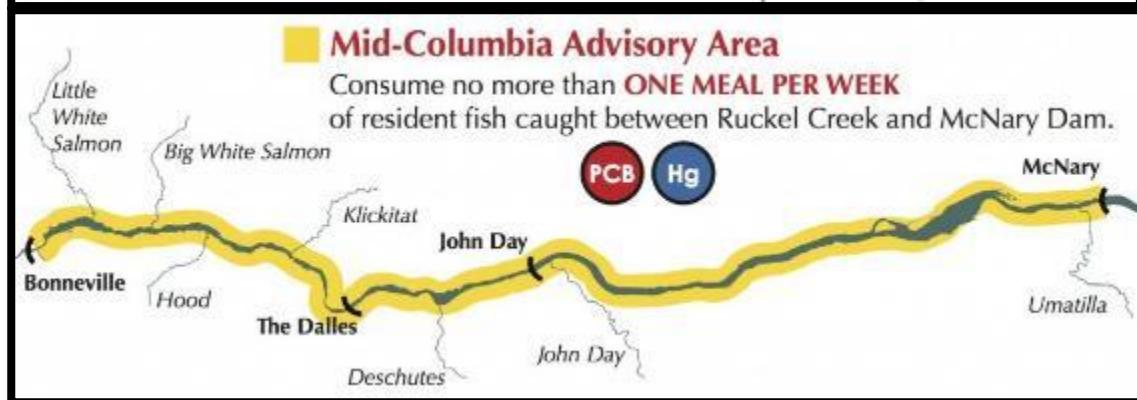
# Fish Consumption Advisories



2013 Advisory -  
Site-Specific  
WA & OR Health Departments



Mid-Columbia Advisory-  
RM 146-292





# NEXT STEPS:

- TBD (FY2020?) - continue contract work
  - stormwater sampling
  - cultural survey
  - near-bottom surface water passive sampling
- TBD - Final Proposed Plan – Upland OU
  - Active Cleanup – Landfill & Pistol Range AOPCs
  - No Further Action Determination – Sandblast & Bulb Slope AOPCs
- TBD – Source Control Actions/O&M - Upland OU
  - Sandblast & Bulb Slope AOPCs



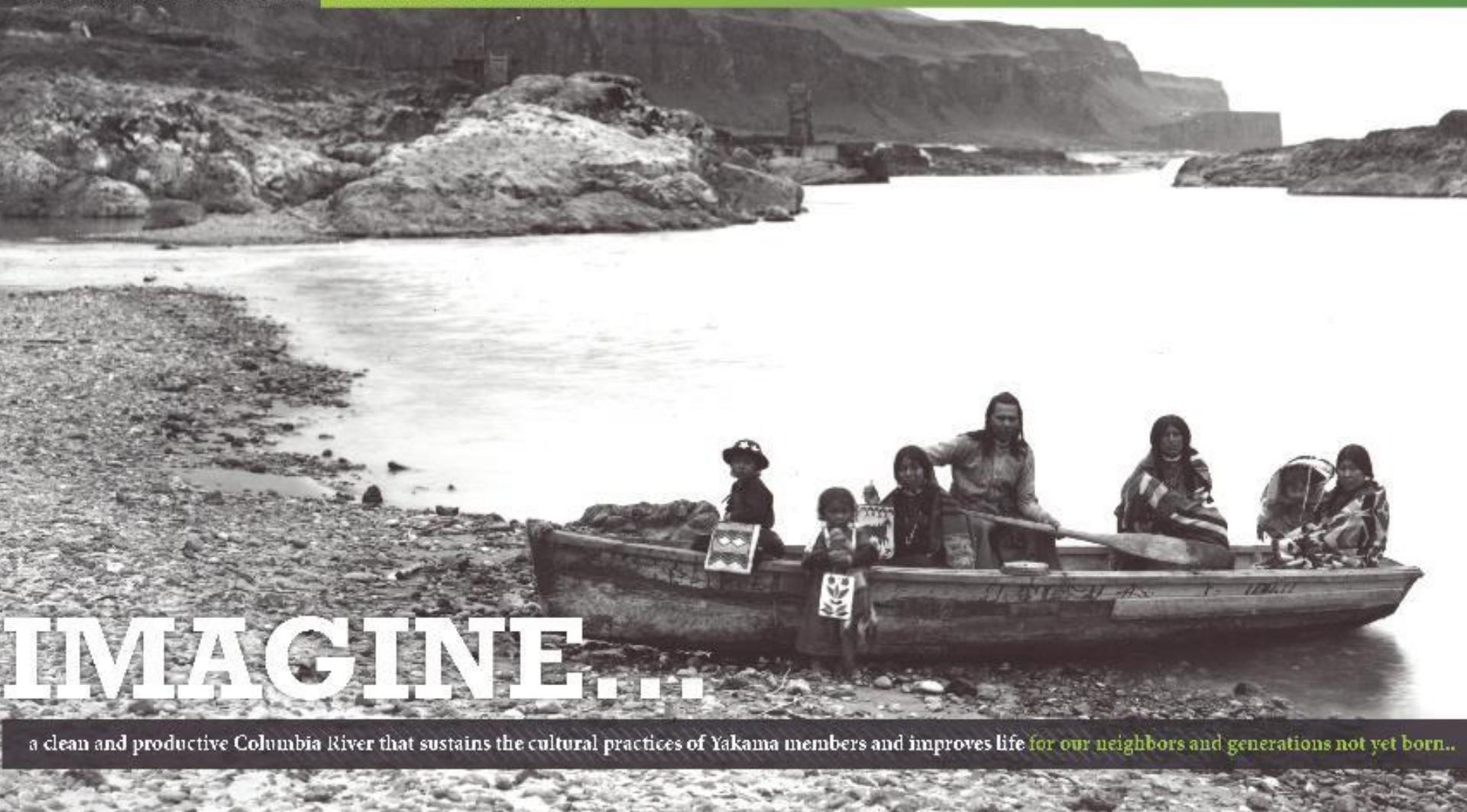
# New Developments

- The President's FY2020 budget proposal currently contains \$0 for Bradford Island.
- September 2019 – the Corps terminated their Voluntary Cleanup Program Letter Agreement with OR DEQ. Funding for DEQ in question.

# THE CONFEDERATED TRIBES & BANDS OF THE YAKAMA NATION

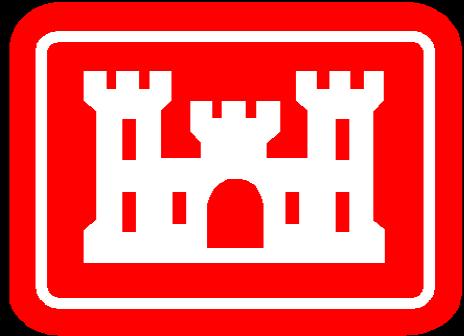
COLUMBIA RIVER

Honor. Protect. Restore.



# IMAGINE....

a clean and productive Columbia River that sustains the cultural practices of Yakama members and improves life for our neighbors and generations not yet born...



**US Army Corps  
of Engineers®**



**State of Oregon  
Department of  
Environmental Quality**



**DEPARTMENT OF  
ECOLOGY**  
State of Washington



Extra slides if questions

# In-River Hazardous Materials Recovered



## Equipment Removed Included:

-Lightning arrestors, coupling capacitors, inerteen capacitors, light ballasts

## PCB concentrations found:

- Electrical equip: up to 200,000 mg/L (ppm) (20%)
  - Westinghouse original formulation reported to be 60 to 75%
- Sediment: up to 690,000 ppb (2003), decreased with removal actions
- Fish: up to 183,140 µg/kg (ppb) (2011)
  - screening level = 0.57 ppb

# BONNEVILLE DAM FISH ADVISORY AT BRADFORD ISLAND



DO NOT EAT	HEALTHY TO EAT
Carp	
Bluegill	
Sucker	
Small mouth bass	
Large mouth bass	
Sturgeon	
Yellow Perch	
Crappie	
Walleye	
Catfish	
Salmon	
Steelhead	
American Shad	
Lamprey	

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/FISHCONSUMPTION/Pages/Bonneville.aspx>

## Mid-Columbia River Fish Advisory:

<https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/FISHCONSUMPTION/Pages/Mid-Columbia.aspx>