

Bradford Island

Cleanup Site Overview
by Laura Shira,
Yakama Nation Fisheries
October 10, 2019



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

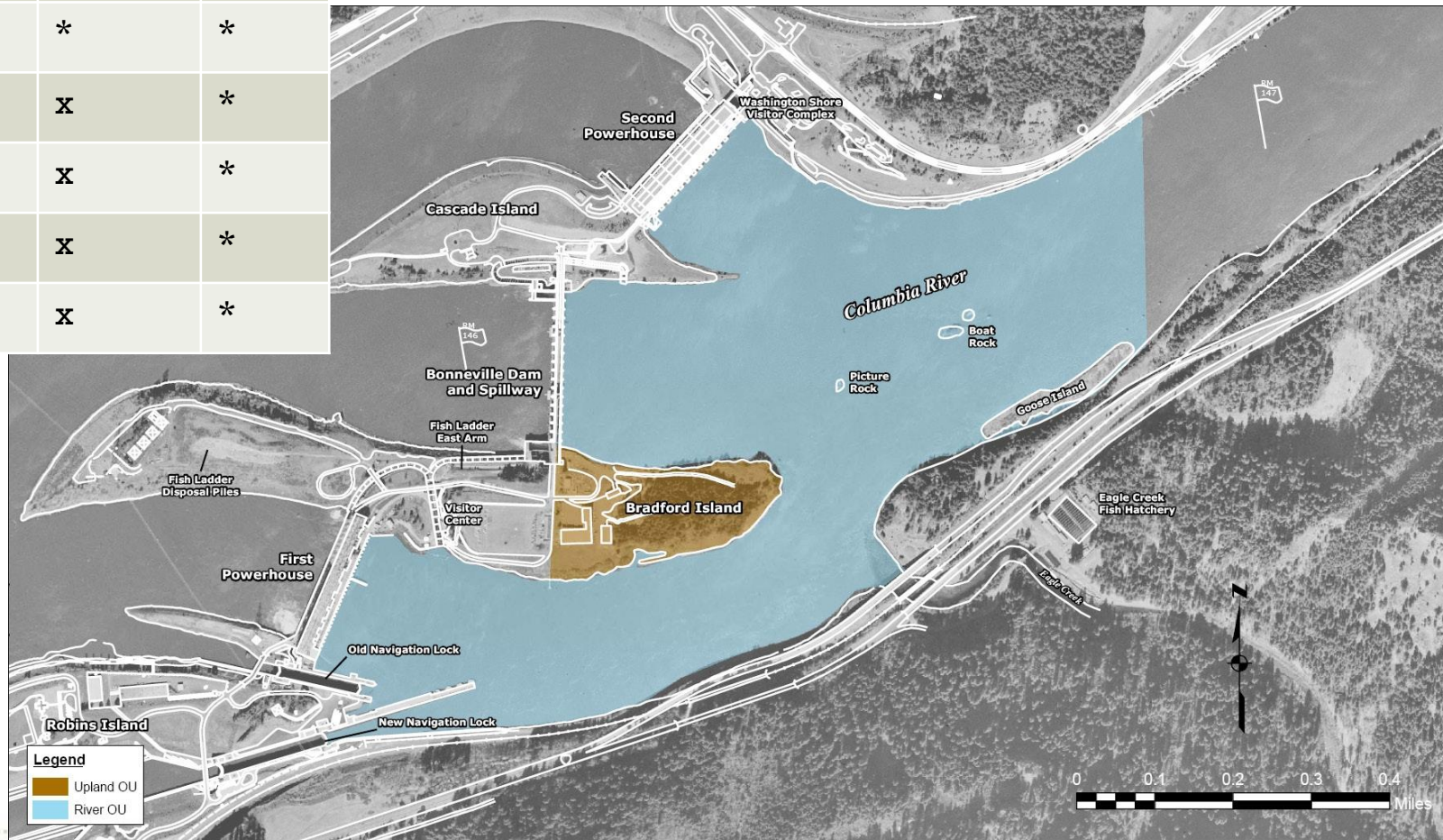
Timeline continued...

- 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)

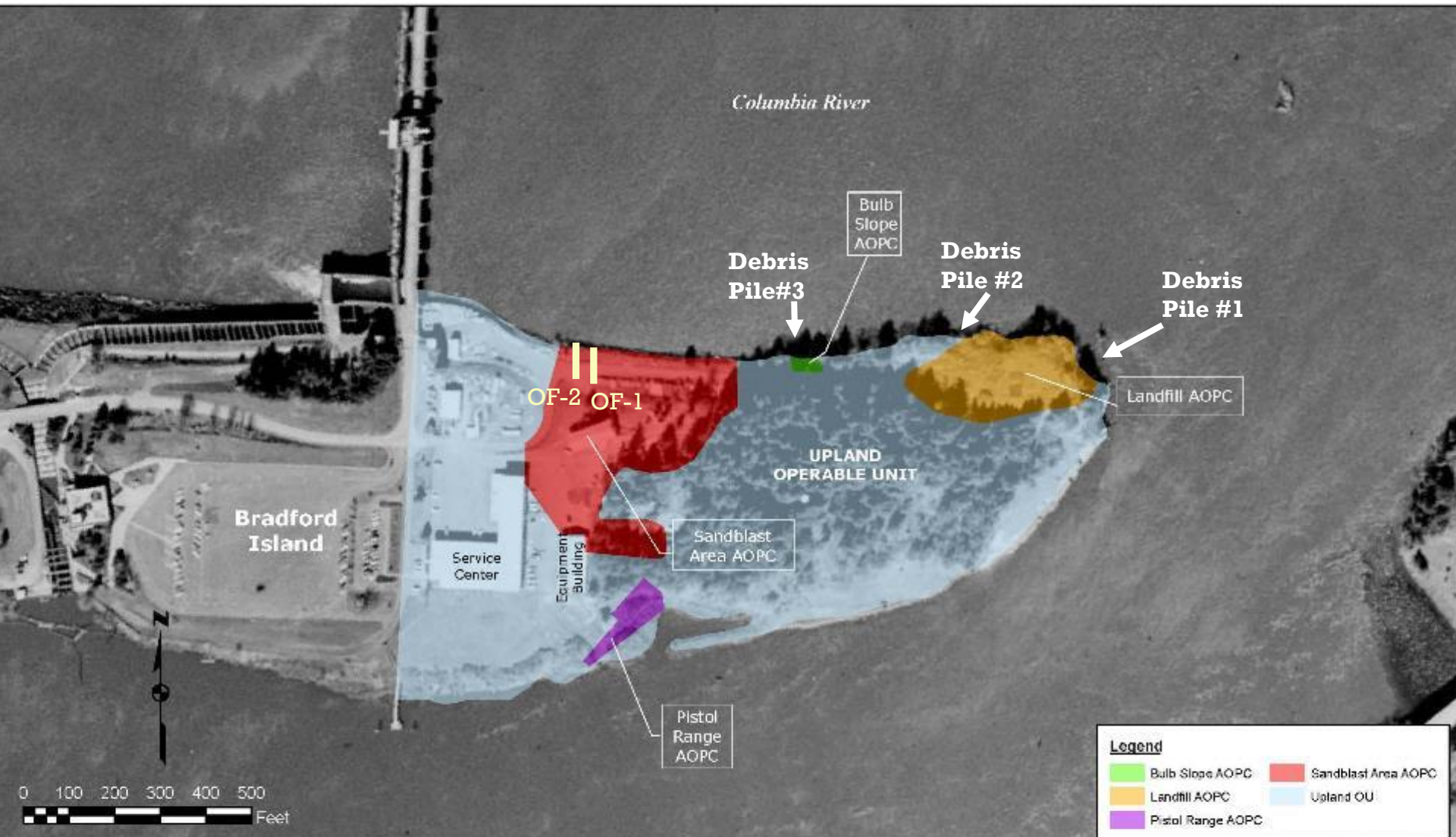
Two Operable Units: Upland OU & In-River OU



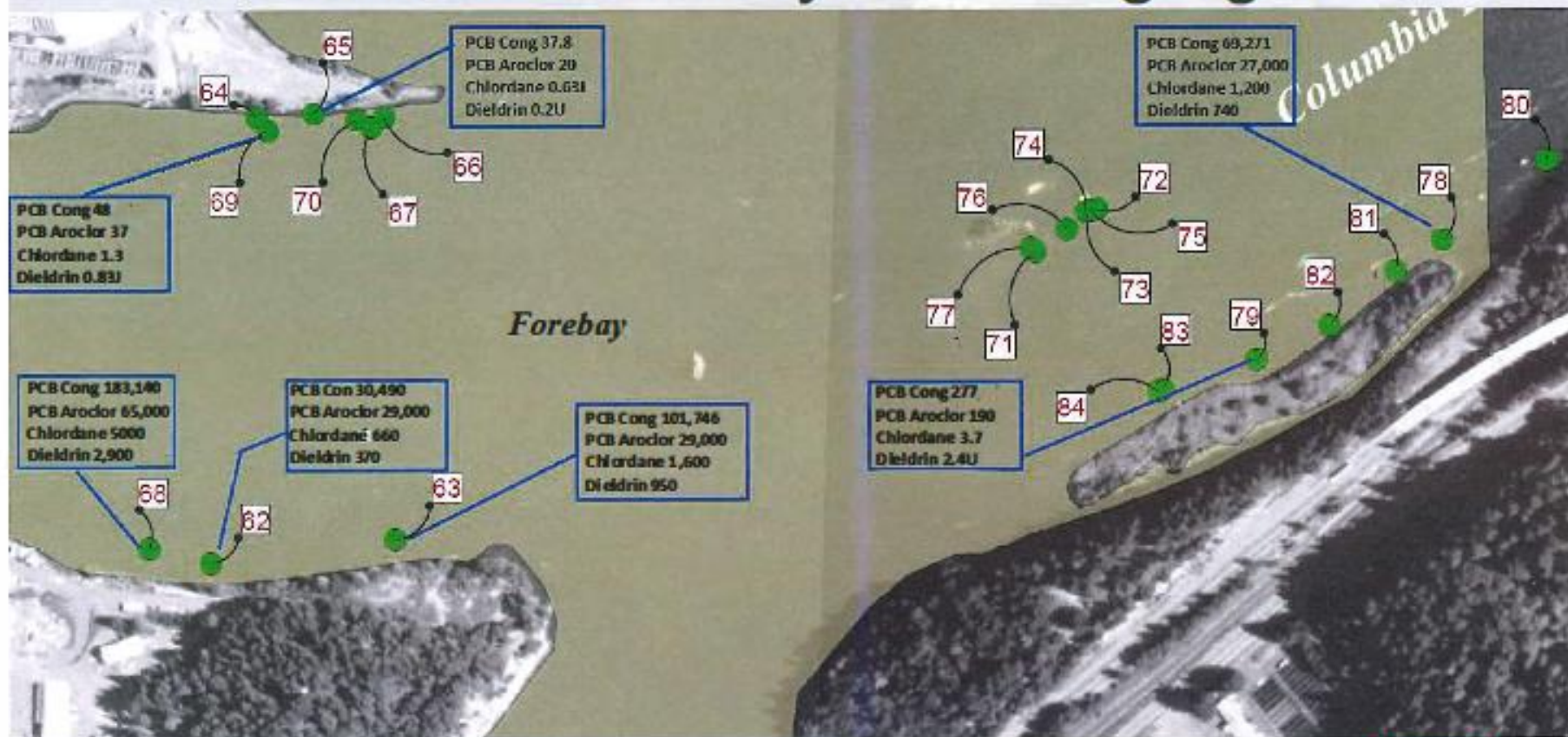
Above Risk-based Conc	Upland	In-River
PCBs	x	x
pesticides	*	*
PAHs	x	*
metals	x	*
mercury	x	*
phthalates	x	*



Upland OU - 4 Areas of Potential Concern (AOPCs)



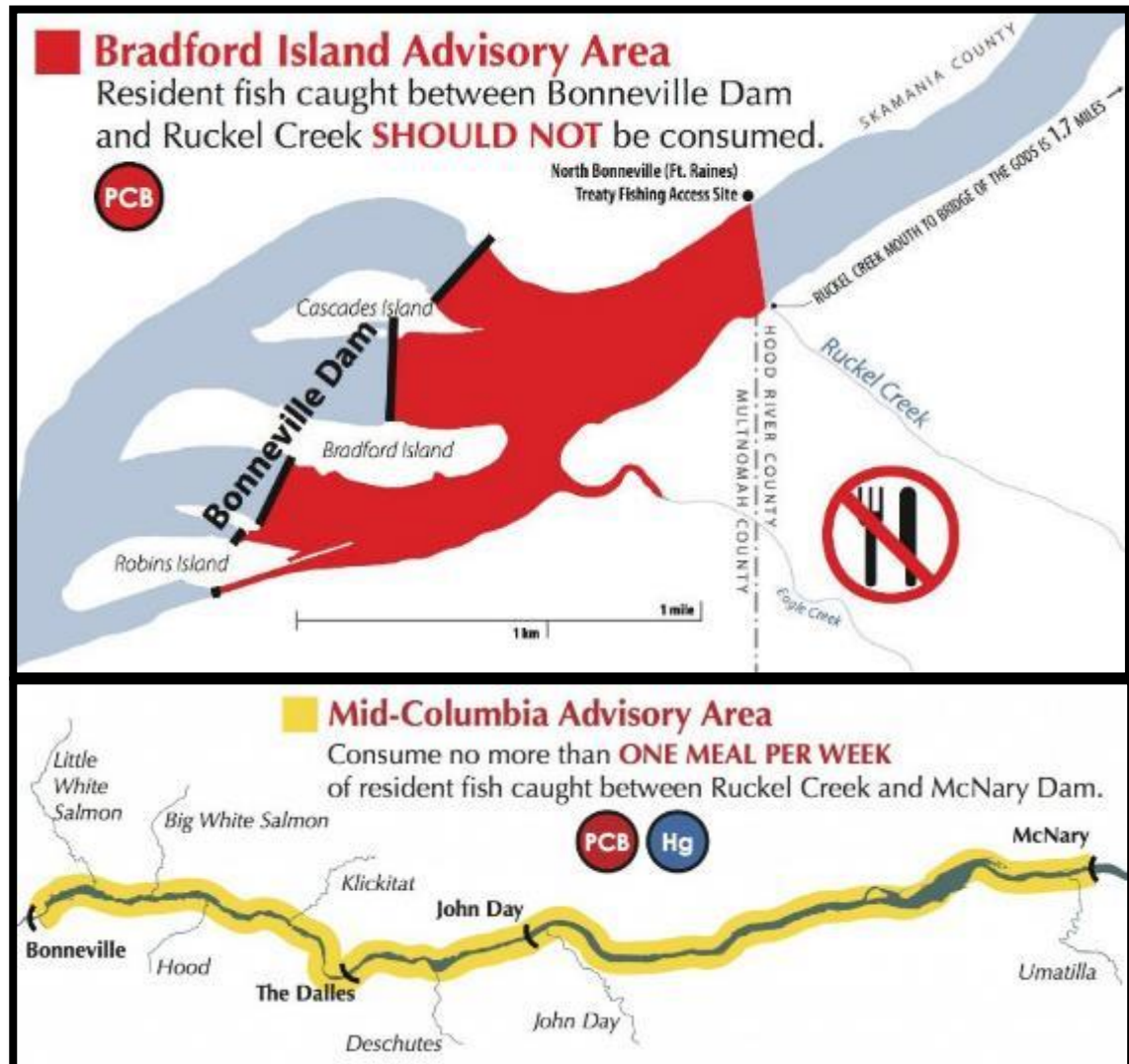
2011 PCB, Gamma Chlordane, and Dieldrin in Forebay Bass, ug/kg ww



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

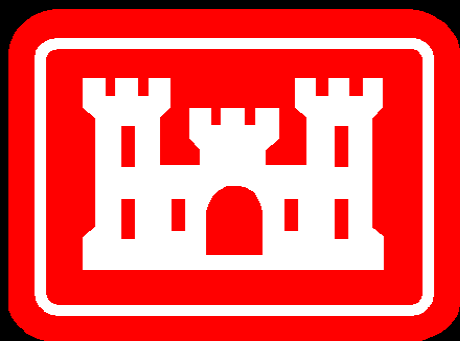
COLUMBIA RIVER

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®**



DEPARTMENT OF
ECOLOGY
State of Washington



State of Oregon
Department of
Environmental Quality



Extra slides if questions

In-River Hazardous Materials Recovered



Inerteen capacitor



Coupling capacitor

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 $\mu\text{g/kg}$ (ppb) (2011)
 - screening level = 0.57 ppb

BONNEVILLE DAM FISH ADVISORY AT BRADFORD ISLAND



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

<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>