

MAPPING COLUMBIA RIVER BASIN TOXIC HOT SPOTS





Chum
Salmon

Columbia River (threatened)



Chinook
Salmon

S Snake River Fall (threatened)
Snake River Spring/Summer (threatened)
Lower Columbia River (threatened)
Upper Columbia River Spring (endangered)
Upper Willamette River (threatened)



Steelhead

S Snake River Basin (threatened)
Lower Columbia River (threatened)
Middle Columbia River (threatened)
Upper Columbia River Spring (endangered)
Upper Willamette River (threatened)



Sockeye
Salmon

S Snake River (endangered)



White
Sturgeon

Kootenai River (endangered)



Bull
Trout

Clark Fork (threatened)

 Canadian Dams

 Federal Dams

 Non-Federal Dams

 Blocked Passage

Columbia River Basin

PACIFIC OCEAN

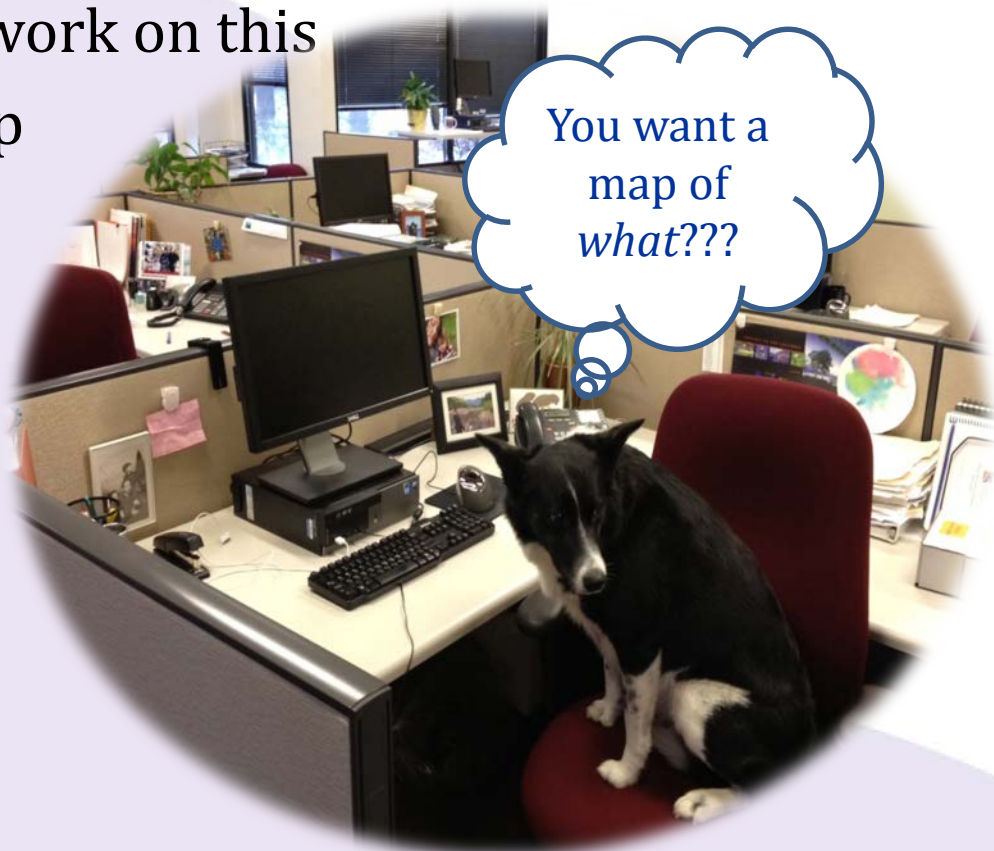


NPCC Fish and Wildlife Program 2014

- **Sub-strategy** -Provide flows and habitat conditions of adequate quality and quantity for improved survival of anadromous and native resident fish populations on the mainstem Columbia and Snake rivers, as well as **improving water quality in Basin tributaries, to promote healthy and productive populations of anadromous and native resident fish and wildlife.**
- **General measures to address toxic contaminants** – To support ongoing regional efforts to identify, assess and reduce toxic contaminants in the Columbia River Basin, the **Council may initiate and will participate in, support, and coordinate periodic science/policy workshops on characterizing the state of the science related to toxic contaminant issues. The Council will also assist regional parties in advancing public education and information on toxics issues....**
- ...The federal action agencies should partner with and support ongoing federal, state, tribal, and regional agencies' efforts to:
 - **Monitor, assess and map high priority toxic contaminant hot spots in the Columbia River Basin and evaluate their relationship, if any, to the development and operation of the hydrosystem**
 - Identify and assess the effects of toxic contaminants, alone or in combination with other stressors, on native fish, including sturgeon and lamprey, wildlife, and food webs in toxic hot spots in the Columbia River Basin

Tasks for the Working Group

- Establish a subcommittee to work on this
- Identify objectives for the map
 - What do want it to show?
 - What will it be used for?
 - Who is the intended audience?
 - Where will it be housed?
 - Who will maintain it?
- Identify available datasets
 - Of these, which are “mappable”
 - Of these, which could be made “mappable” relatively easy
- Identify a GIS guru with time, funding
- OR identify cost estimate for GIS contractor



Some areas will have more data than others!

– Compilation of Data in lower Columbia

- GIS database
- Identification of hot spots by “classes” of toxics

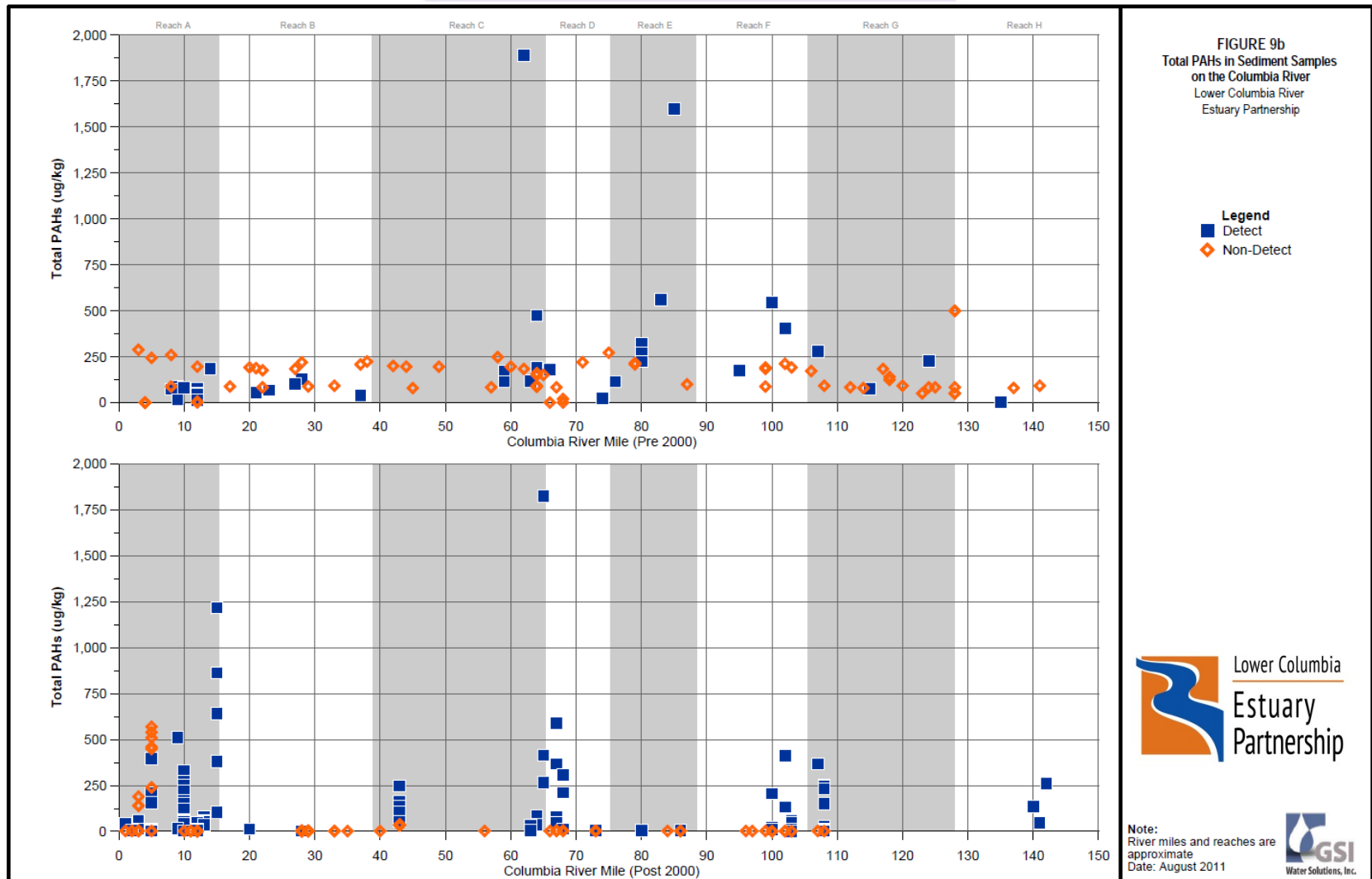


FIGURE 8

Total PAHs in Sediment Samples
Lower Columbia River Estuary Partnership

LEGEND

Sample Location

- ◆ Detect
- ◇ Non-Detect

Total PAHs (ug/kg)

- ◆ 0 - 465¹
- ◆ 465 - 4022²
- ◆ 4022 - 22800³
- ◆ 22800 - 44792⁴
- ◆ > 44,792

Proposed Monitoring Sites (1999)

- * Suspended Sediment
- * Streambed Sediment

All Other Data

- Study Area
- River Regions
- Counties
- City Limits
- Watercourses
- Waterbodies

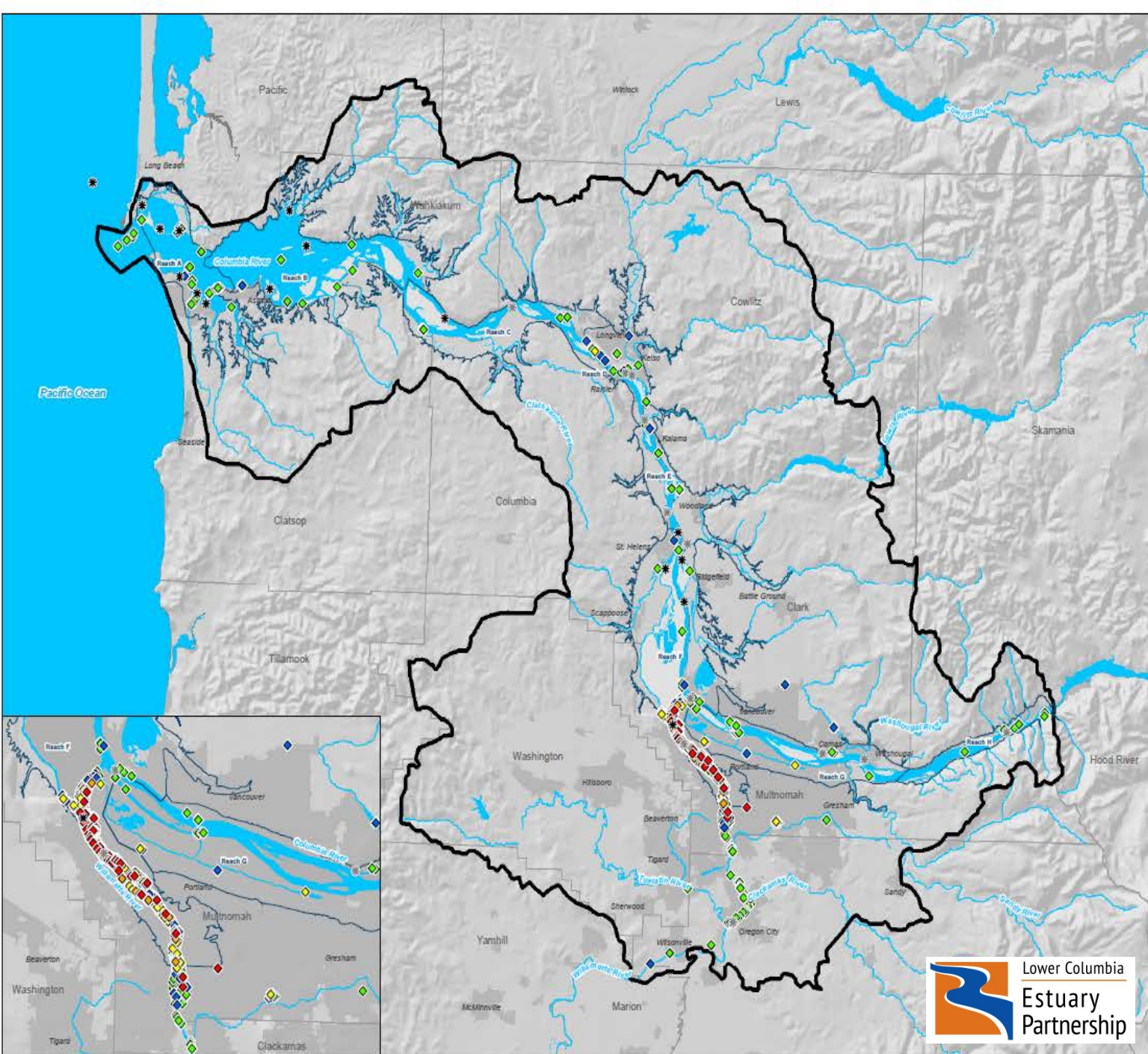
NOTES

1. Natural break
2. DOE Sediment Guideline Effects Range Low (ERL)
3. Portland Harbor Focused Preliminary Remediation Goal Eco Benthic Probable Effects Concentration Sediment Quality Guideline
4. DOE Sediment Guideline Effects Range Medium (ERM)



MAP NOTES:

Date: August 4, 2011
Data Sources: ESRI, LCREP, USGS, NOAA, EPA, DEQ, DOE, LWG





Columbia River Site Prioritization: Objective

- “Identify hazardous waste sites impacting the Tribe’s aquatic resources along the Columbia River and its tributaries.”
- Task 1: “Site Identification Master List and Map”
- Task 2: “Screening and Prioritization”

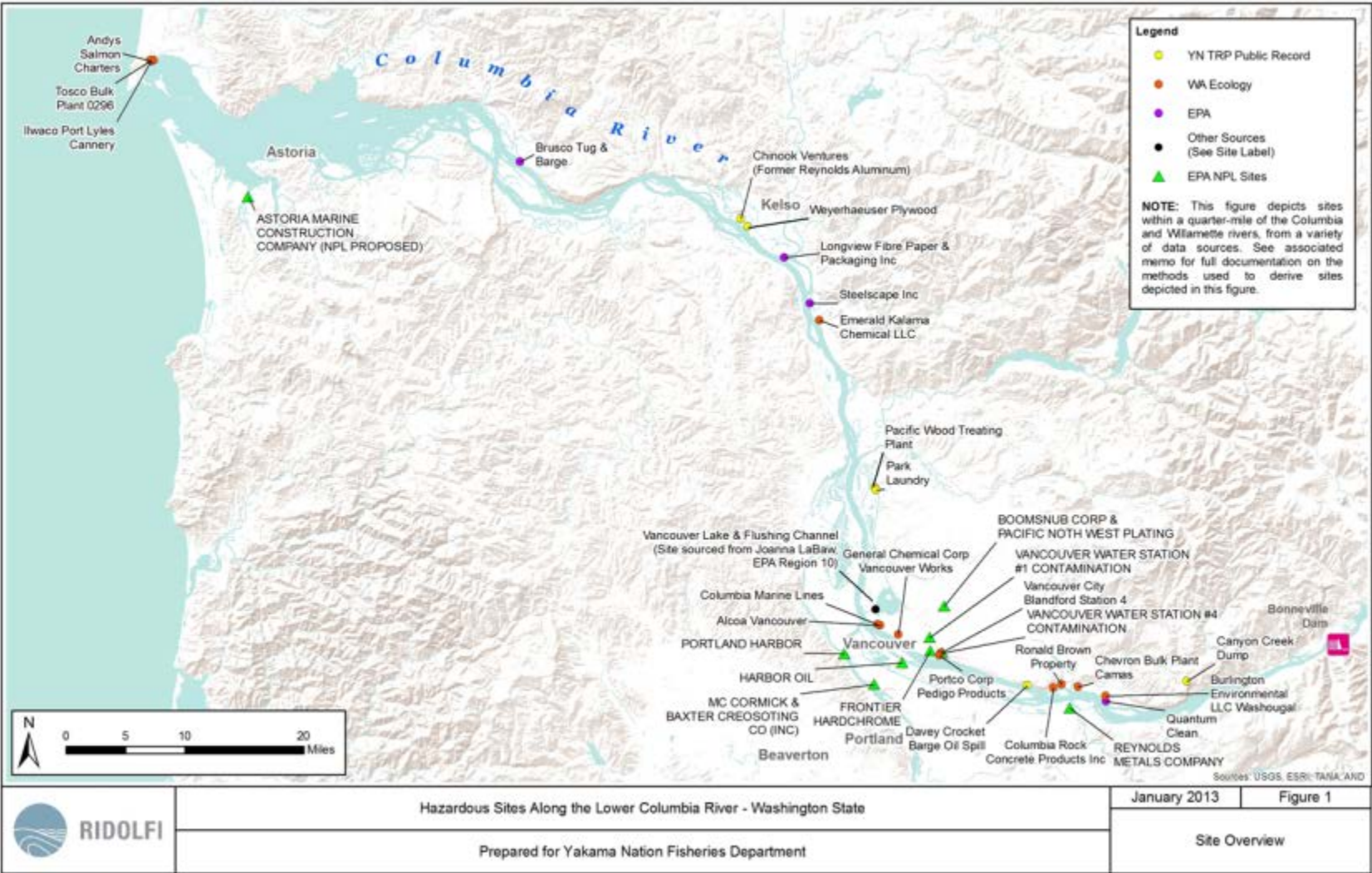


Columbia River Site Prioritization: Data collection

- Federal-Level: EPA Facility Registry System (FRS)
- State-Level: WA Ecology, OR Dept. of Environmental Quality
- Tribal: Yakama Nation TRP Sites of Interest dataset.
- Merging databases and addressing conflation issues.
- 114,000 individual sites identified

DRAFT Priority Toxic Clean up sites (Yakama Nation)

Lower Columbia River - WA



Who wants to help keep Mary Lou smiling???

