

# Upper Columbia RMU Update and *Project Priorities*

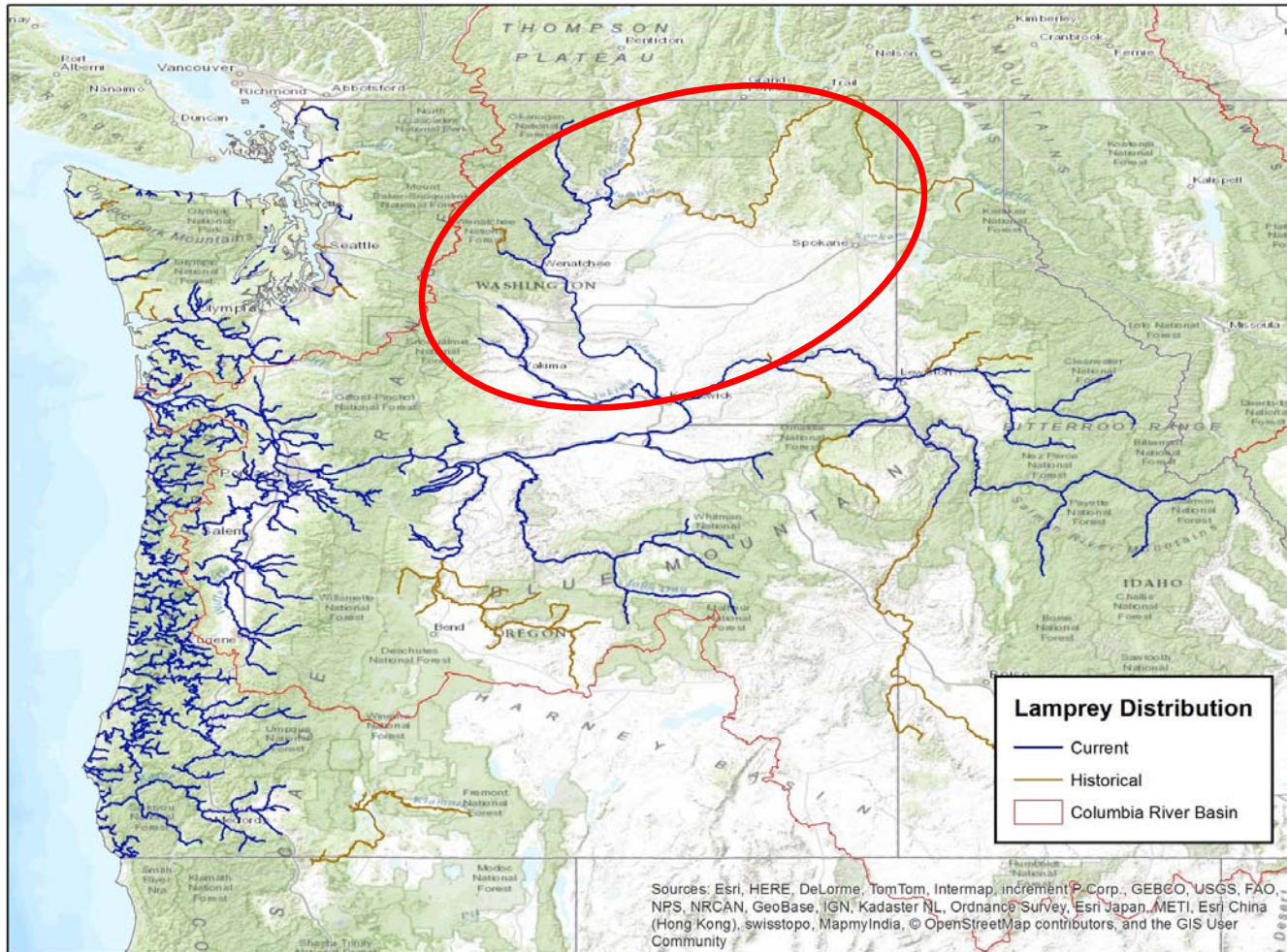
## **Presentation to the Conservation Team**

USFWS Pacific Lamprey Conservation Agreement

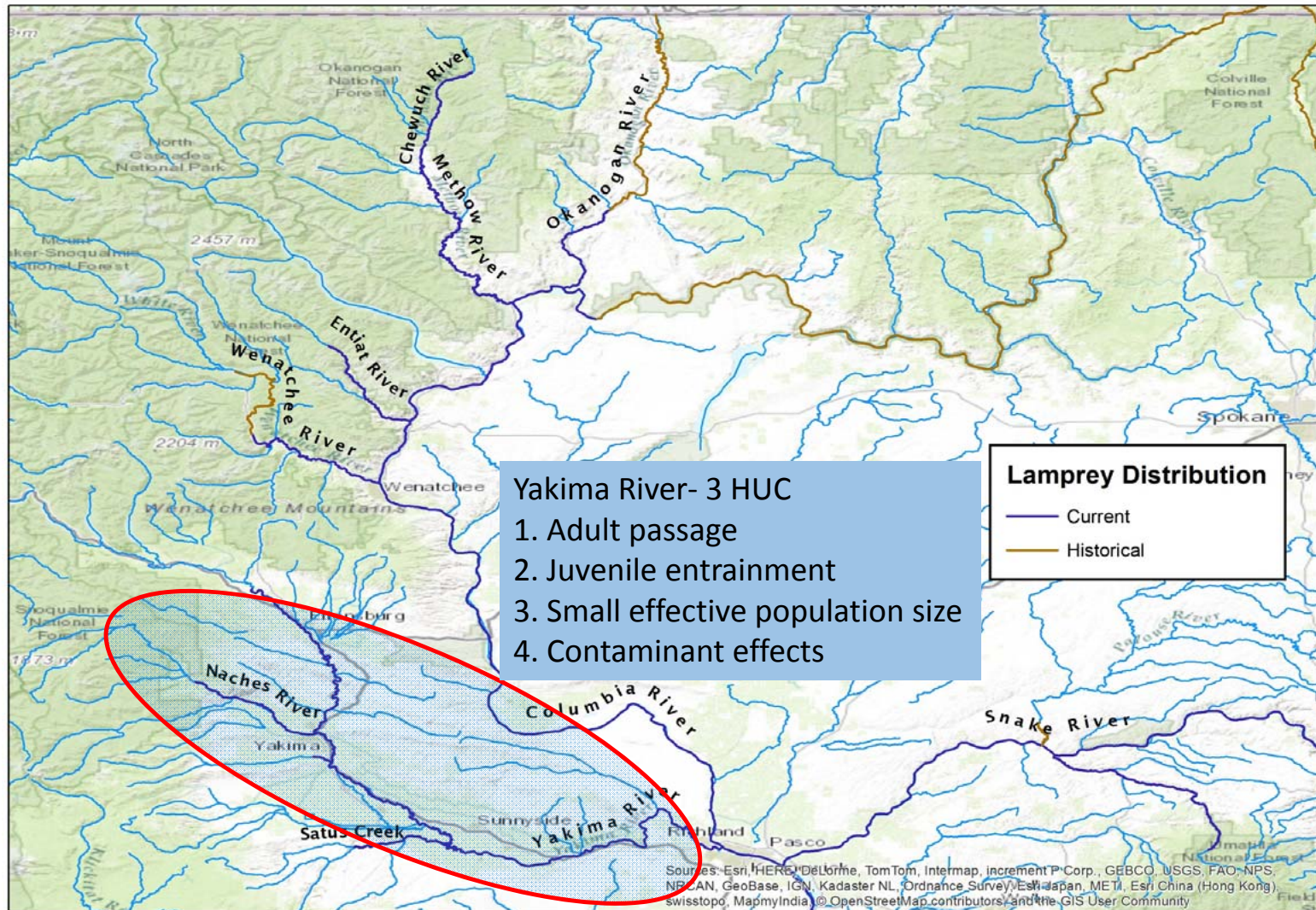
June 13, 2015

RD Nelle – Bob Rose

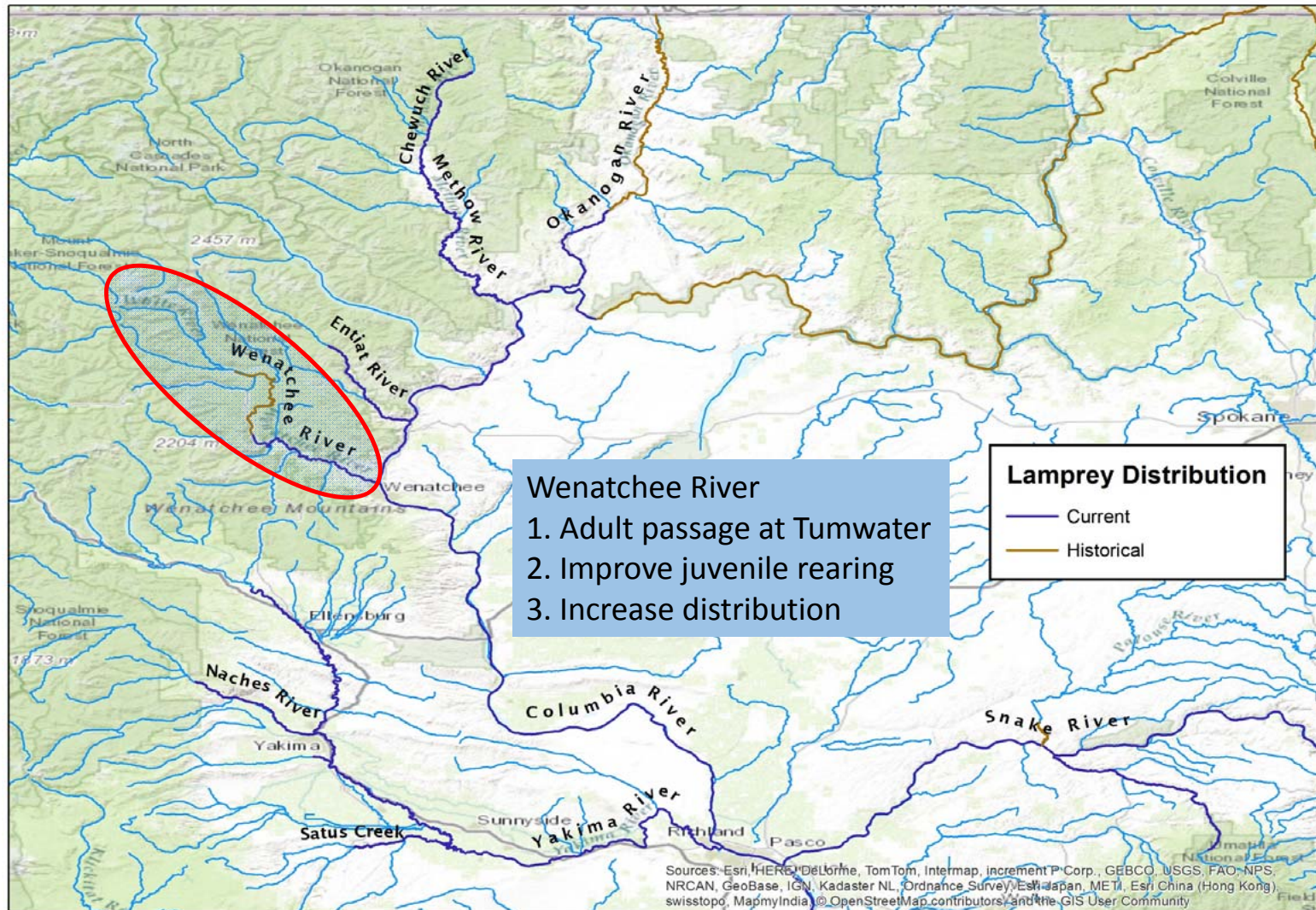
# Upper Columbia Regional Management Unit



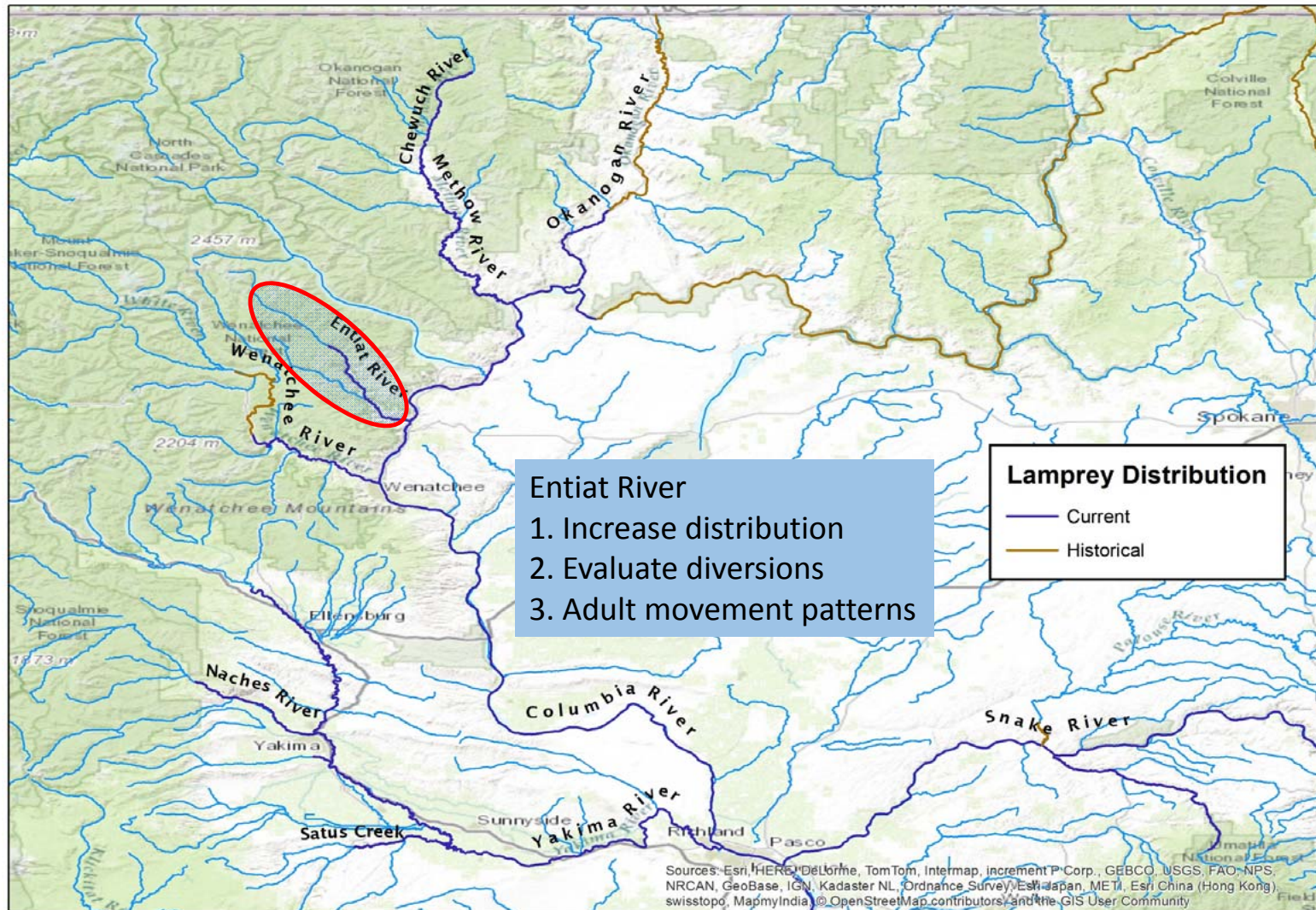
## Regional Implementation Meeting Results



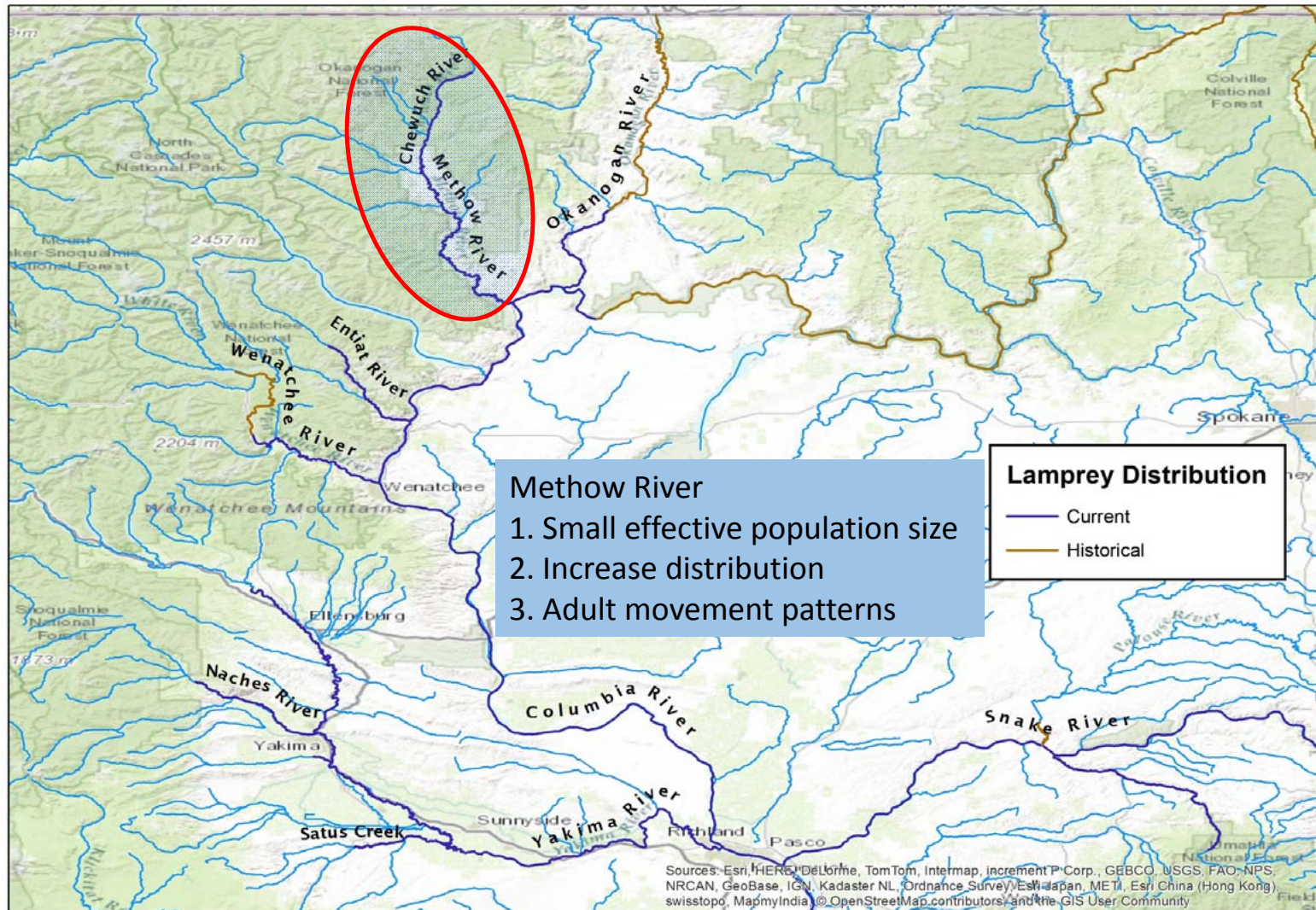
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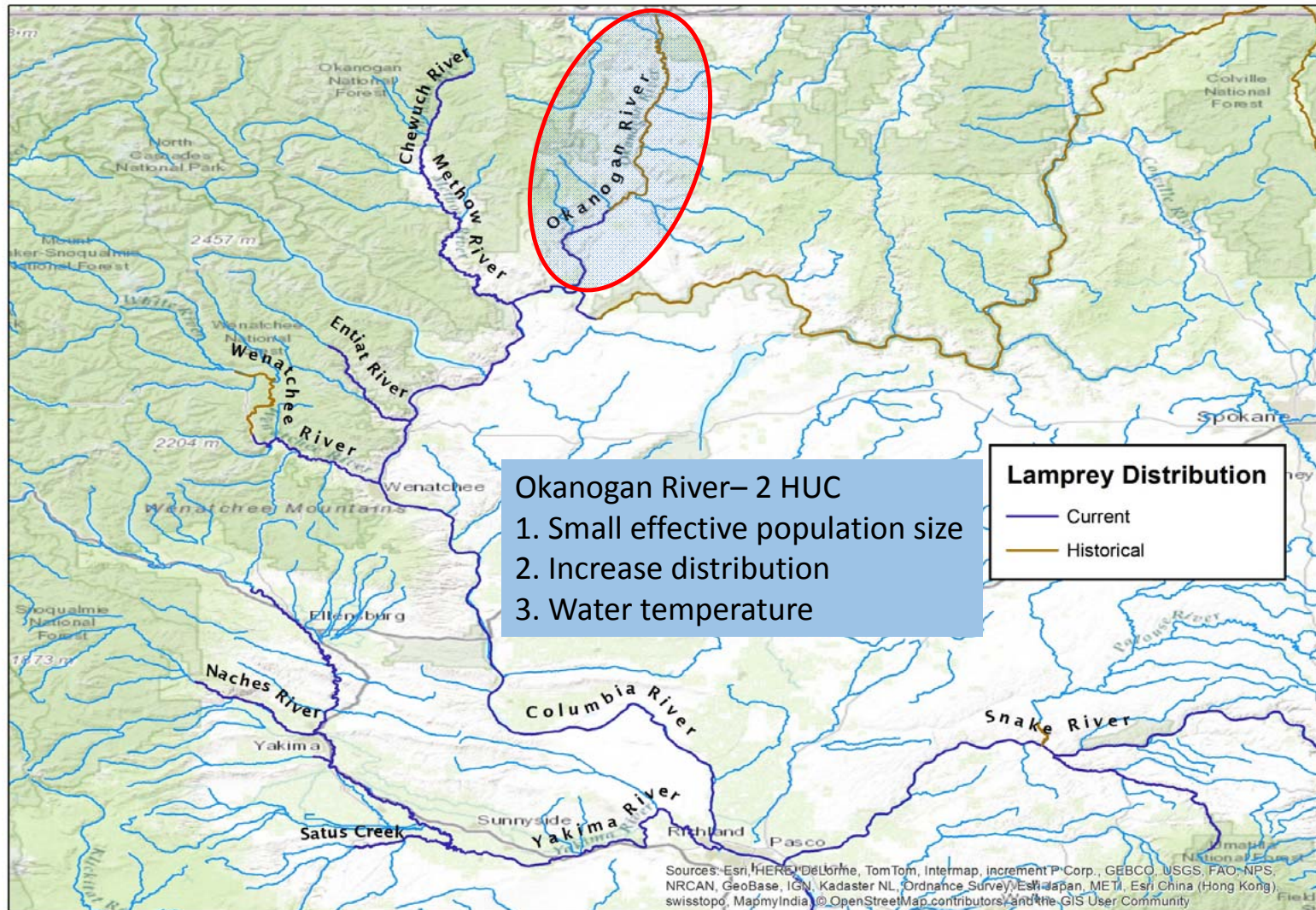
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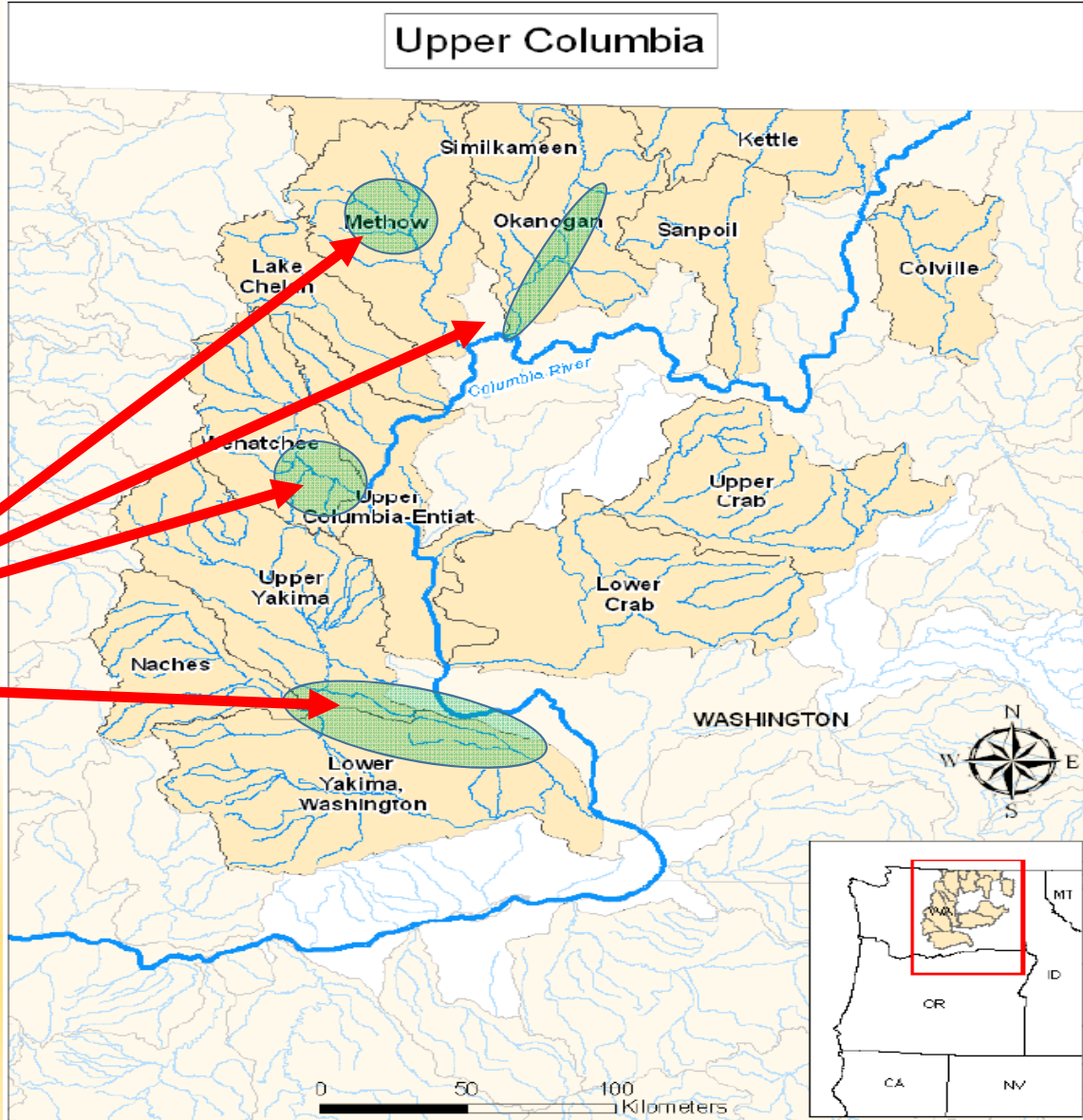


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# Upper Columbia



Areas of  
Emphasis

# Summary of Threats - Draft

Key Threats	Okanogan	Methow	Entiat	Wenatchee	Yakima	Combined Score for Threats (H=3, M=2, L=1)
Adult Passage	H	L	L	M	H	8
Juvenile Passage (Entrainment)	L	L	L	M	H	8
Dewatering & Flow Mgmt.	M	M	L	M	H	10
Stream & Floodplain Degradation	M	M	M	M	M	9
Water Quality - Toxics	M	M	M	M	H	11
Predation	L	L	L	L	M	6
Small Population Size	H	H	M	H	H	14
Mainstem Passage	H	H	H	H	H	15
Climate Change	H	M	M	M	H	12

# Project Priorities 2015

1. Tributary Adult Passage  
RMU – wide, emphasis on Yakima
2. Reduction of Entrainment of Juveniles – Tributaries  
Yakima (Sunnyside, Wapato) – Wenatchee (Dryden)
3. Toxicological Evaluations  
primarily Yakima River – application region wide

# Selection of Priorities

1. Where coordinated and collaboration of activities already exist.

*We have been working on many elements for 3-4 years*

2. High assurance the Threat is a threat – High Feasibility.

*Previous studies indicate / identify threat*

3. Consensus within key entities associated with the projects.

*Collaboration and acknowledgement of need is relatively high*

*USFWS, BOR, YN, WDFW, USGS.*

*Still working with Chelan County PUD in different venue (RRFF)*

# Project Priorities 2015

## Tributary Adult Passage

**Facilities – Ownership:** BOR (Yakima), Chelan PUD (Wenatchee) and Misc. irrigation districts throughout. Okanogan - ?

**Objective:** Implementation of passage improvement structures based on previous monitoring (radio-telemetry/PIT tag evaluation of passage) as well as effectiveness monitoring of the improvement (PIT tagging, trapping, automatic counter, etc.).

**Expected Outcome:** Improvement in adult passage and assessment of passage success for structures implemented.

**Feasibility:** High.

**Comments:** Substantial NRCS implementation cost share in the Yakima with previous support from the North Wasco Mitigation Fund.

# Project Priorities 2015

## Reduction of Entrainment of Juveniles – Tributaries

**Facilities – Ownership:** BOR

**Objective:** Identify ways to reduce or eliminate juvenile entrainment into irrigation diversions.

**Expected Outcome:** (1) Continuation of screen evaluations with improvement or modification and (2) development of physical models to evaluate options to prevent entrainment.

**Feasibility:** (1) High (Experimental Pilot Projects), (2) High

**Comments:** Past work between USFWS, YN and BOR has demonstrated “high” entrainment rates in some projects. Difficulties with screens. Modeling for total exclusion has not been undertaken.

# Project Priorities 2015

## Toxicological Evaluations

**Facilities – Ownership:** BOR (Yakima), Chelan PUD (Wenatchee) and Misc. irrigation districts throughout.

**Objective:** Evaluation of impacts from toxicology, namely vertical transmission and impacts on spawning adults and newly hatched larvae using artificially propagated fish.

**Expected Outcome:** Increased understanding of the toxicological impacts from vertical transmission and vulnerable life stages.

**Feasibility:** High.

**Comments:** Substantial cost share from CRITFC and USGS in the Yakima Basin.