

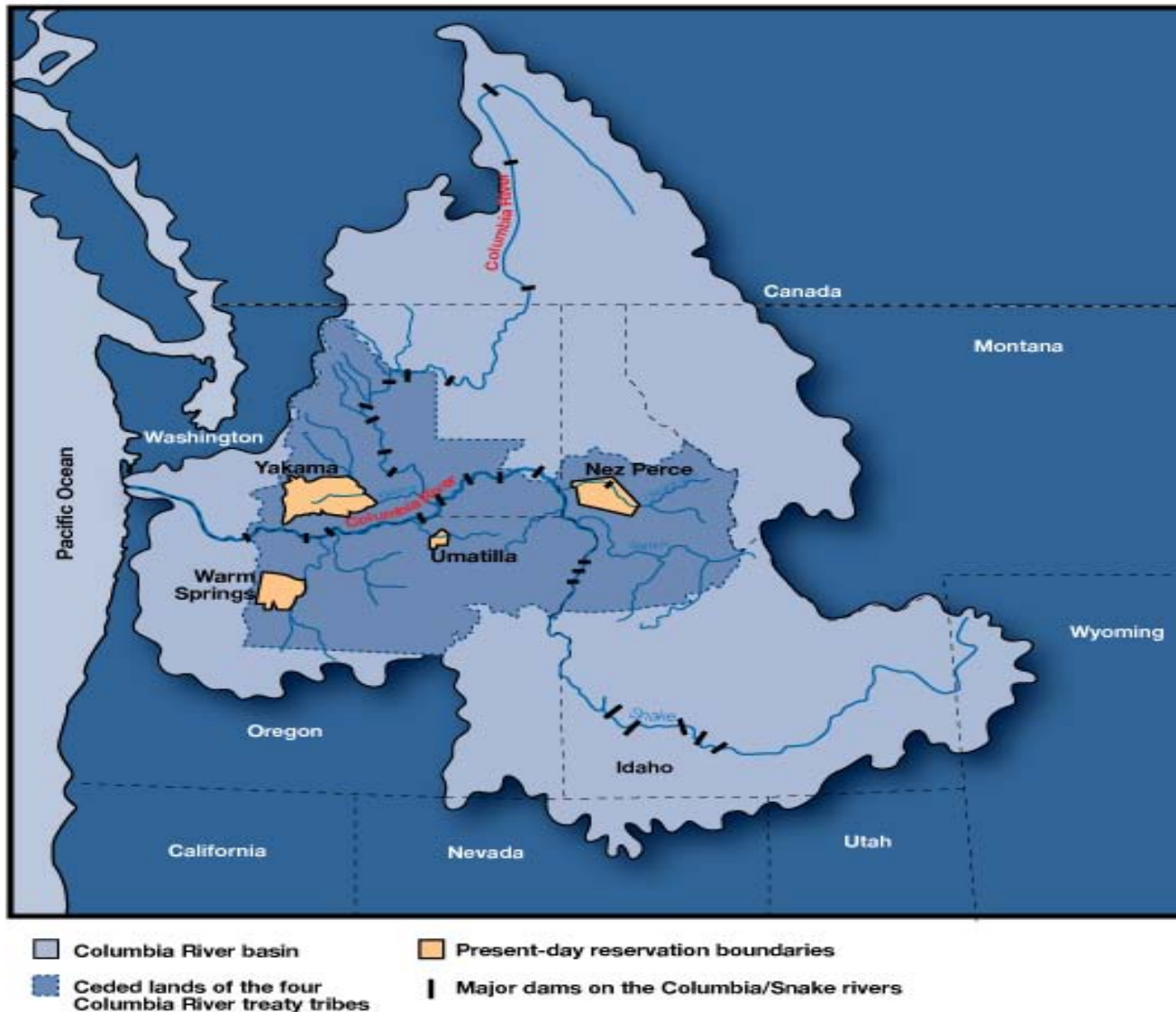


# Tribal Lamprey Restoration Plan For the Columbia River Basin

## First International Pacific Lamprey Propagation Workshop

Bob Heinith  
Columbia River  
Inter-Tribal Fish Commission

April 19, 2011



Map of Columbia Basin showing historical tribal ceded lands, current reservation boundaries and major federal and FERC licensed dams that affect Pacific Lamprey.

# Columbia River Basin

Canada  
U.S.



- Corps of Engineers Dams
- Dams owned by Others
- △ Bureau of Reclamation Dams



# **Tribal Pacific Lamprey Restoration Plan Vision and Goal**

## **Plan Vision:**

- Pacific lamprey are widely distributed within the Columbia River Basin in numbers that fully provide for ecological, tribal cultural and harvest utilization values.

## **Plan Goal:**

- Immediately halt population declines. Reestablish lamprey as a fundamental component of the ecosystem by 2018. Restore Pacific lamprey to sustainable, harvestable levels throughout the historical range and in all tribal usual and accustomed areas.

Figure 1. Relationship of Project Objectives to the Pacific Lamprey Life Cycle

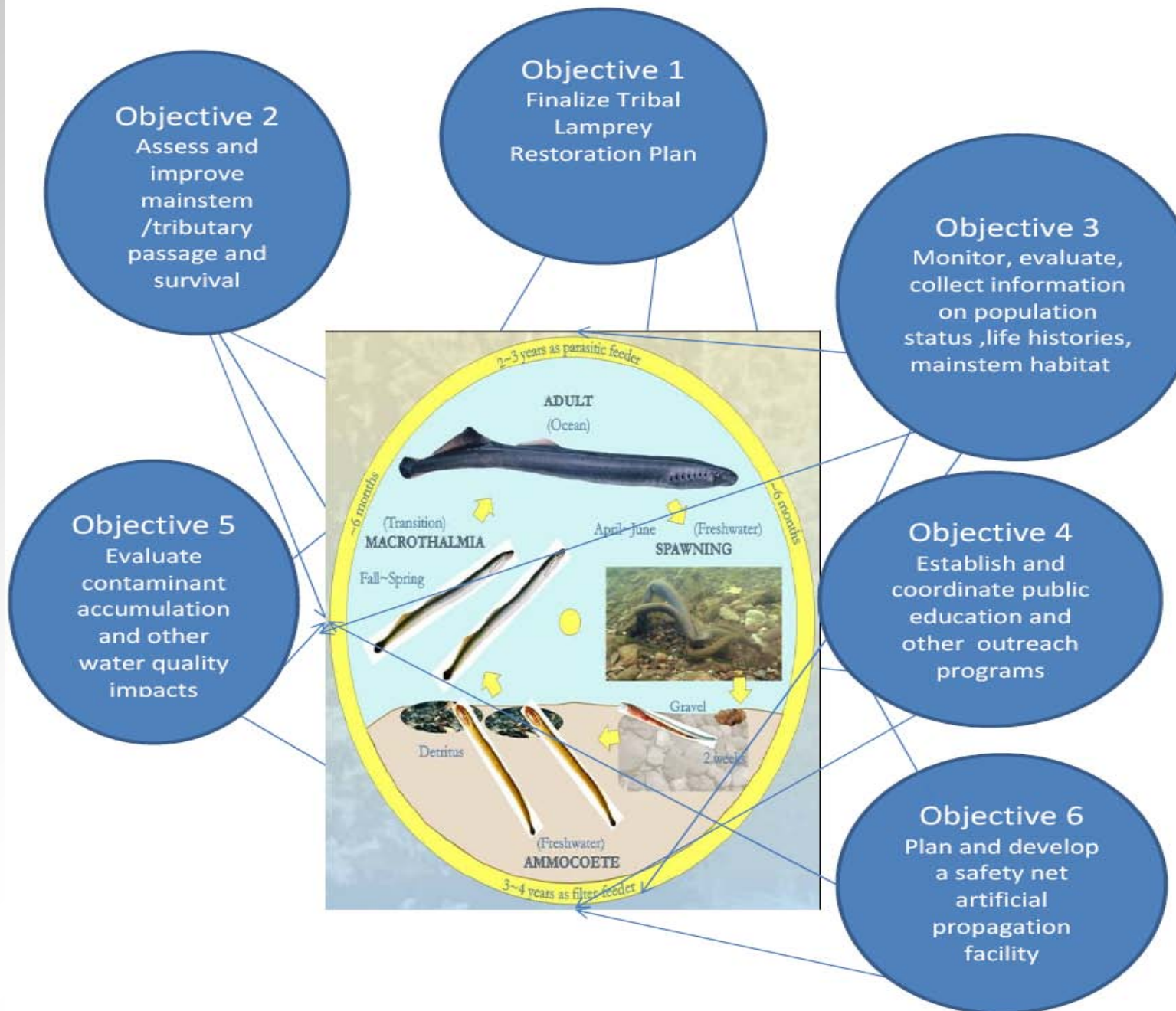
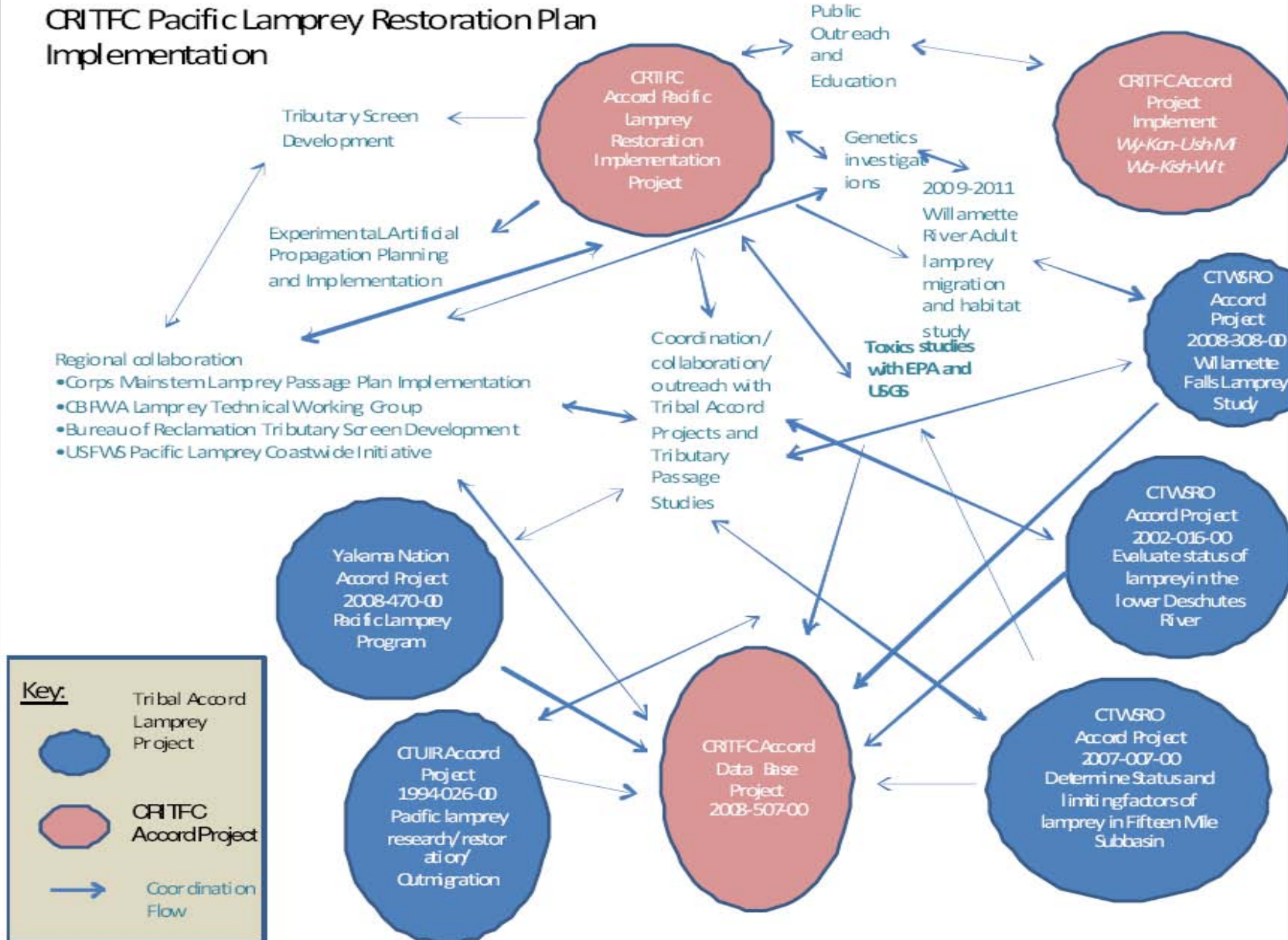
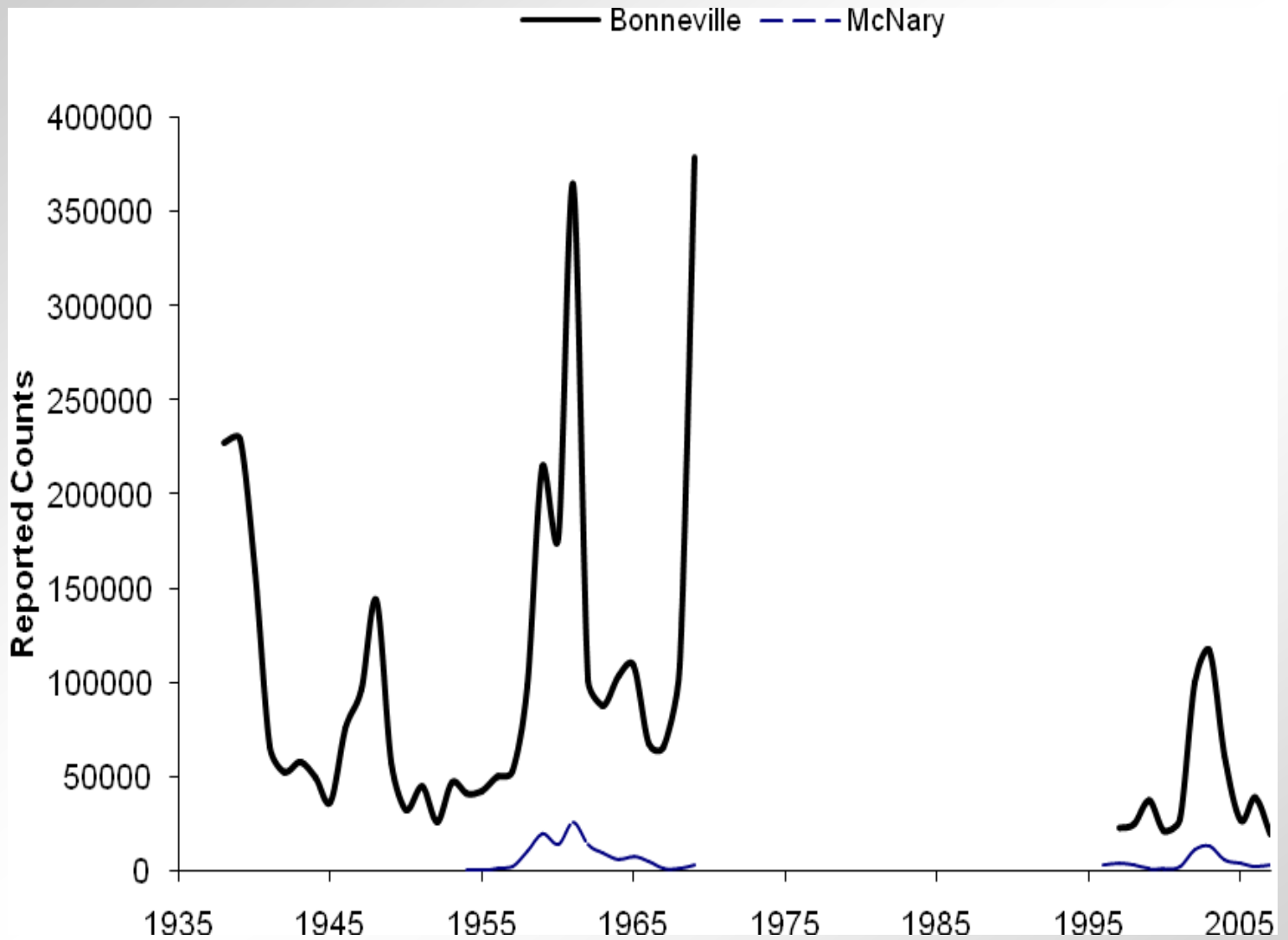


Figure 5. Relationship of Project Objectives to Tribal Accord Projects





Historical Mainstem Dam Lamprey Counts (from Kostow 2002)

# Recent Adult Lamprey Dam Counts

(\* 24 hr counts - others 16 hour day counts)

Year	Bonn	TDA	McN	Priest	Wells *	IH	LWG
2000	19001	8050	1,281	1,468	NA	315	28
2001	27,947	9061	2,539	1,624	261	203	27
2002	100,476	23,417	6,116	4,007	338	1,127	128
2003	117,027	28,995	13,325	4,339	1,408	1,702	282
2004	61,780	14,873	5,888	2,647	291	805	117
2005	26,625	8361	4,158	2,598	212	461	40
2006	39,925	6894	2,139	3,273	21	255	35
2007	37,170 *	6077	3,389	3,419	32	288	81 *
2008	45,104 *	4599	1530	5,083 *	7	266	61*
2009	19,429 *	2318	676	2714*	9	57	12*
2010	23,608*	1726	833	1114*	9	114	15*

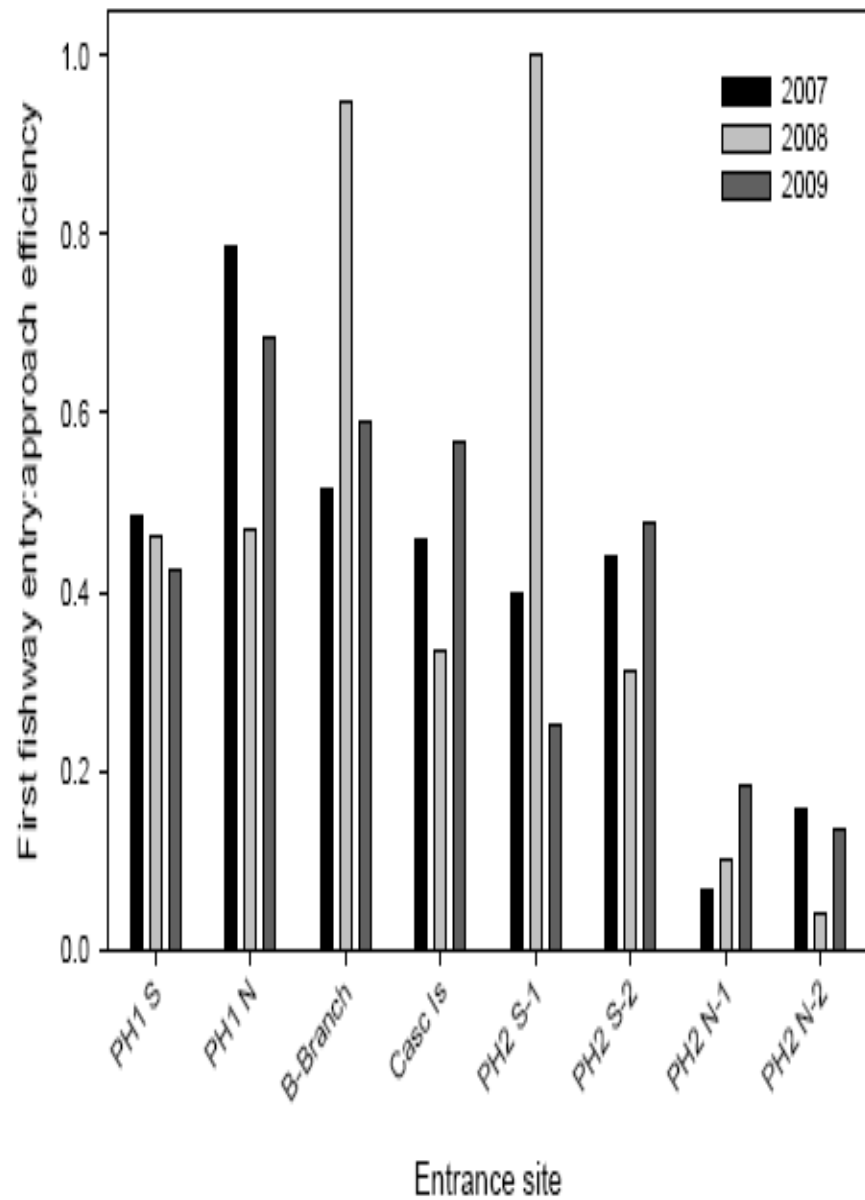
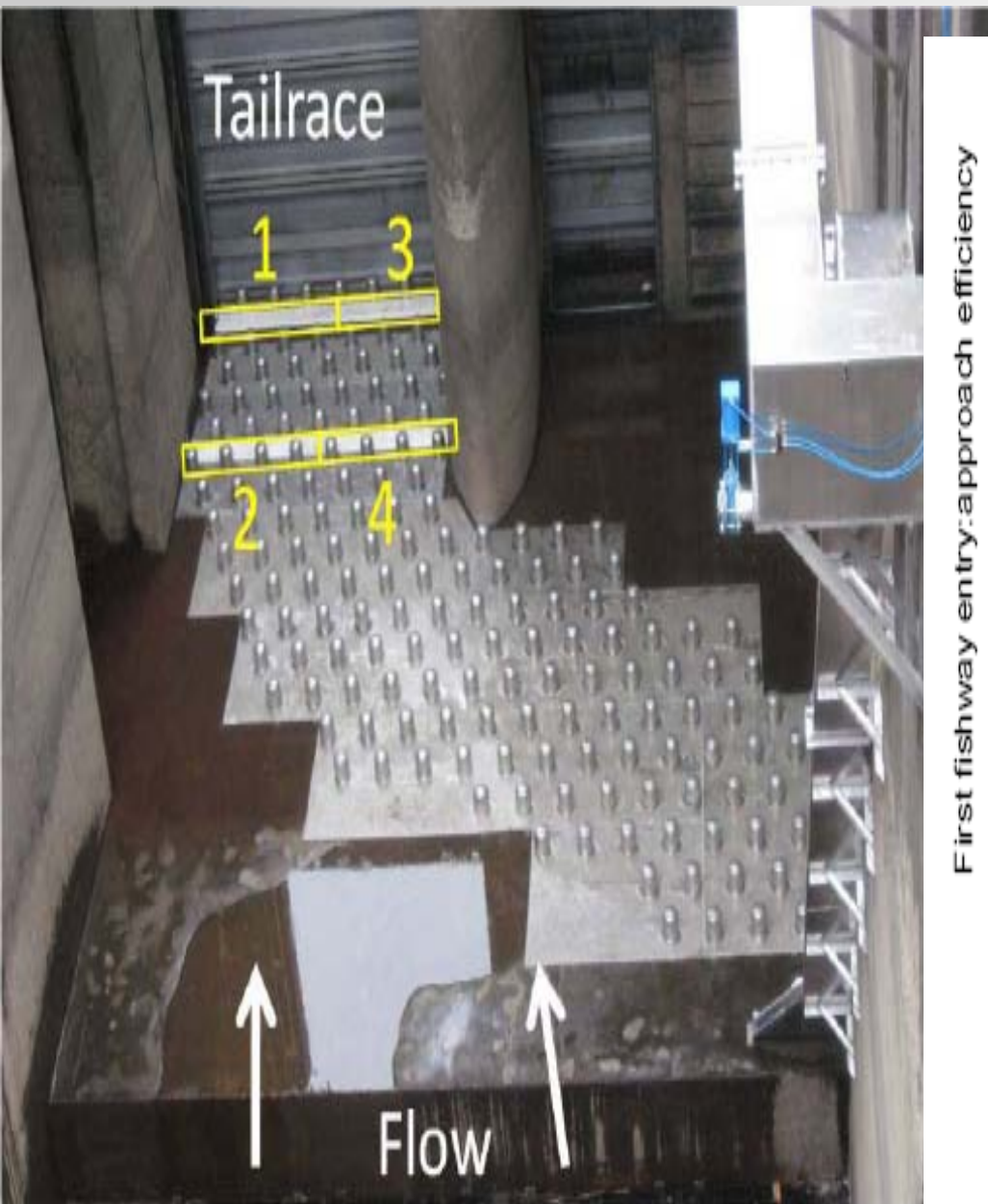
## Tribal Harvest

Due to very low numbers tribes forgo lamprey harvest at all mainstem areas including dams

As lamprey increase in number in the future, tribes may decide to harvest again at mainstem areas





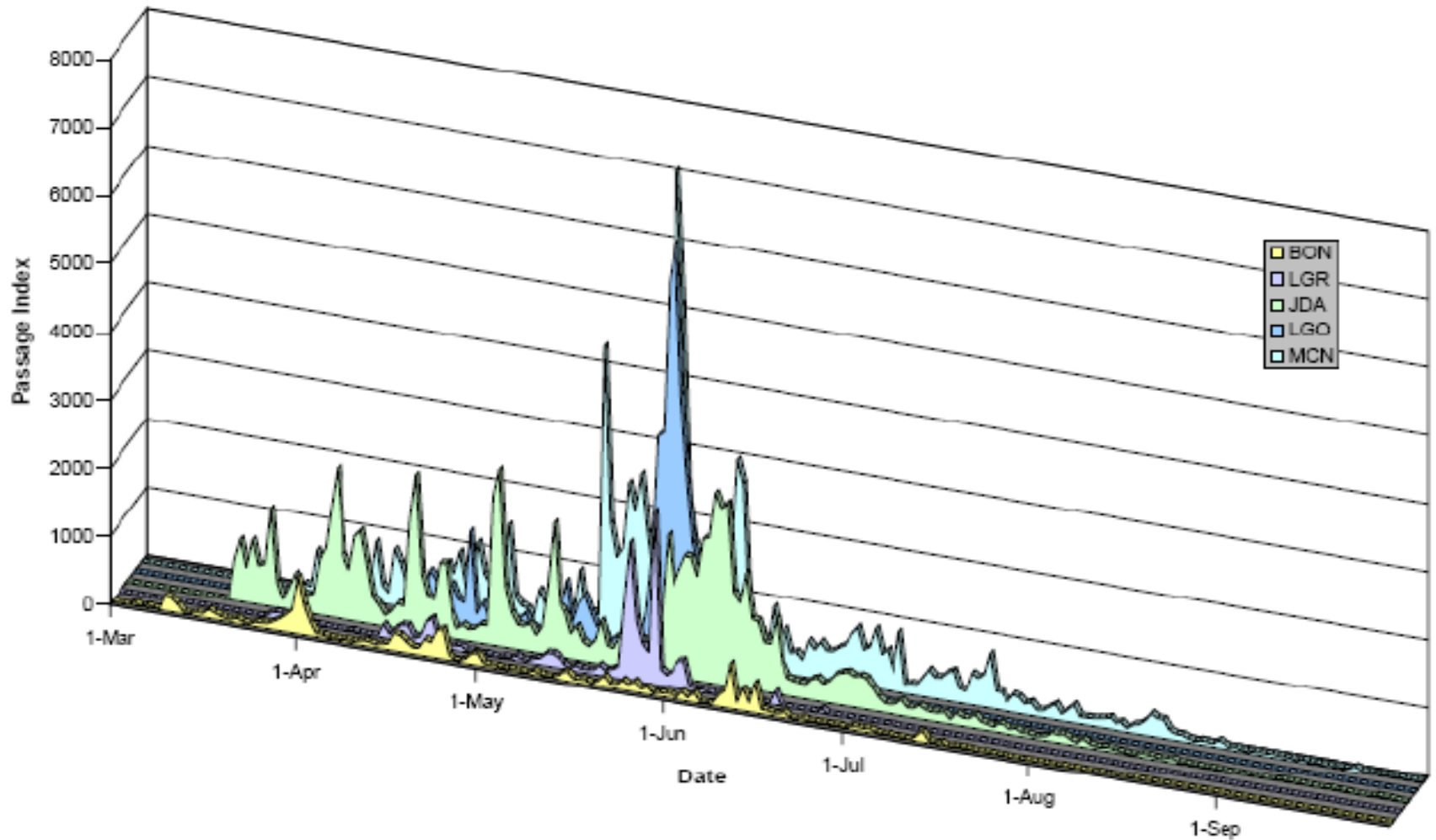








# Juvenile Lamprey Migration Timing at Mainstem Dams



# Mainstem Dam Screen Bypass Impacts



# Sampling for juvenile lamprey presence behind drum screen at Westland Diversion, Umatilla Basin



# Key Challenges to Pacific Lamprey Restoration

- *Serious declining status*
- *Inadequate passage*
- *Public Ignorance*
- *Salmon centric regional position*
- *Water quality-Climate Change*
- *Funding limitations (\$5-6 million/yr)*
- *Critical uncertainties (habitat, genetics, marine life history)*
- *Human population growth and demands*

