

2011 Yakima Basin Coho Phase II

Presented By:

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Acknowledgements

YN: Joe Jay Pinkham III

Conan Northwind

Quincy Wallahee

Andrew Lewis

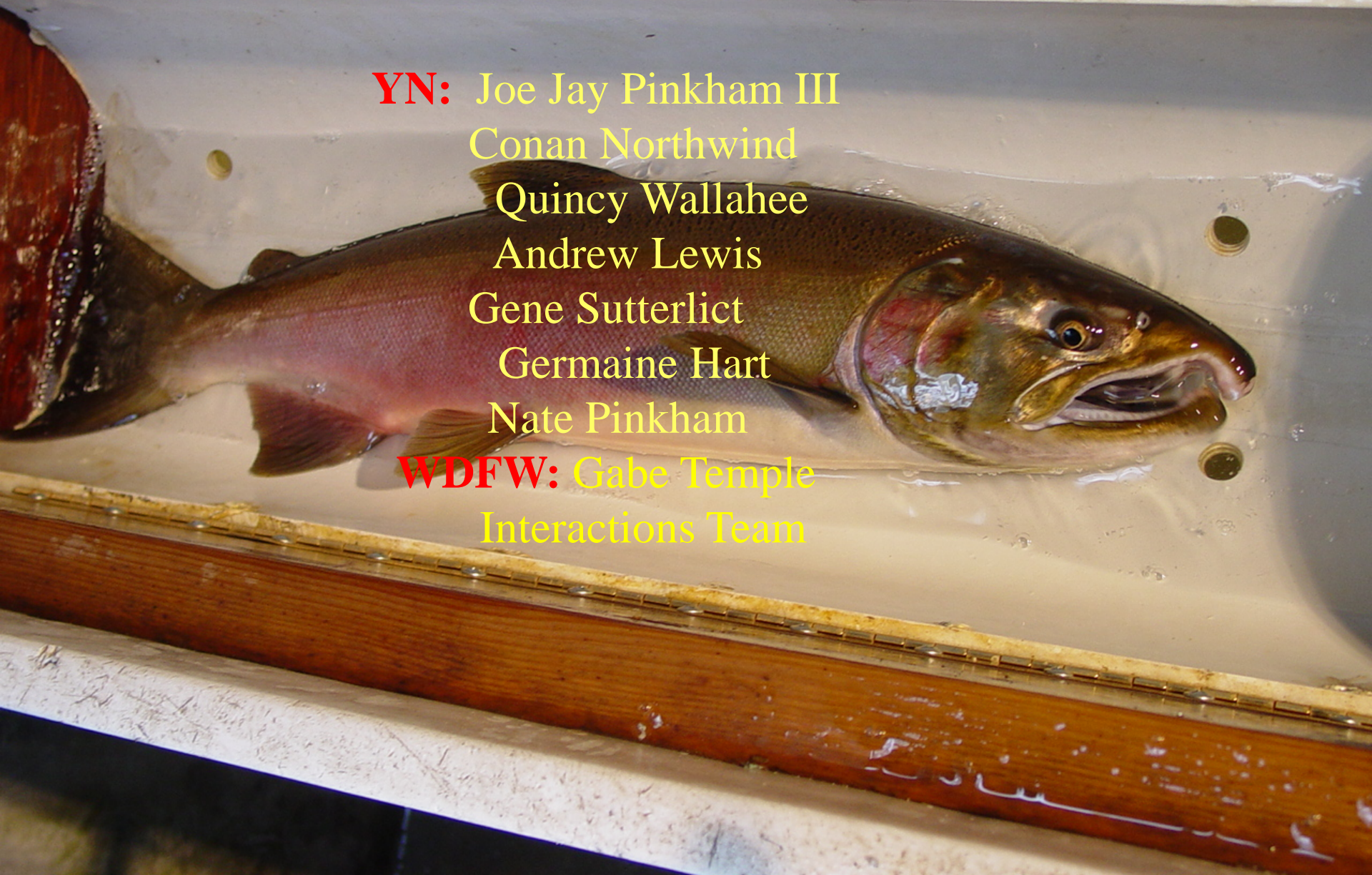
Gene Sutterlict

Germaine Hart

Nate Pinkham

WDFW: Gabe Temple

Interactions Team



Background



Program Goal - Re-establish self-sustaining naturally spawning population of coho salmon in Yakima River

Phase I: 1999-2003 Complete

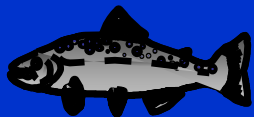


Feasibility *Interim Work: 2004-2006* Complete

Phase II: 2007-2011 Complete

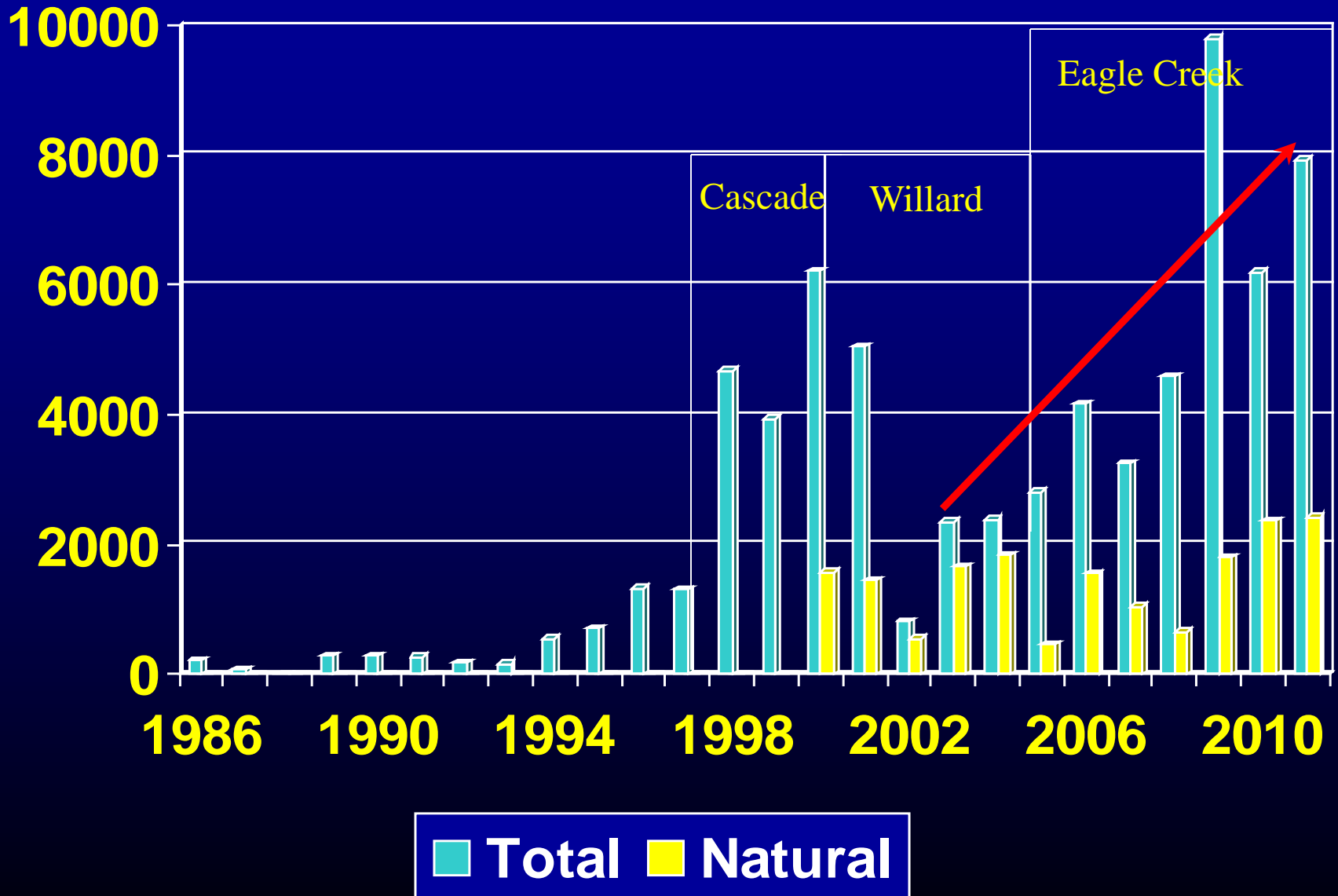


Coho Master Plan step I completed.



ISRP Step 1 Review: Summer 2012

Upper Yakima Coho Returns, 1986 – 2011



2011 Hatchery Coho Juvenile Acclimation Sites Yakima Basin

Volitional Release, April 20, 2011

Boone: 37,000

Holmes: 179,686

Lost Creek, 189,239

Stiles, 138,175

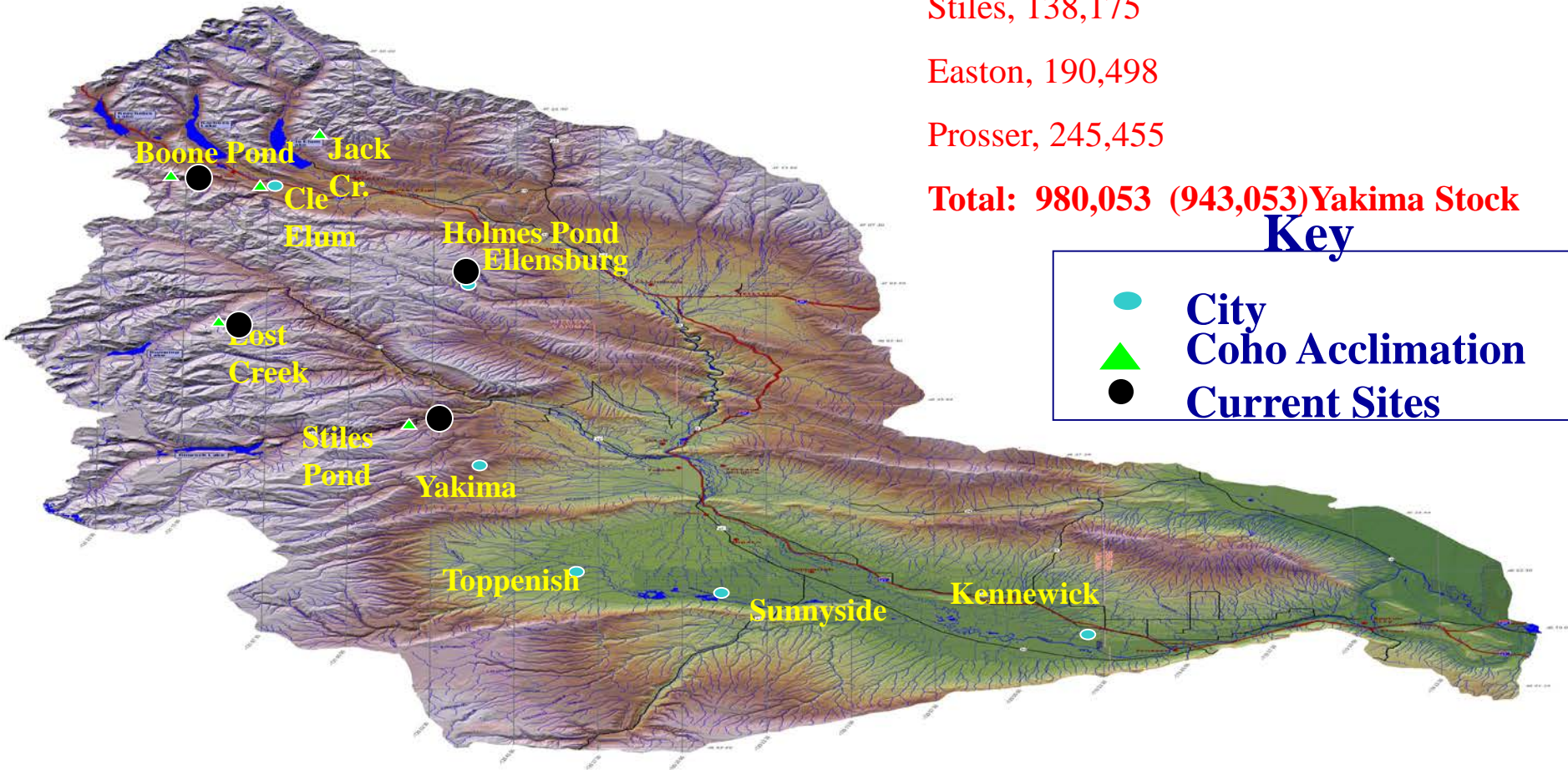
Easton, 190,498

Prosser, 245,455

Total: 980,053 (943,053) Yakima Stock

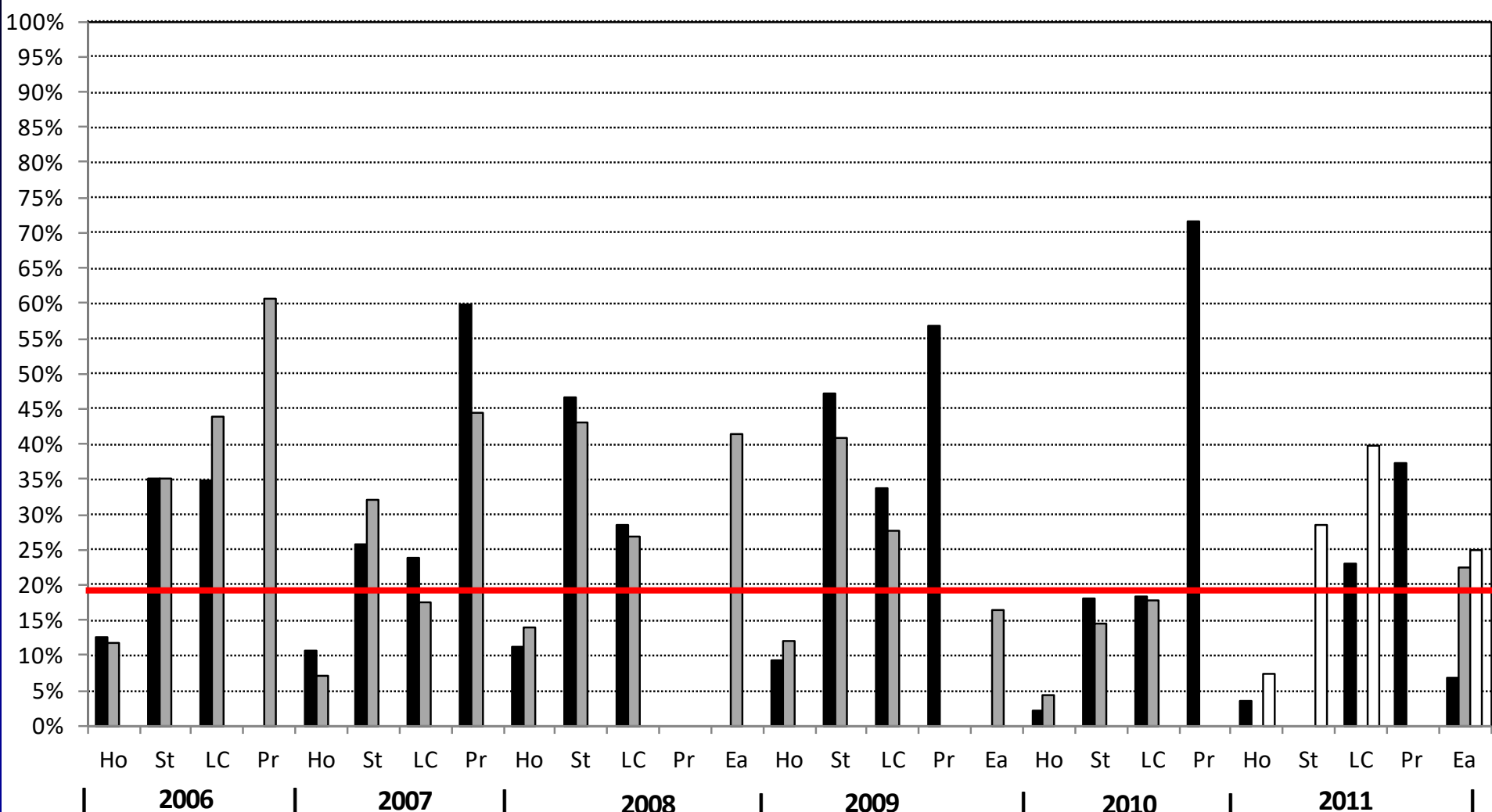
Key

-  City
-  Coho Acclimation
-  Current Sites



Outmigration-Year Coho 2006-2011 (2004-2009 Brood)

Time-of-Tagging-to- McNary Smolt Survival



Wild Coho: 2011 Spring Migrant Survivals to McNary Dam

- Wild Coho Survival

- Buckskin Slough 38% N= 218
- Cowiche Creek 82% N= 28
- Lost Creek 67% N= 10

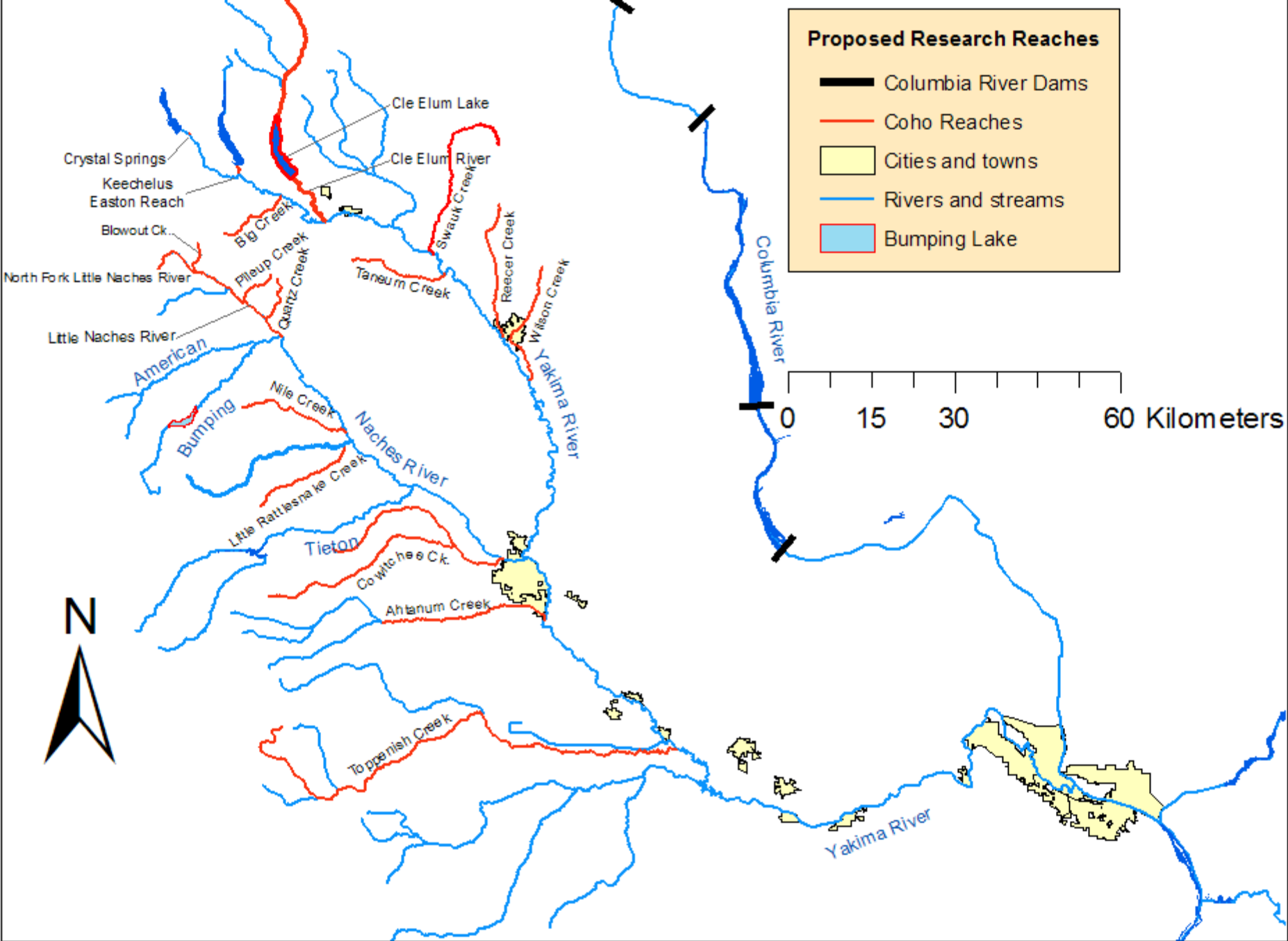
- Taneum Creek
 - 1 Yr Old 14% N=4515
 - 2 Yr Old .02% N=1817

Phase II (2007-2011)

- Objectives
 - Identify Key Tributaries offering the highest potential for Coho Reestablishment
 - Evaluate interactions with resident and anadromous fish already residing in tributaries
 - Increase the resiliency, and robustness of the Coho population in the Yakima Basin

ACTION

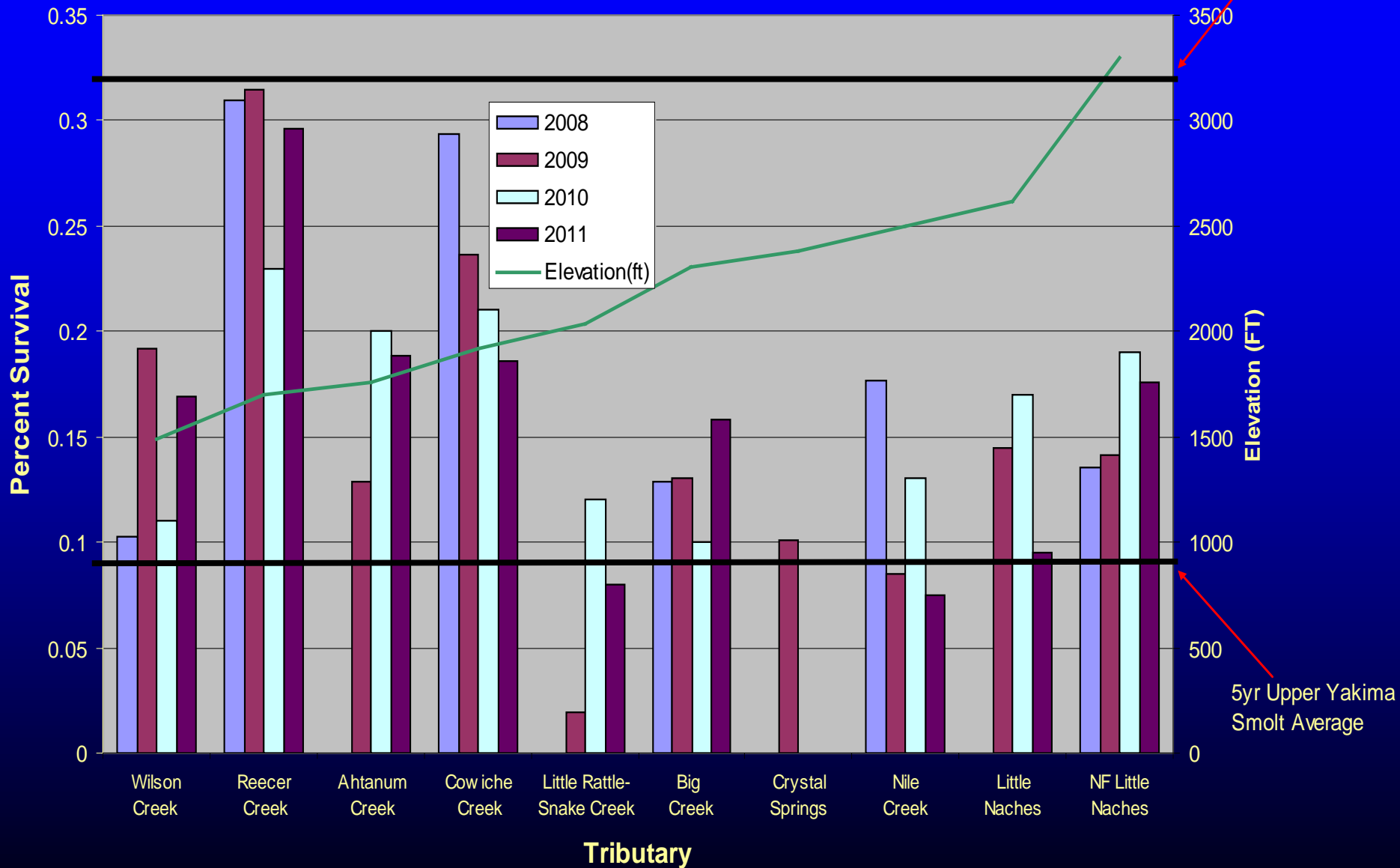
- Monitor Tributary Parr Releases
- Monitor Tributary Adults Releases
- Continue In Basin Brood Stock Development
- New Smolt Acclimation Areas (spread out the risk and increase survival)



Parr Releases 3,000 Pit tagged Coho per Tributary (70-85mm)



Summer Parr Survival To McNary Dam



Pit Tag Survivals to McNary Dam

Tributary	4 Year Average Parr Survival	3 Year Average SAR	Proposed Release	Estimated Adults
Cowiche Creek	28%	3%	50000	420
Nile Creek	10%	2%	20000	40
North Fork Little Naches	16%	1%	10000	16
Wilson Creek	28%	6%	70000	1176
Reecer Creek	29%	4%	100000	1160
Big Creek	13%	2%	30000	78
Ahtanum Creek	13%	1%	50000	65
Little Naches River	17%	3%	100000	510
Rattlesnake Creek	14%	1%	50000	70
Total			480000	3535

Swauk Creek

Teaway River

Little Creek

Rock Creek

Quartz Creek

Umtanum Creek

Taneum Creek

Cle Elum River

Kachess River

Cabin Creek

Manastash Creek

Coleman Creek

Cherry Creek

Whiskey Creek

Naneum Creek

Corral Creek

Mobile Acclimation

Rattlesnake Creek

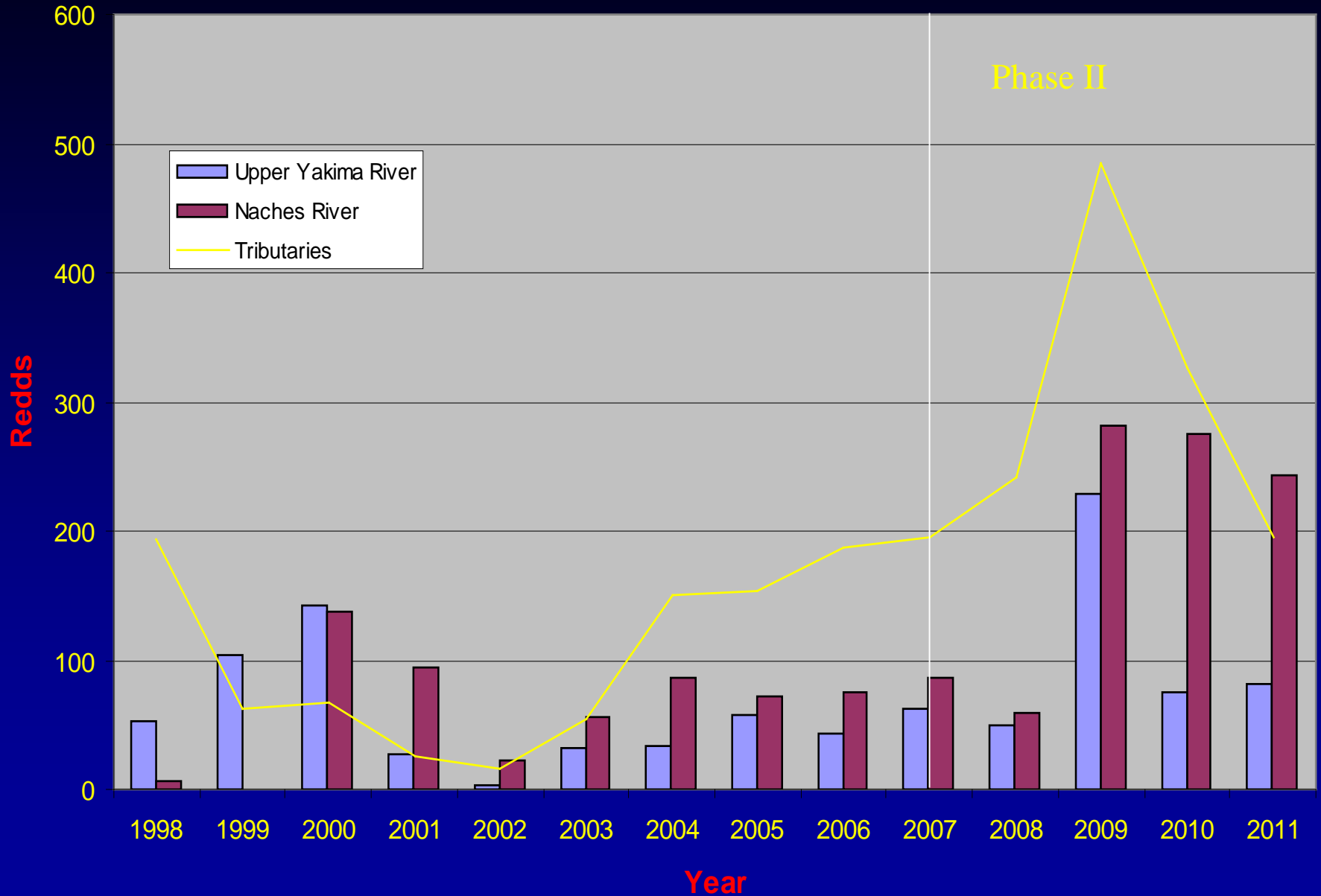


Mobile Acclimation Results

– 10,000 Smolts Acclimated March 16 – April 6

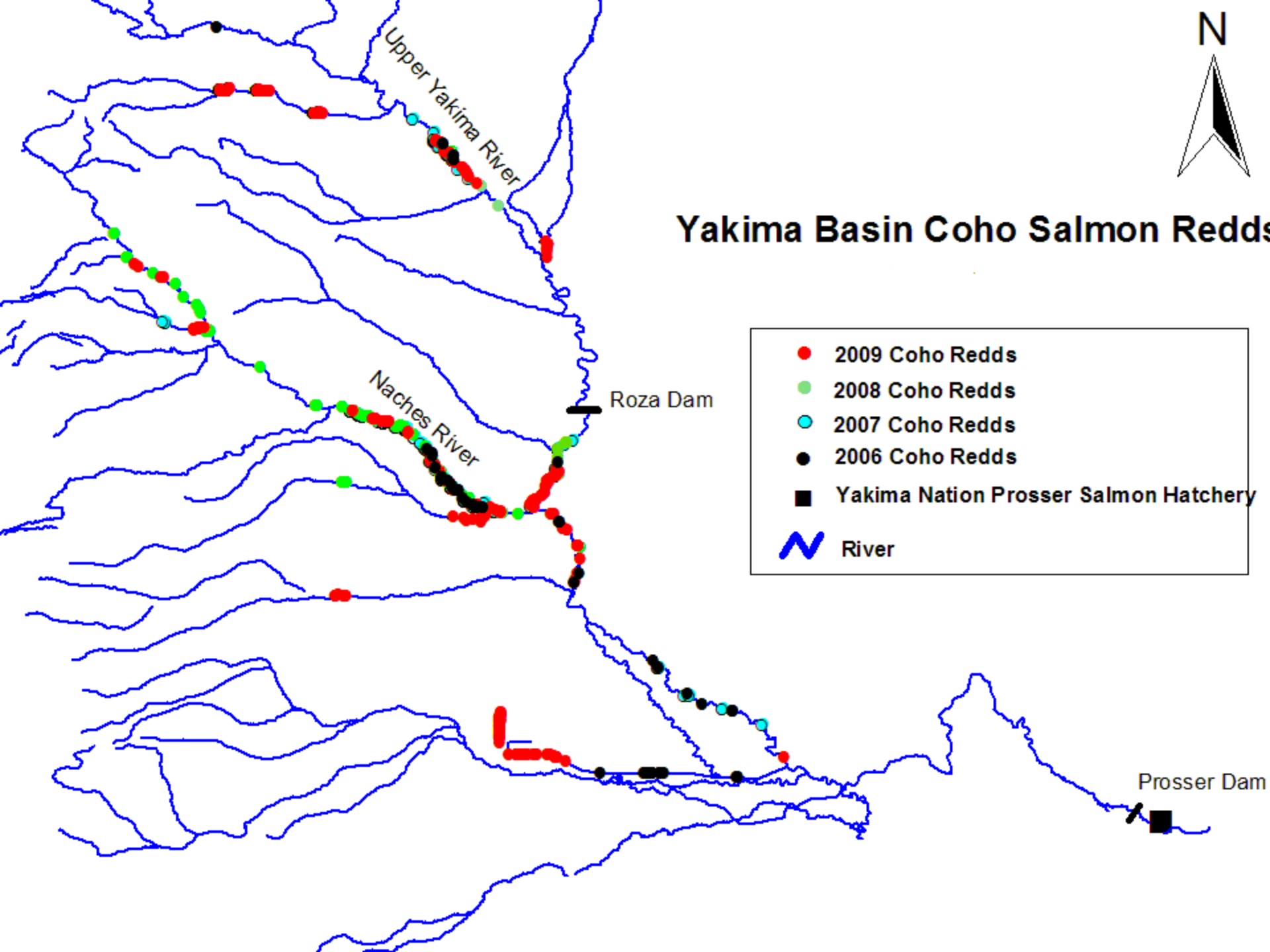
- 2009 Survival to McNary Dam
 - SF Cowiche Creek (47%)
- 2010 Survival to McNary Dam
 - SF Cowiche Creek (23%)
 - Rattlesnake Creek (8%)
- 2011 Survival to McNary Dam
 - SF Cowiche Creek (32%)
 - Rattlesnake Creek (0%) 90% the smolts died.
- 2012 Preliminary Survival to McNary Dam
 - SF Cowiche Creek (20%)
 - Rattlesnake Creek (10%)

Yakima Basin Coho Redd Counts 1998-2011

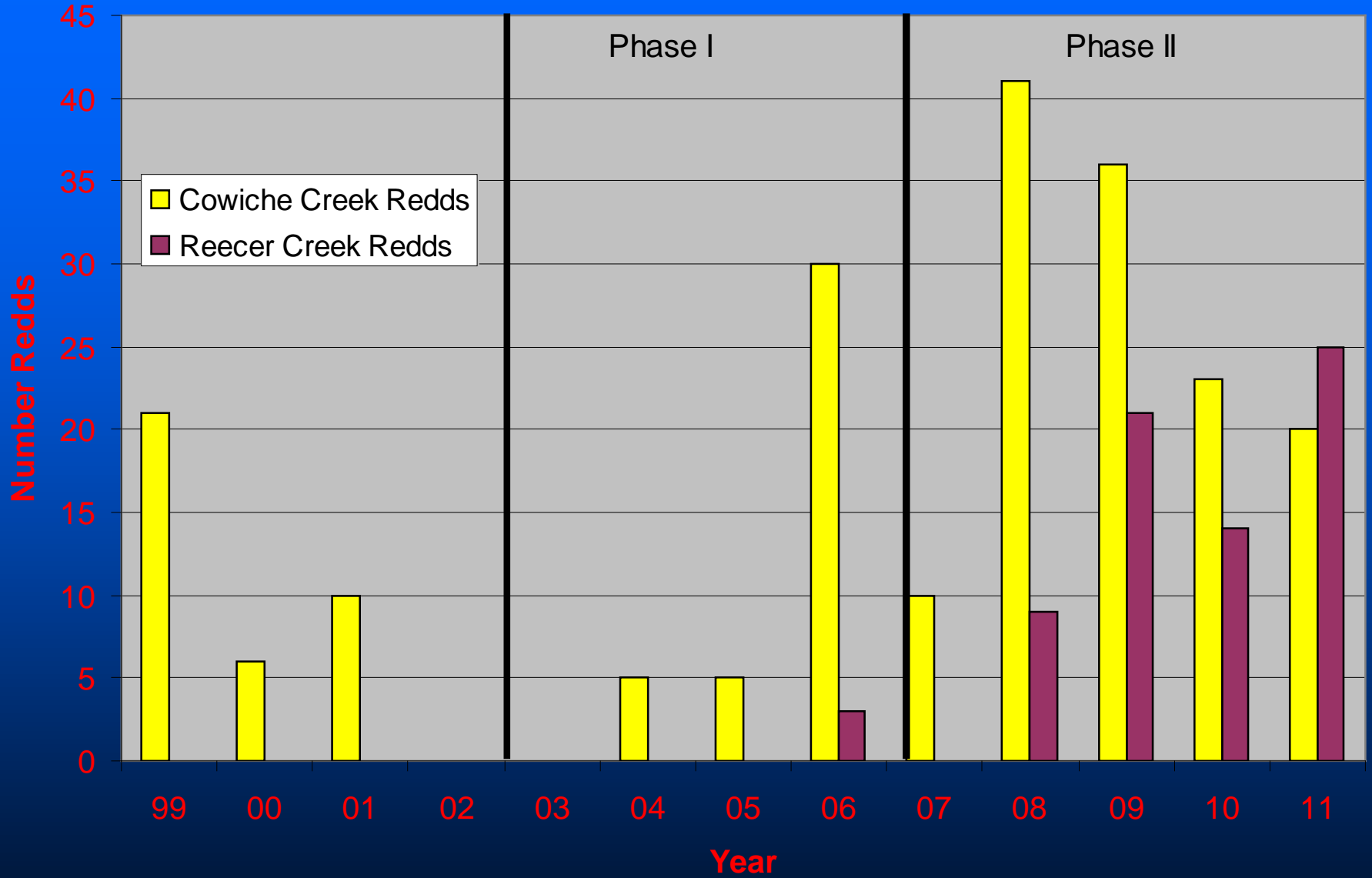




Yakima Basin Coho Salmon Redds





Cowiche/Reecer Creek Redd Counts



Adult Out Planting



 **FISHERIES**
YAKAMA NATION

 Washington
Department of
FISH AND
WILDLIFE

Study In Progress

Please Do Not Disturb!

This is a research site designed to evaluate the spawning success of coho salmon and the future interactions of their offspring with other resident fish species. This research is being conducted by the Yakama Nation Fisheries (YN) and the Washington Department of Fish and Wildlife (WDFW).

Please do not disturb racks, site, or fish.

NOTE: FISH HAVE BEEN TREATED WITH CHEMICALS AND ARE NOT EDIBLE!

Please direct questions to:
YN: 509-865-6262 Todd Newsome
WDFW: 509-925-4467 ext#4

30 10:11PM



Taneum Creek Coho Reintroduction

YN and WDFW cooperative Project

300 Adult Coho Out planted into 3, 400 meter sections (50 females 50 Males)
Coho are planted the last week of October and the first week of November in 3 consecutive days (100 per day)

- **2007**
 - 75 Redds Located
- **2008**
 - 50 Redds Located
 - 1300 Juvenile Coho Pit tagged
 - 16% survival to McNary Dam
- **2009**
 - 130 Redds Located
 - 1800 Juvenile Coho Pit tagged
 - 620 one year old smolts detected leaving Tanuem Creek
 - 9 Two year old smolts and 1 three year old smolt was also detected
 - 10% Survival to McNary Dam
- **2010**
 - 134 Redds Located
 - 4515 Juvenile Coho Pit tagged
- **2011**
 - 100 Redds Located
 - 1054 Juvenile Coho Pit tagged

Taneum Creek Adult Coho Salmon out-planting

Results

	Adult Females	Redds	Number of coho Pit Tagged	Migration Year	Survival to McNary Dam
2007	150	75	1300	2009	16%
2008	150	50	1812	2010	10%
2009	150	130	4515	2011	13%
2010	150	134	1054	2012	16%
2011	150	100	-	2013	-



Taneum Creek Adult Returns 2011

- Bonneville- 19
- McNary- 14
- Prosser- 12
- Roza- 9
- Taneum Creek- 2
- McNary to McNary Smolt to Adult return
7.5%



Local In Basin Brood Development

- 651 YN Hatchery Females Spawned
- ~800 YN Hatchery Males Spawned
- Estimated egg take of ~1,970,000
- 523,064 YN Eyed eggs sent to Eagle Creek National Fish Hatchery for rearing
- 20,000 YN Eyed eggs to LaSalle Hatchery