



Yakima River Summer/Fall Chinook Program 2013-14

by Melinda Davis

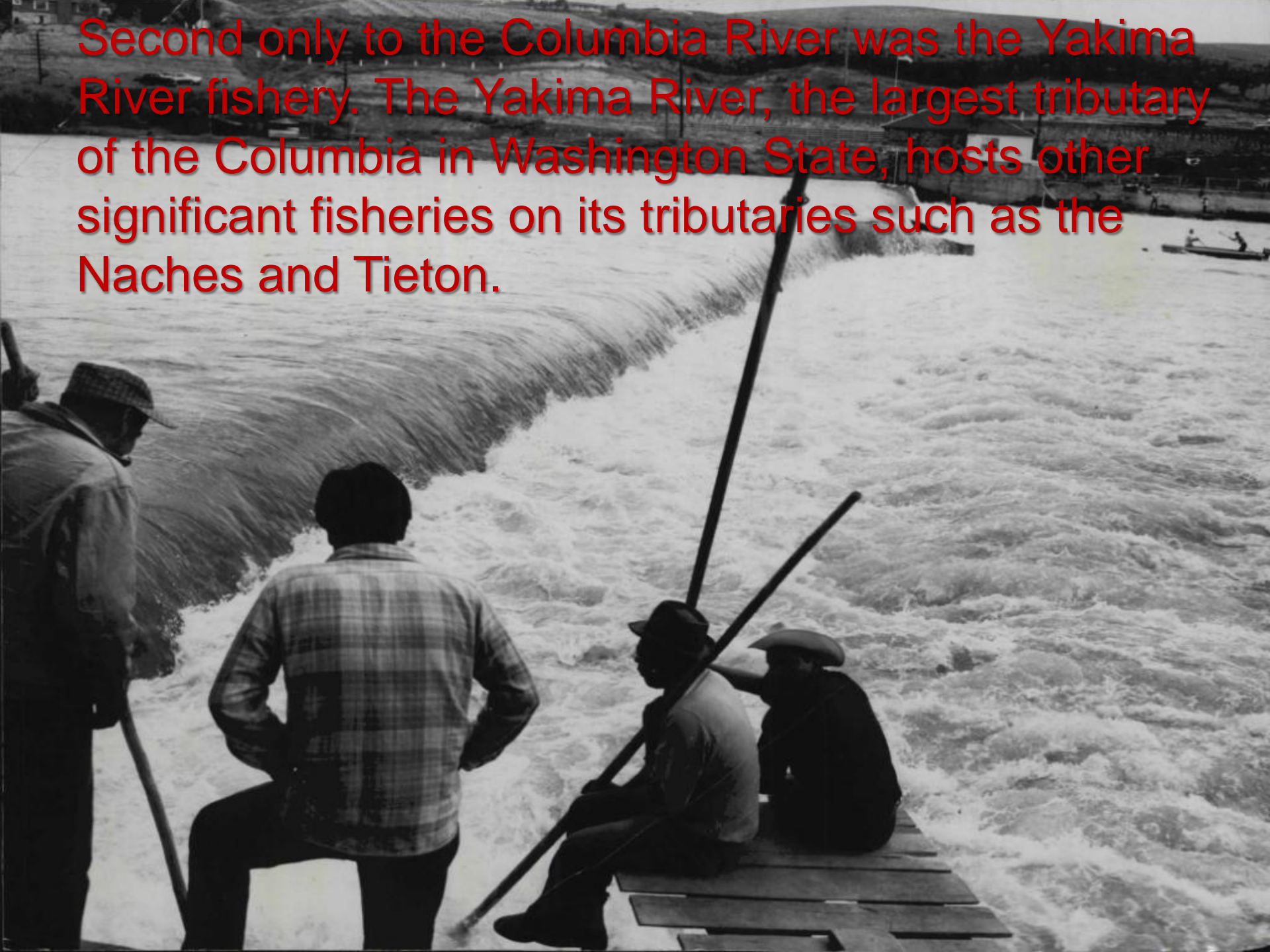
Yakima Klickitat Fisheries Project (YKFP)

YAKAMA NATION

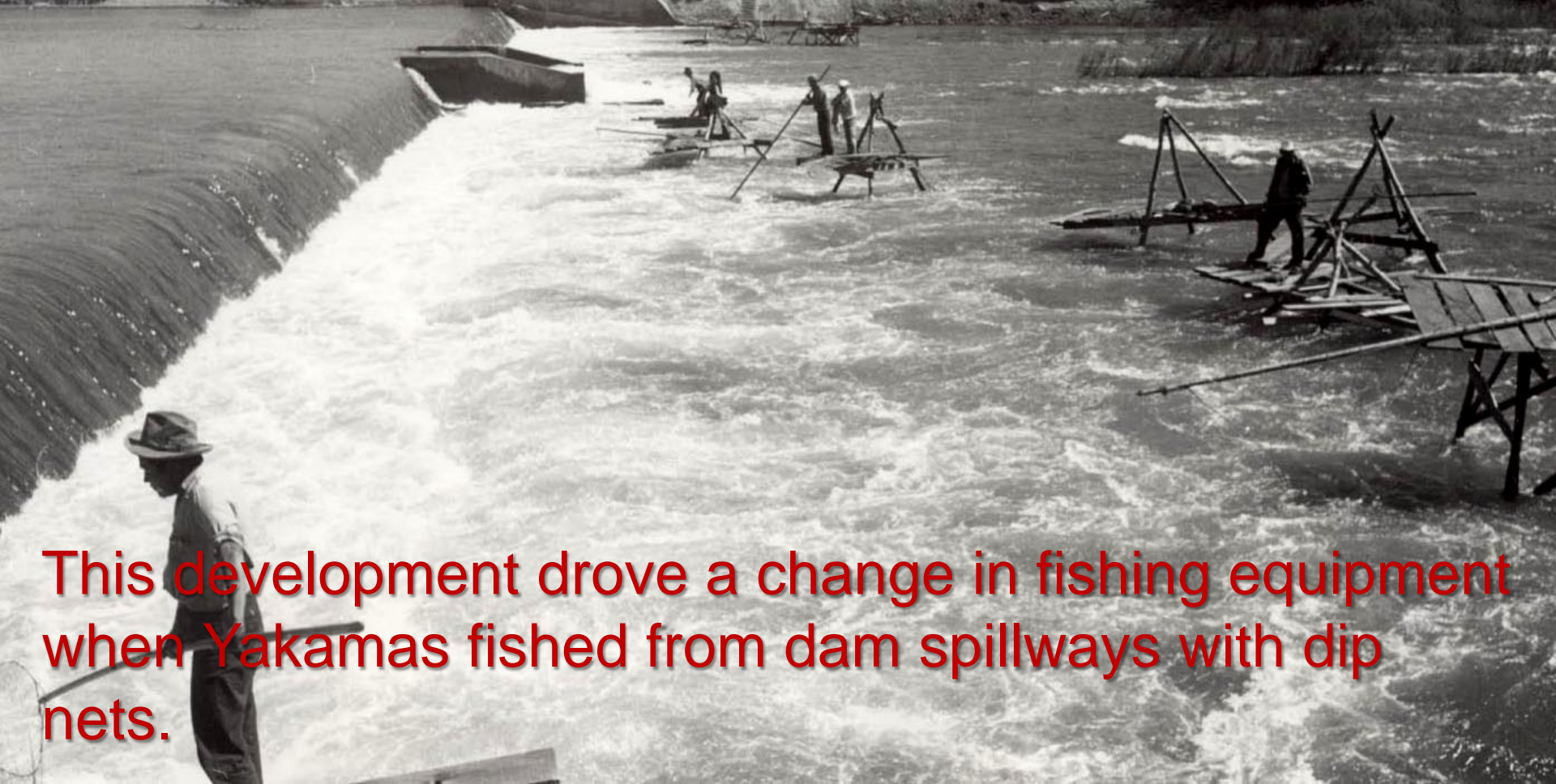


INDIAN DAYS—Tepees were frequent along Yakima River at The Gap. Mrs. Ray D. Cook collection

Second only to the Columbia River was the Yakima River fishery. The Yakima River, the largest tributary of the Columbia in Washington State, hosts other significant fisheries on its tributaries such as the Naches and Tieton.

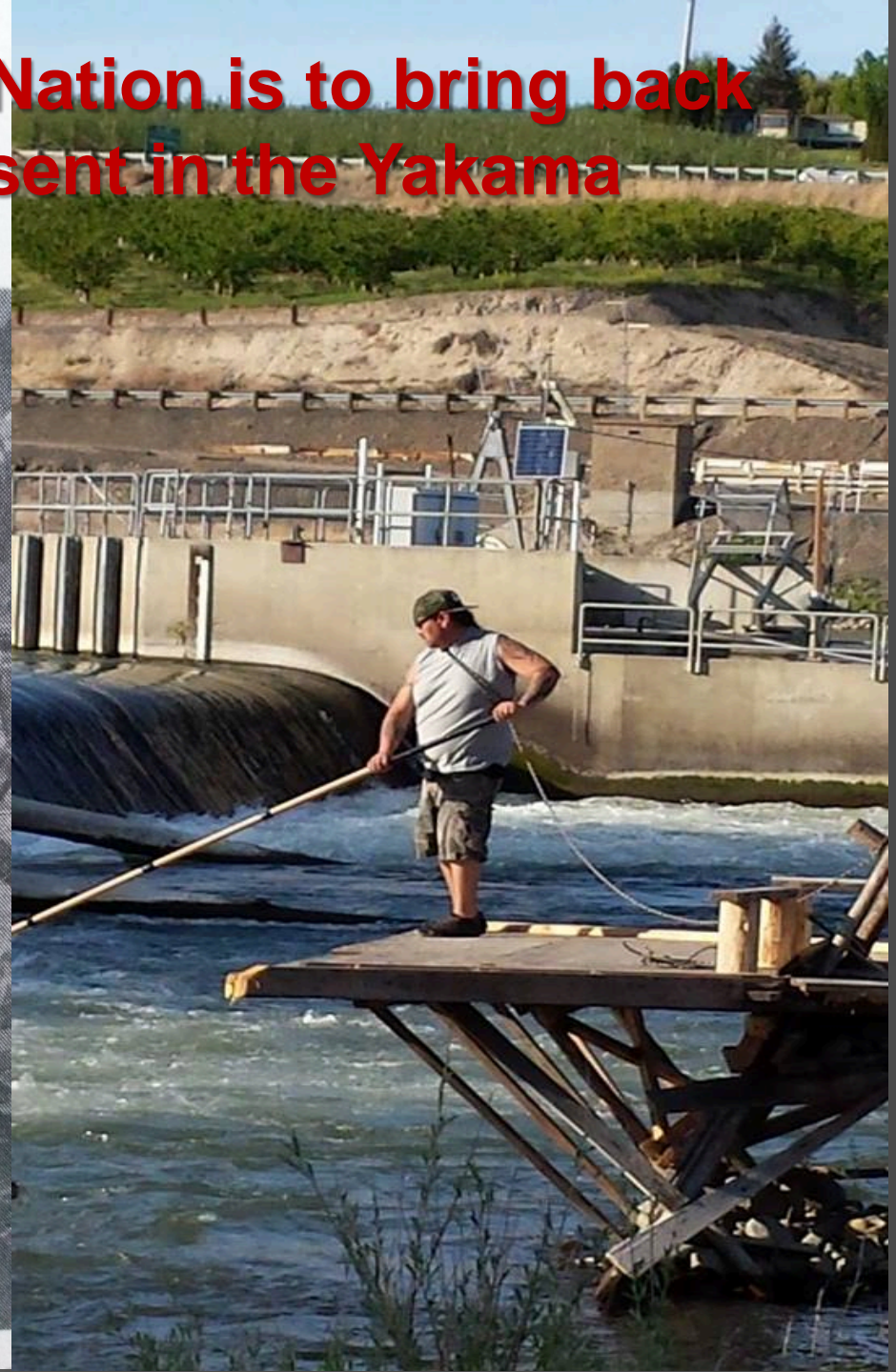


Before diversion dams for irrigation were created, Yakamas used traps, weirs, and slip point spears (which had removable barbed points) to catch fish at about one hundred different locations.



This development drove a change in fishing equipment when Yakamas fished from dam spillways with dip nets.

The vision of the Yakama Nation is to bring back all species previously present in the Yakama Basin.



Yakima River Fall Chinook Historical

- Historically ~132,000 adults returned to spawn.
- Summer Chinook *extirpated* early 1970s.
Reintroduction effort began in 2008.
- Early 80s adult returns went low as 600 adults
- Mid-80s were averaging 2-3,000 adult returns
- Restoration *through acclimation* began in 1994.
- Currently average about 3,084 since
supplementation releases began in 1999.

Goals

Conservation: 1) increase population viability (abundance, diversity and spatial distribution) by moving to a locally adapted fall Chinook brood stock and by re-establishing a summer run component, and

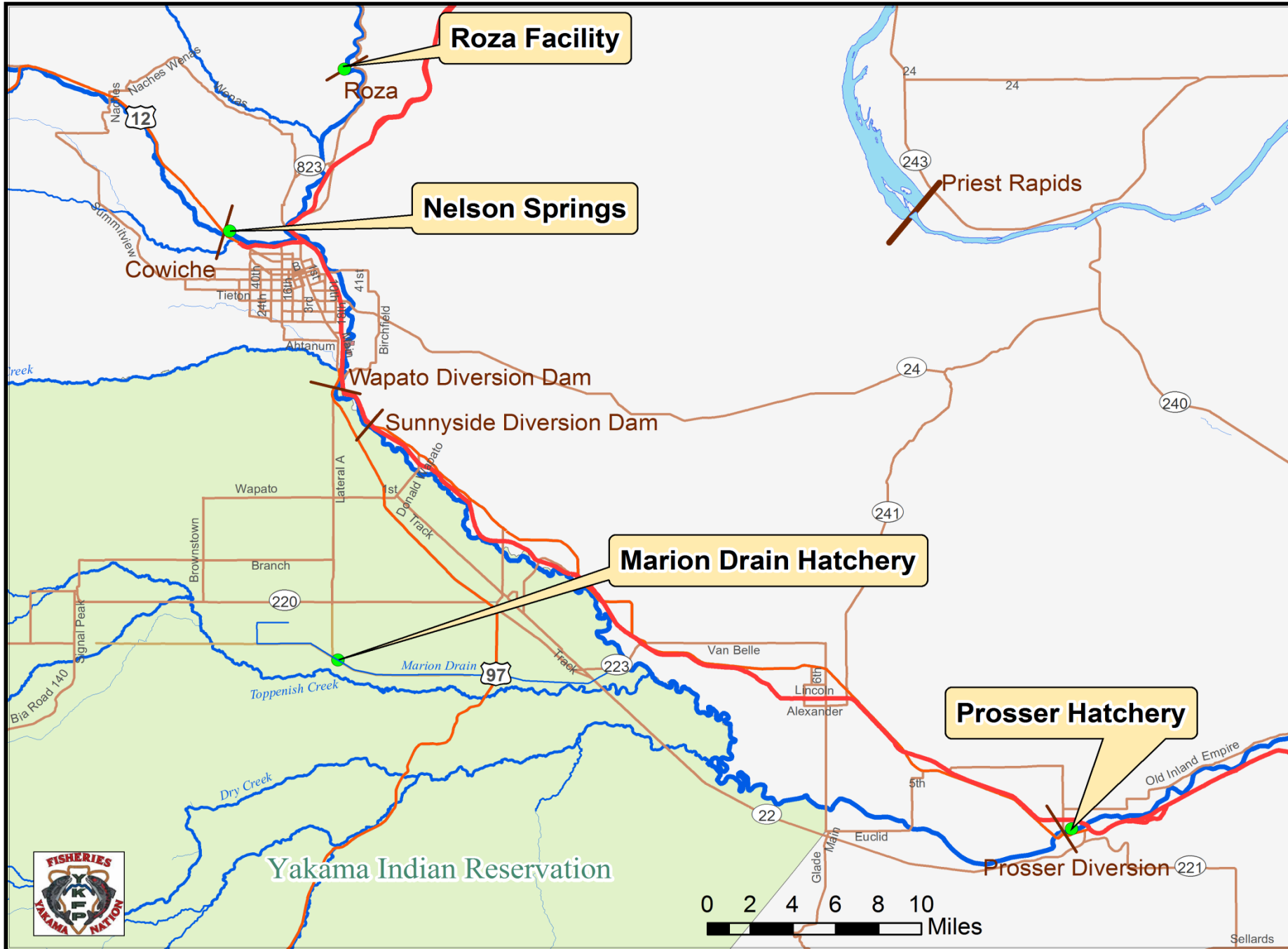
2) ensure that population size remains large enough to allow the population to maintain itself



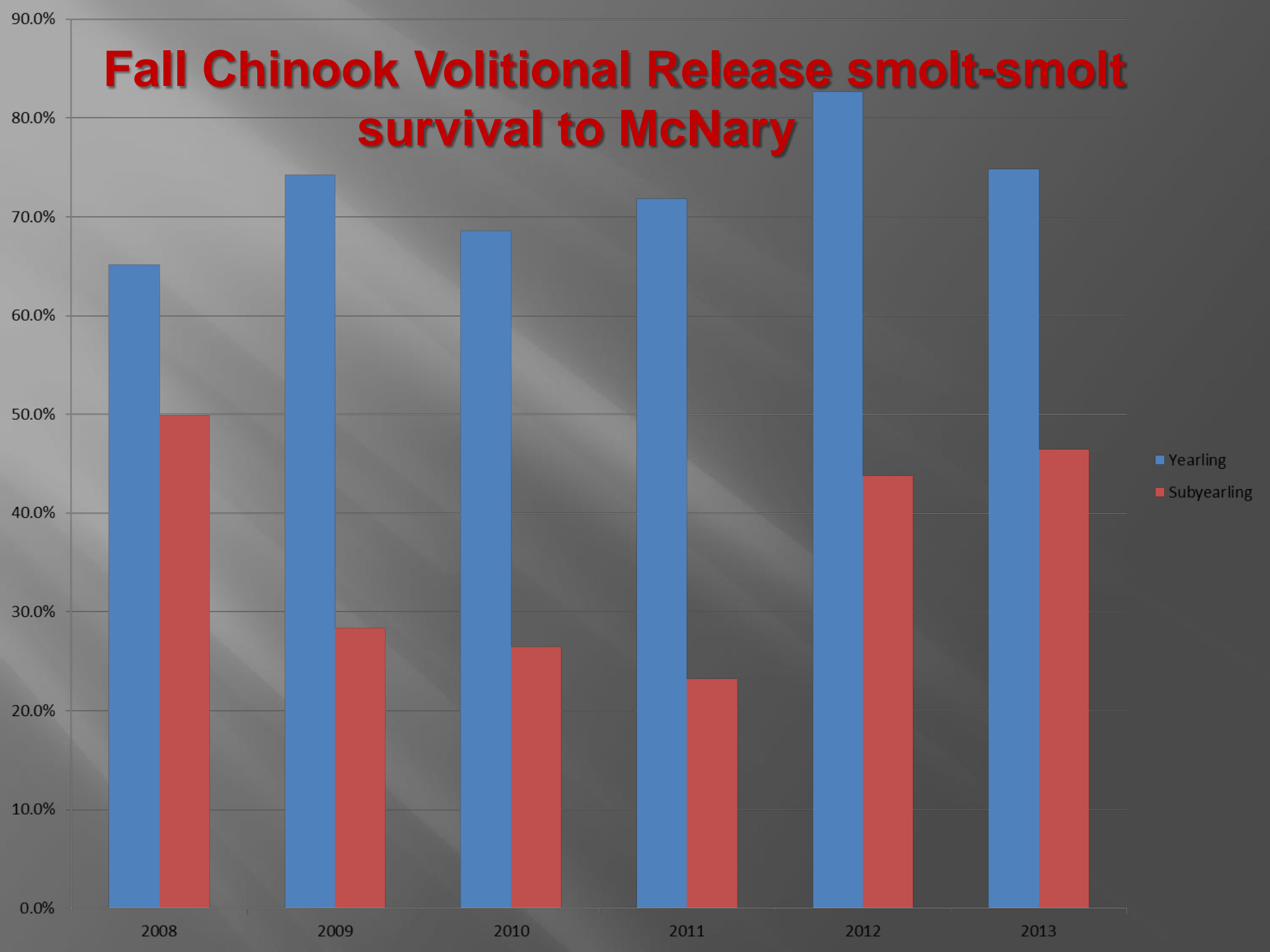
Yakima River Releases 2000-13

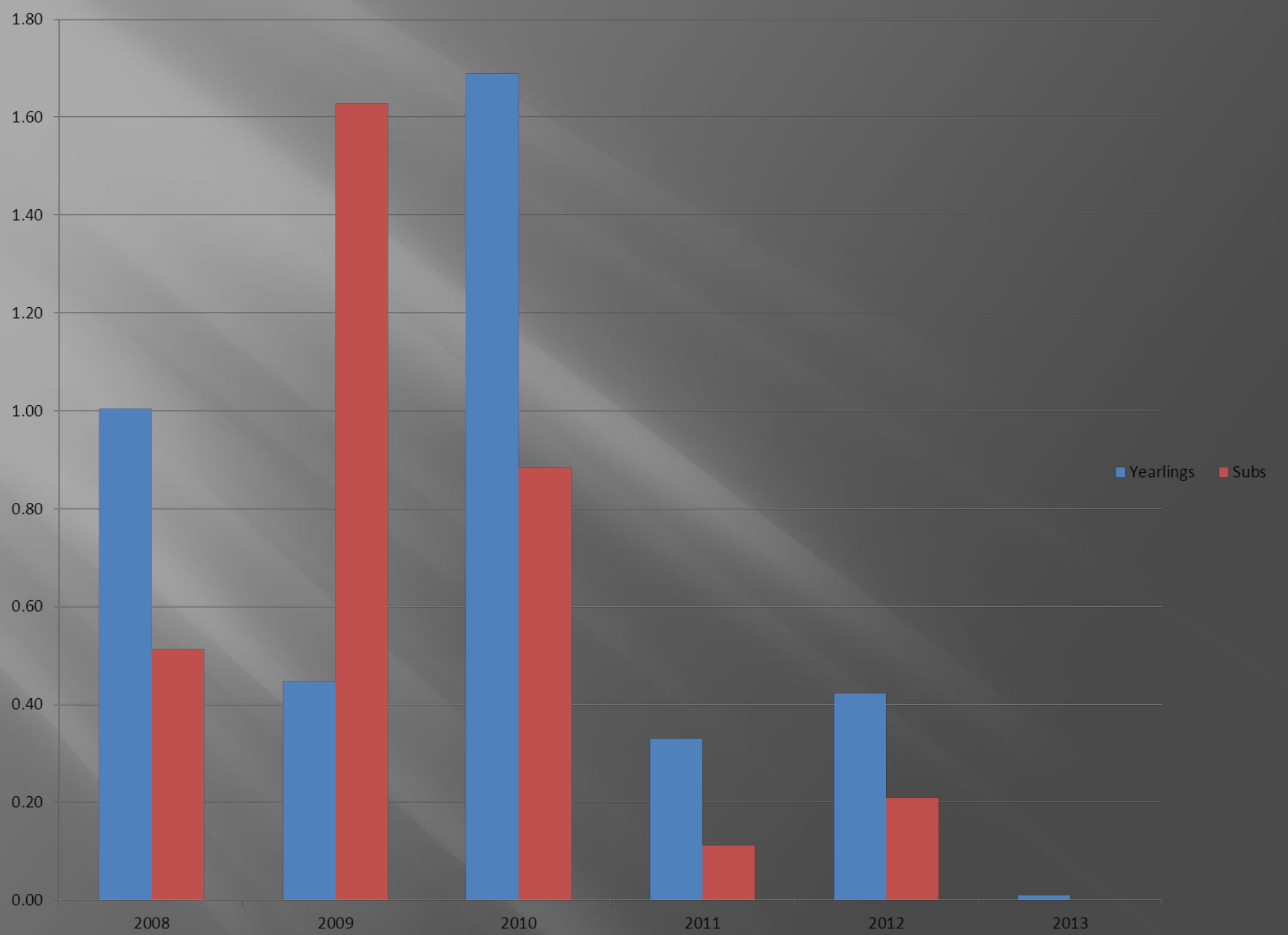
Fall Chinook RELEASE SUMMARY

Released	LWH	PRH	PROsub	PROyear	Marion	Billys	StiSubs	Skov	TOTAL
2000	1,695,037		306,000		16,000				2,017,037
2001	1,699,136		427,753		12,000				2,138,889
2002	1,704,348		286,158		4,000				1,994,506
2003	1,771,129		365,409		18,000				2,154,538
2004	1,748,200		561,385		52,223				2,361,808
2005	1,700,000		466,000		41,000	75,000	38,890		2,320,890
2006	1,683,664		130,002		2,000		118,835		1,934,501
2007	1,700,000		50,000		15,731	5,000	75,000		1,845,731
2008	789,993		514,069	1,833	5,253	11,308	72,296	5,417	1,400,169
2009	1,647,275		299,574	7,516	24,245				1,978,610
2010	1,680,045		290,282	12,167	22,945				2,005,439
2011	1,699,944	503,772	620,952	22,857					2,847,525
2012	1,200,000	405,000	269,633	19,432	72,258				1,966,323
2013	1,506,725		184,949	22,735					1,714,409
2014	1,542,702	379,970	445,347						2,368,019

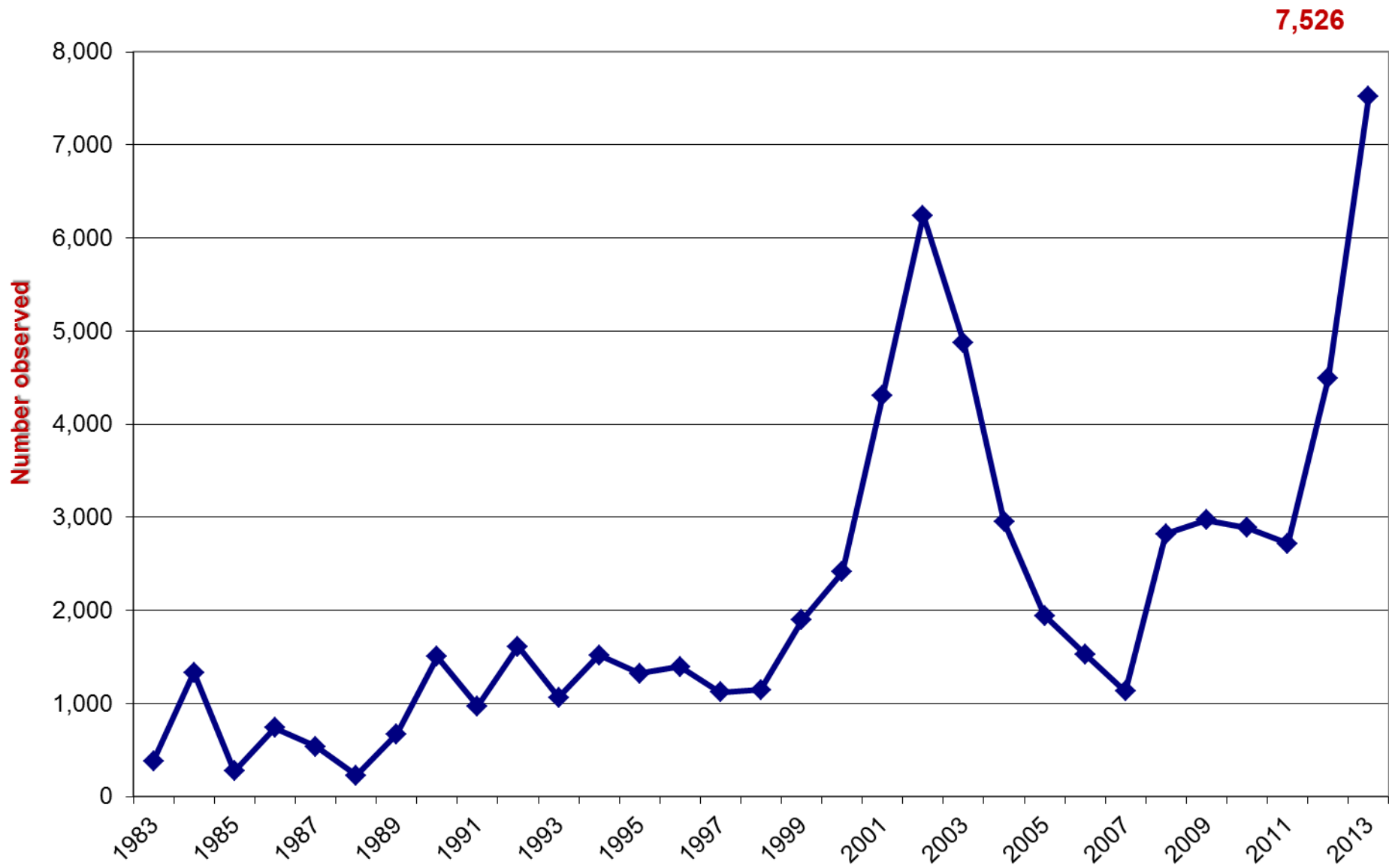


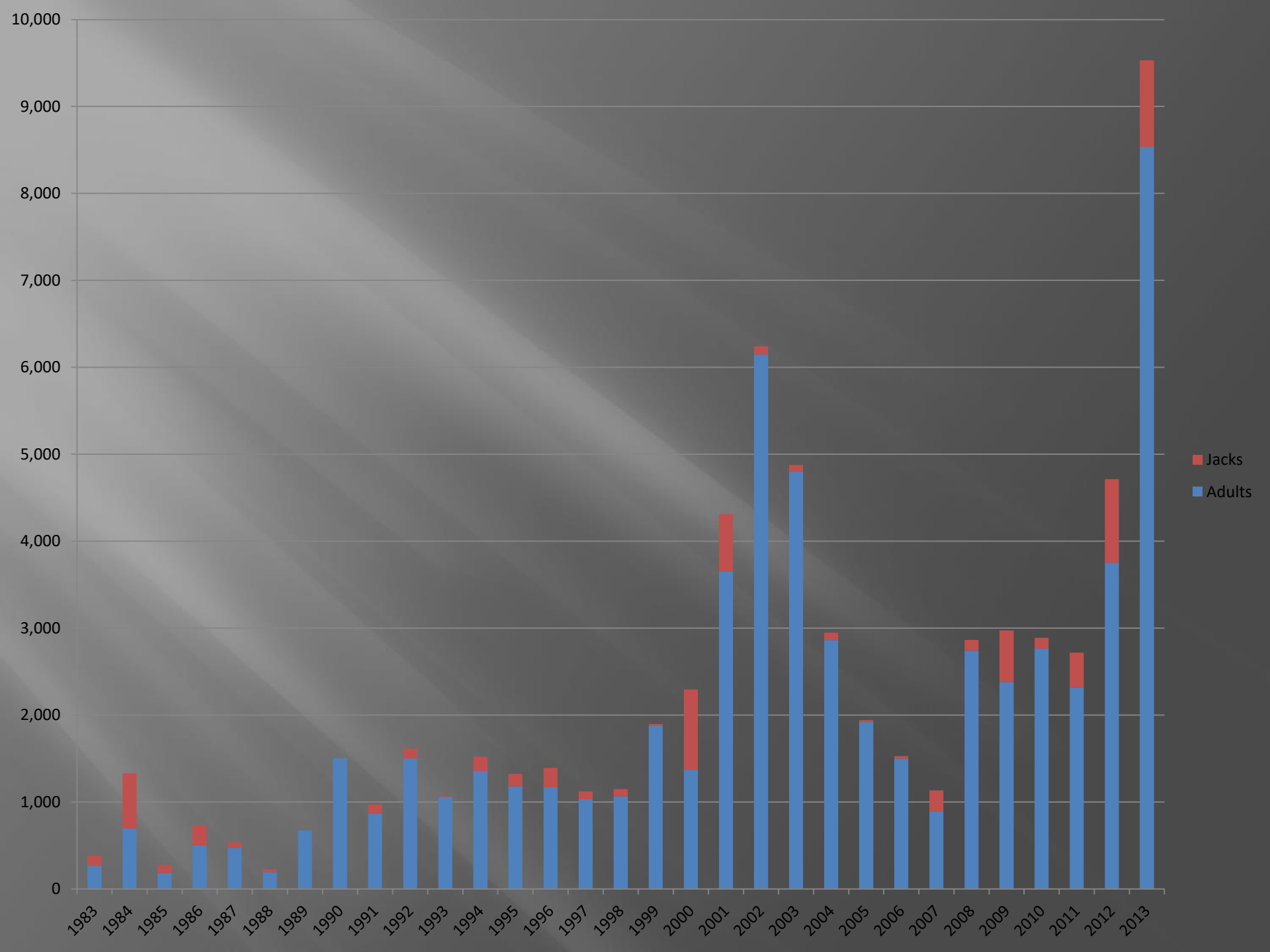
Fall Chinook Volitional Release smolt-smolt survival to McNary





Fall Chinook Adult Passage above Prosser Dam





2013 Redd Surveys above Prosser

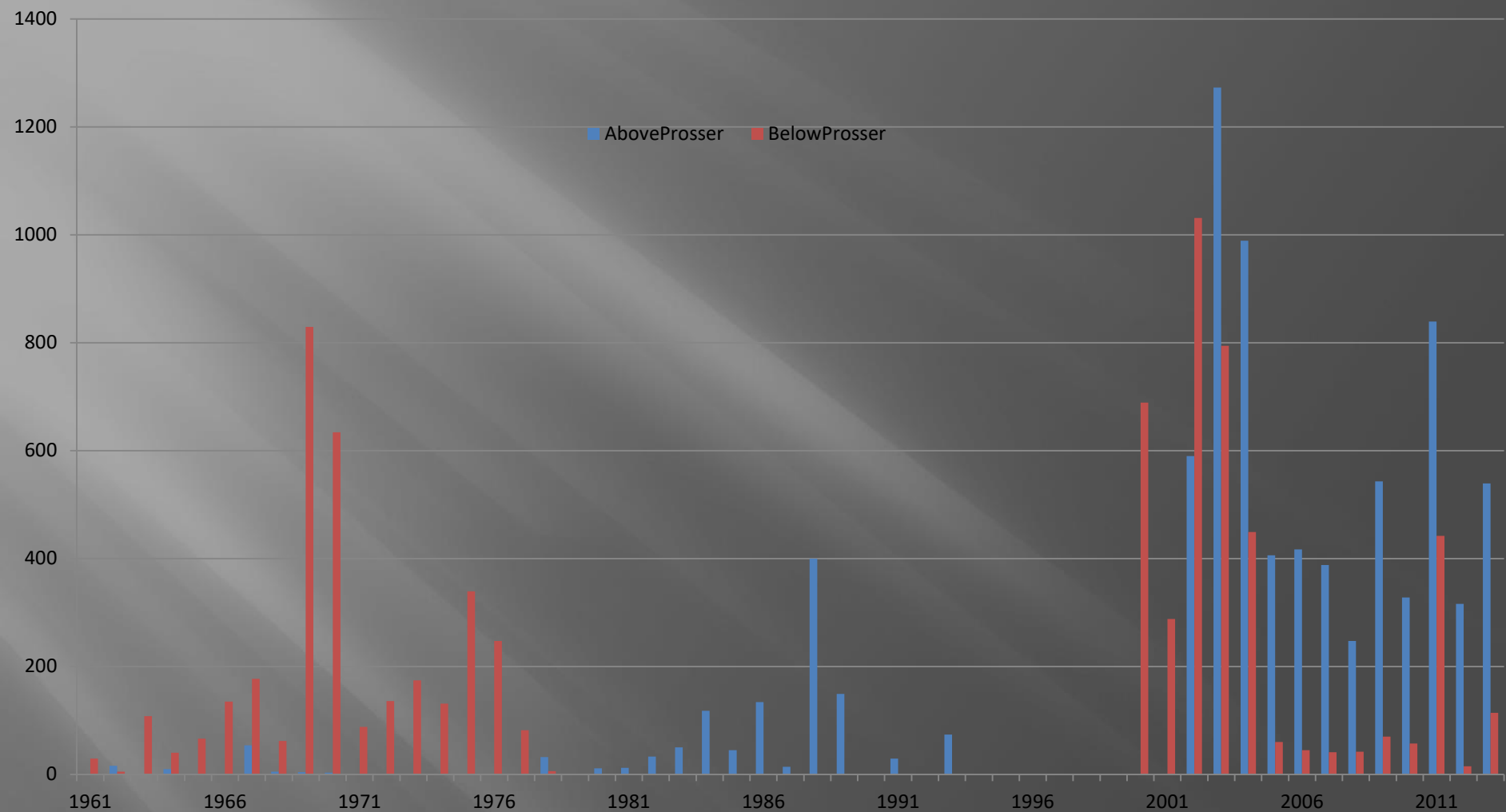
7,526 Adults over Prosser Dam

Yakima River- 465 Redds

Naches River- 0 Redds

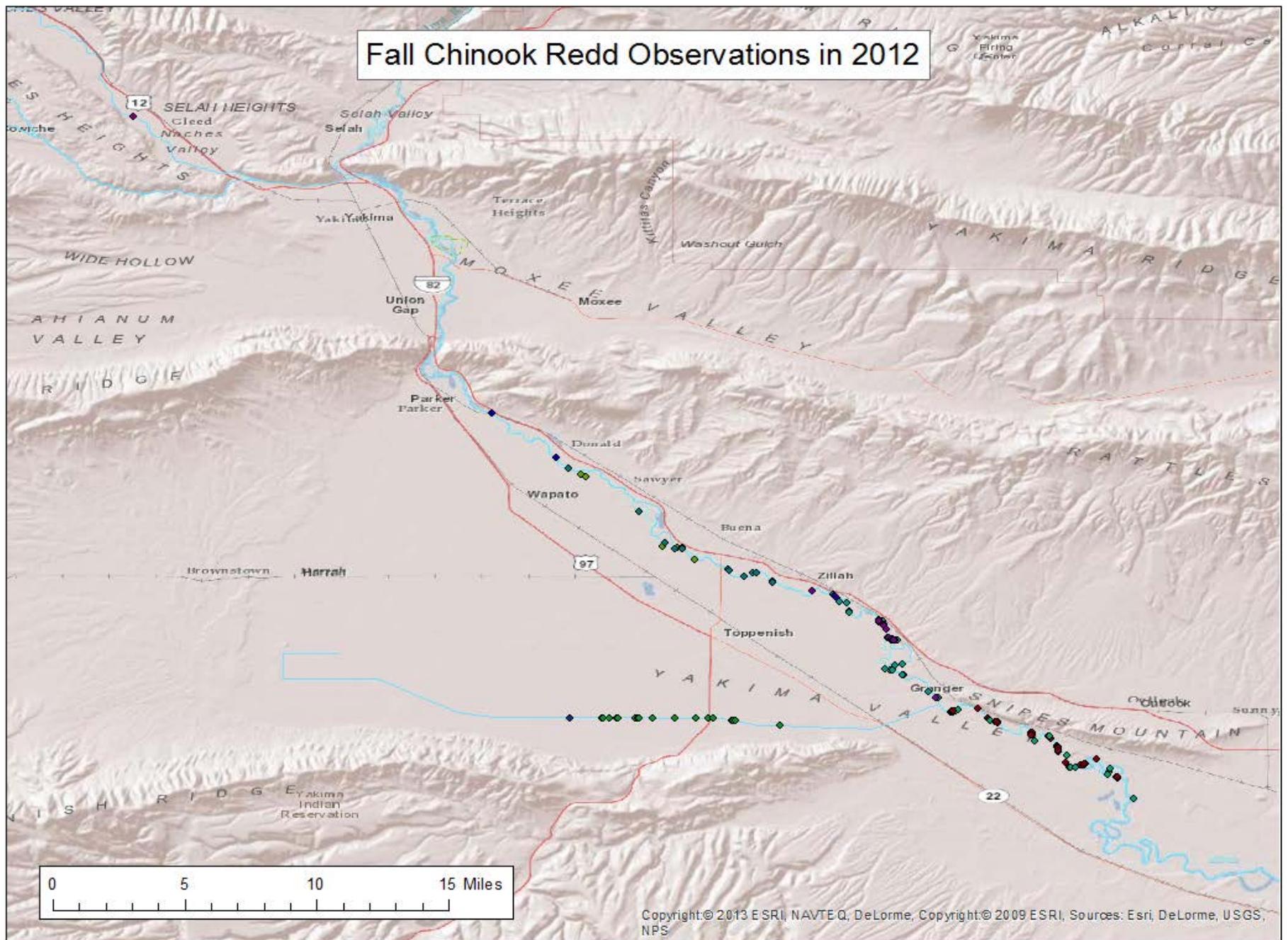


Yakima River Redds above AND below Prosser

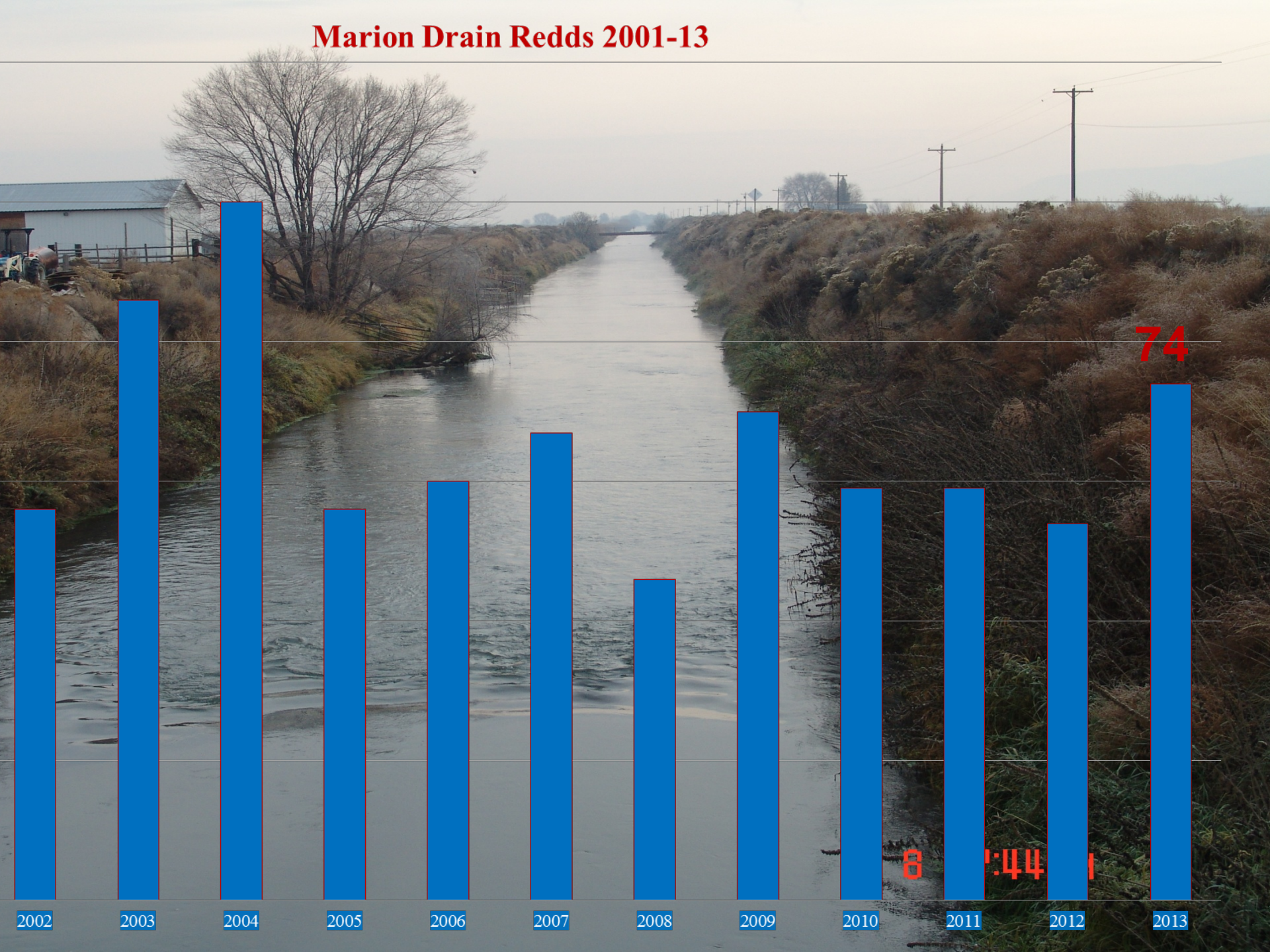


Fall Chinook redd counts above and below Prosser Dam, 1961-present, for years in which surveys were conducted and data are available. Data from YN, WDFW, and Pacific Northwest National Laboratory files; survey data are partial or incomplete for most years prior to 2000. (YKFP 2014 Report, Sampson, M.R., D.E. Fast, and W.J. Bosch)

Fall Chinook Redd Observations in 2012



Marion Drain Redds 2001-13



2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

8

44

1

74

Re-Establishing Summer Chinook in the Yakima River

- **Objective:** To initiate investigation of the feasibility of establishing an early-run fall Chinook population in the Yakima River, with the goals being to:
 - Develop a naturally spawning adult population in the Yakima River between Sunnyside Dam and Roza Dam, and in the lower Naches River from the mouth to the Tieton River, and,
 - Increase the number of natural-origin returning summer-run adults in the lower Columbia, Zone 6, and the lower Yakima River contributing to harvest augmentation for both the tribal and sports fishery.



Noooooo!

The Yakima River said “Good-Bye” to the last of Summer Chinook in the 1970s...

WDFW Wells Hatchery



YN Marion Drain Hatchery



Collected initial Brood from WDFW Wells
Hatchery in 2008 and released 180,000
Summers into system 180,911.

So Is it Feasible?

Will adults find their way back to the
Yakima?



Yes!



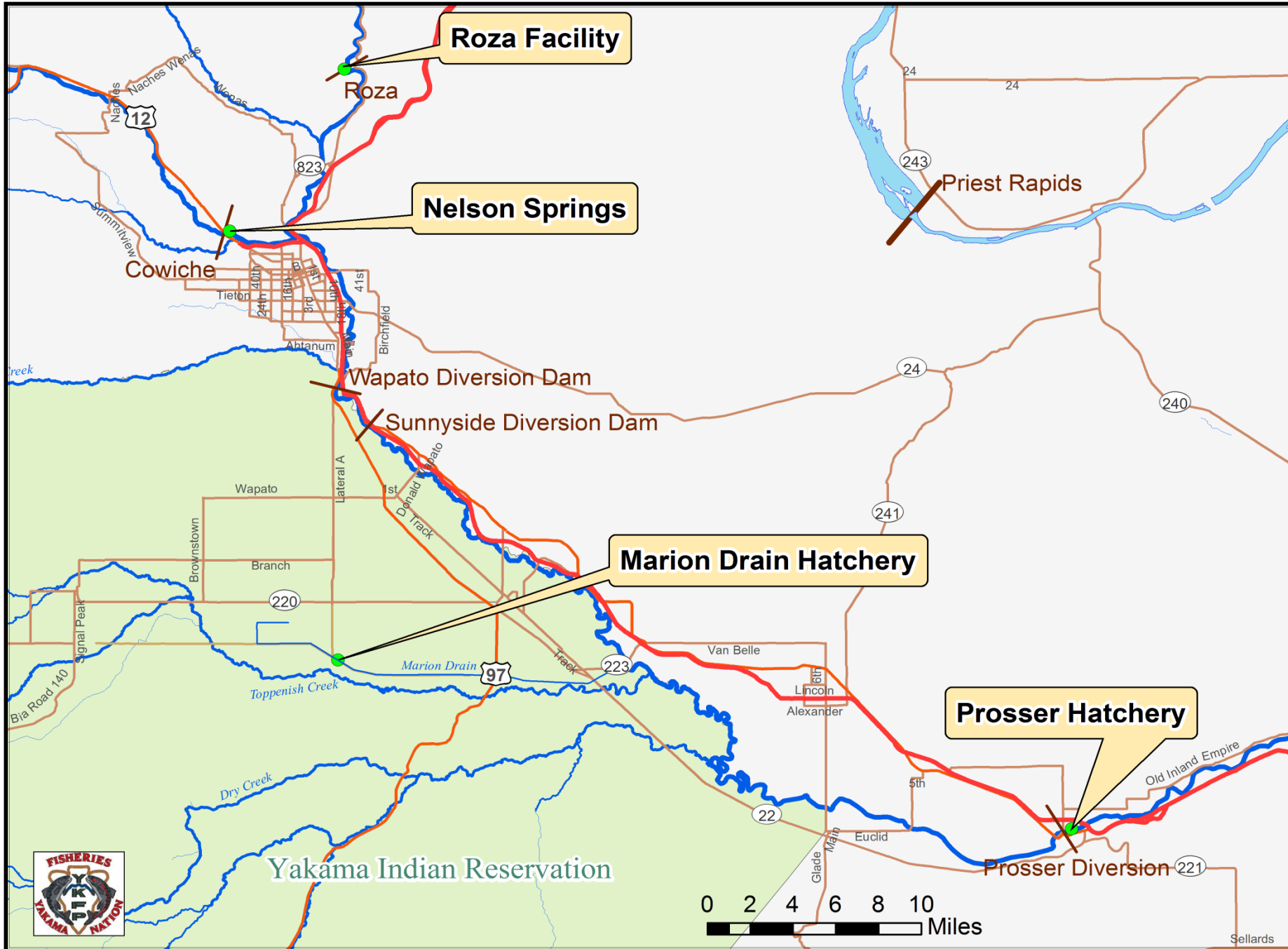
*We're
Back!*

**AND "Hello!" to the FIRST to return over
Prosser on 7/16/11.**

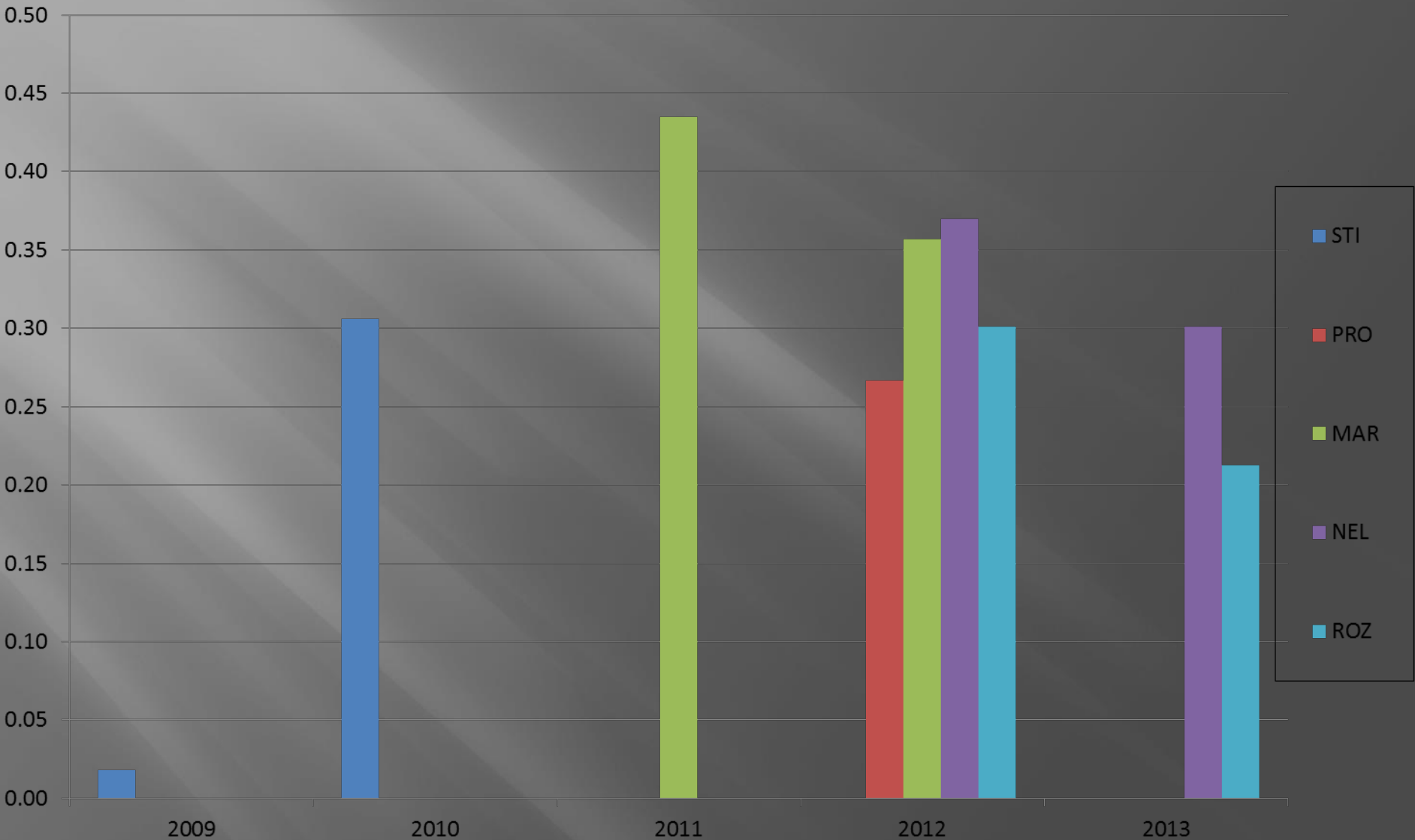
*BY2008 Stiles release observed
at Prosser 7/16/11*

MOTION: POST-ALARM

C03 2011/07/16-04:17:18



SmoltToSmolt SI to McNary 2009-13



2013 Redd Surveys above Prosser

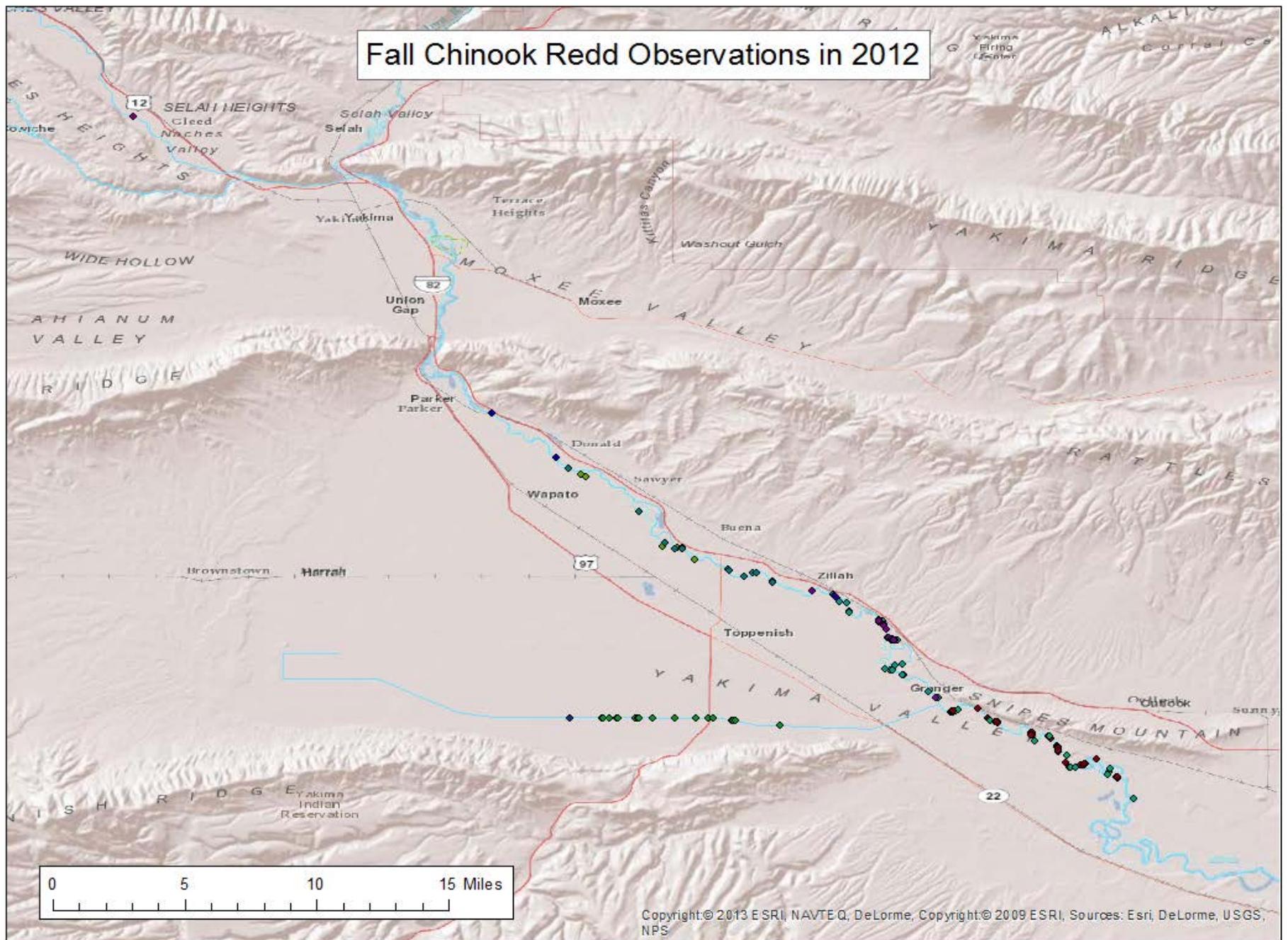
1,800 Adults over Prosser Dam



Yakima River- 24 Redds

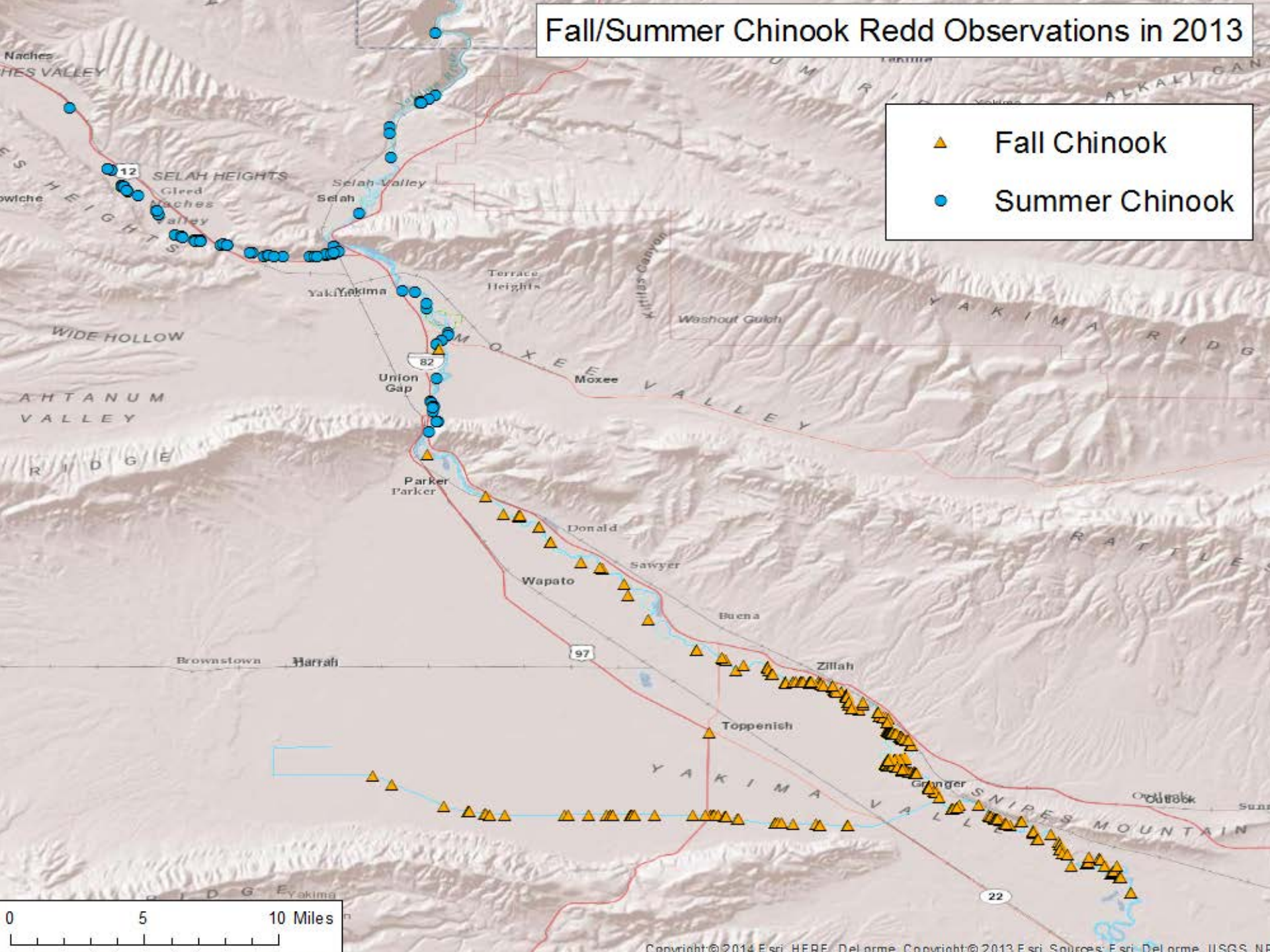
Naches River- 61 Redds

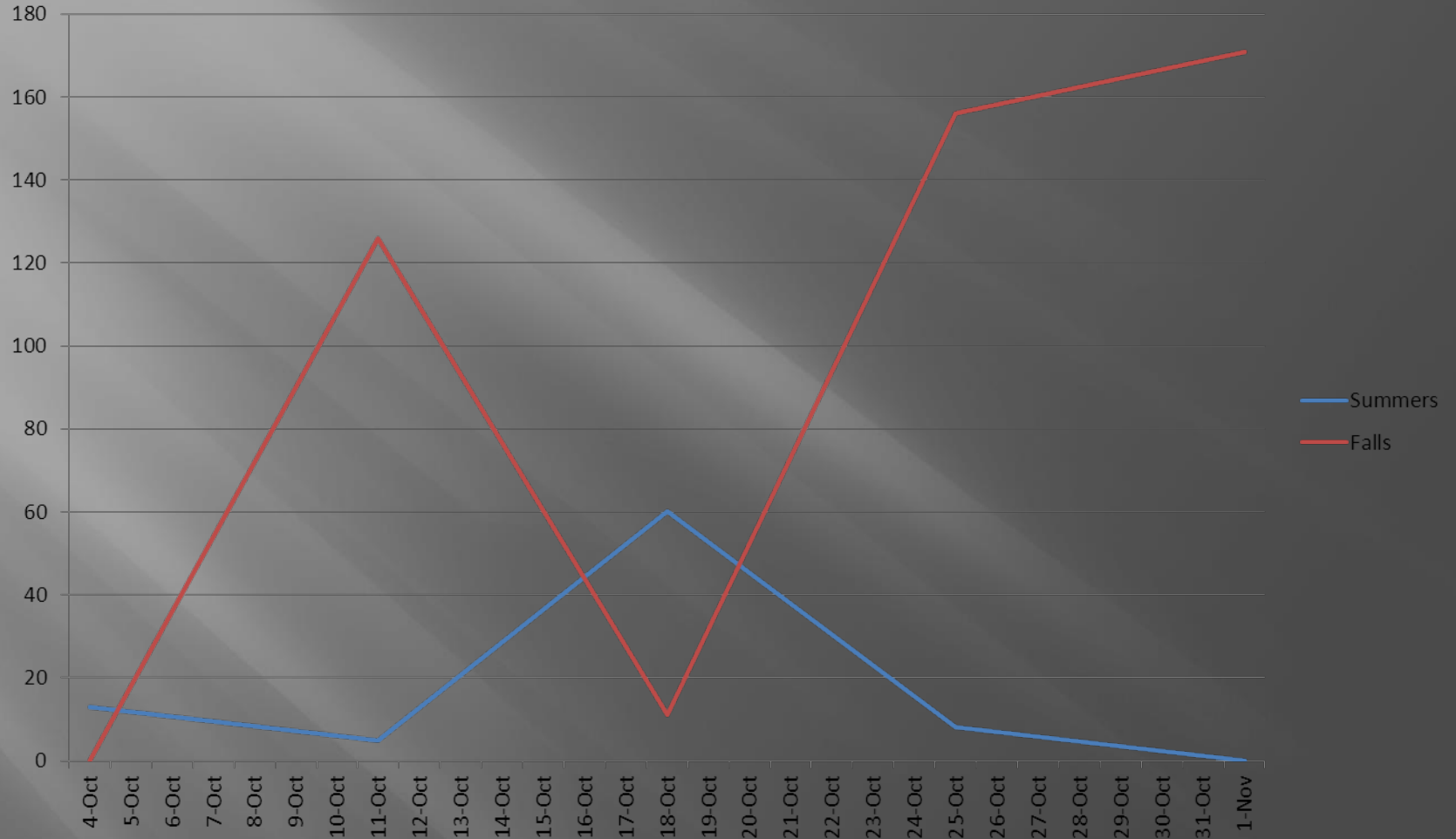
Fall Chinook Redd Observations in 2012



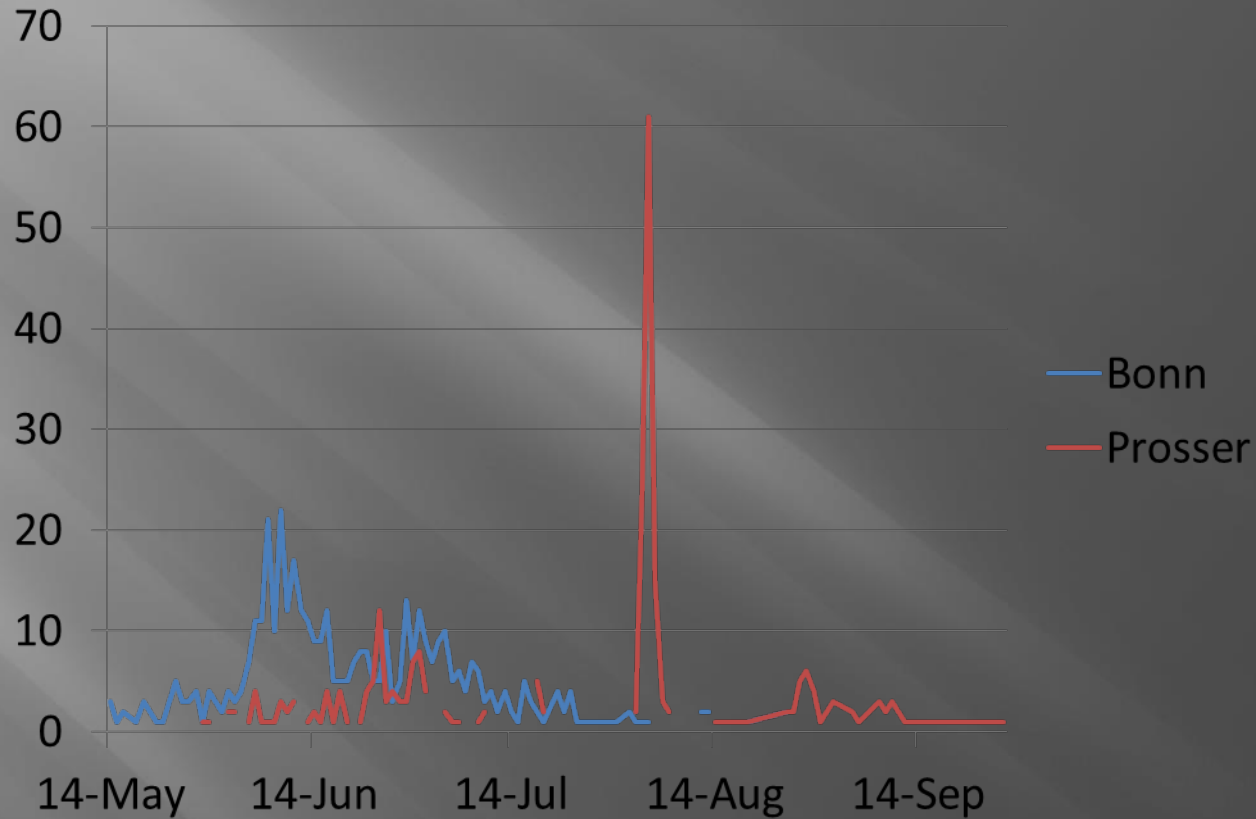
Fall/Summer Chinook Redd Observations in 2013

- ▲ Fall Chinook
- Summer Chinook

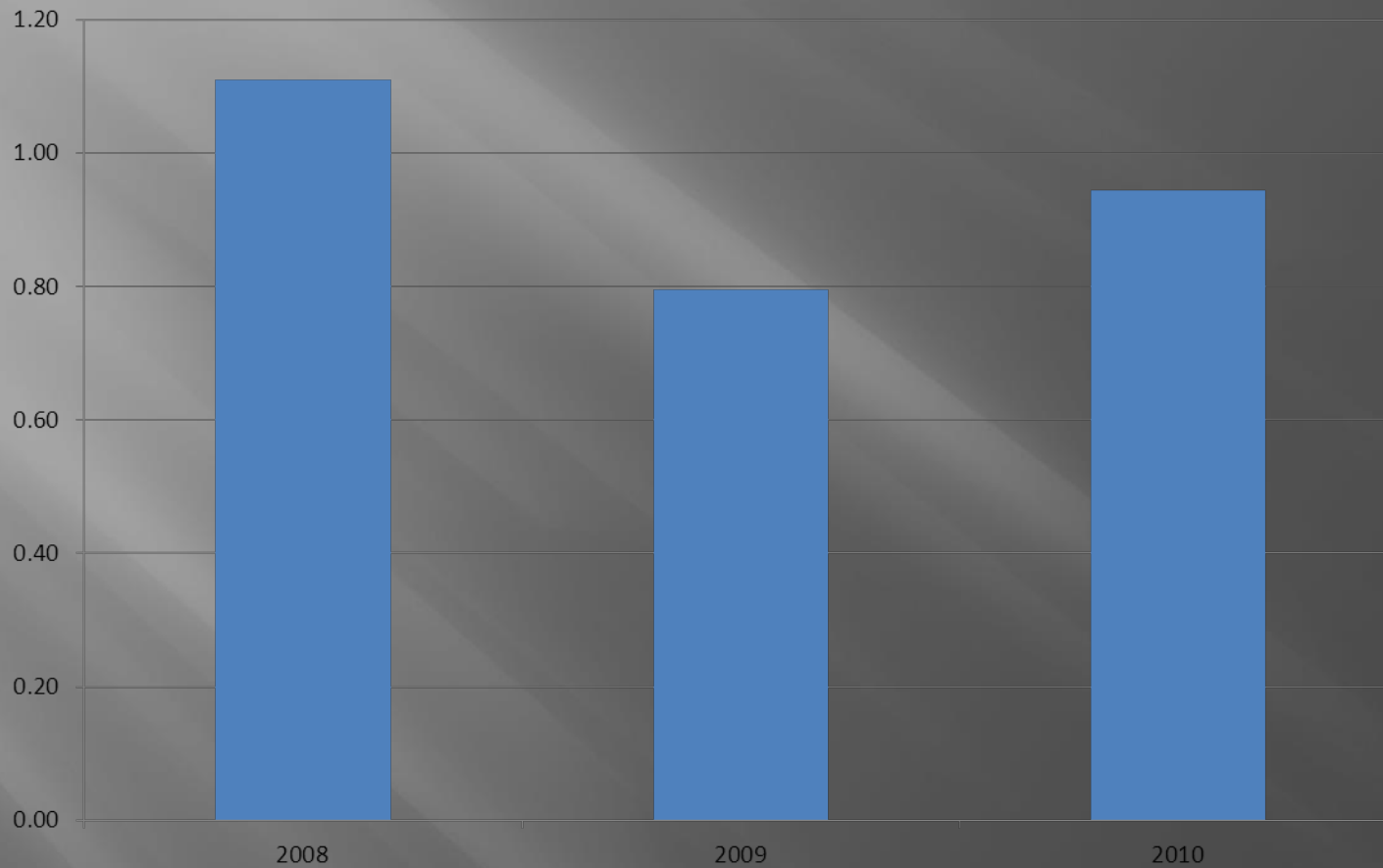




Summer Chinook PIT-Based Run Timing at Bonneville and Prosser Dams

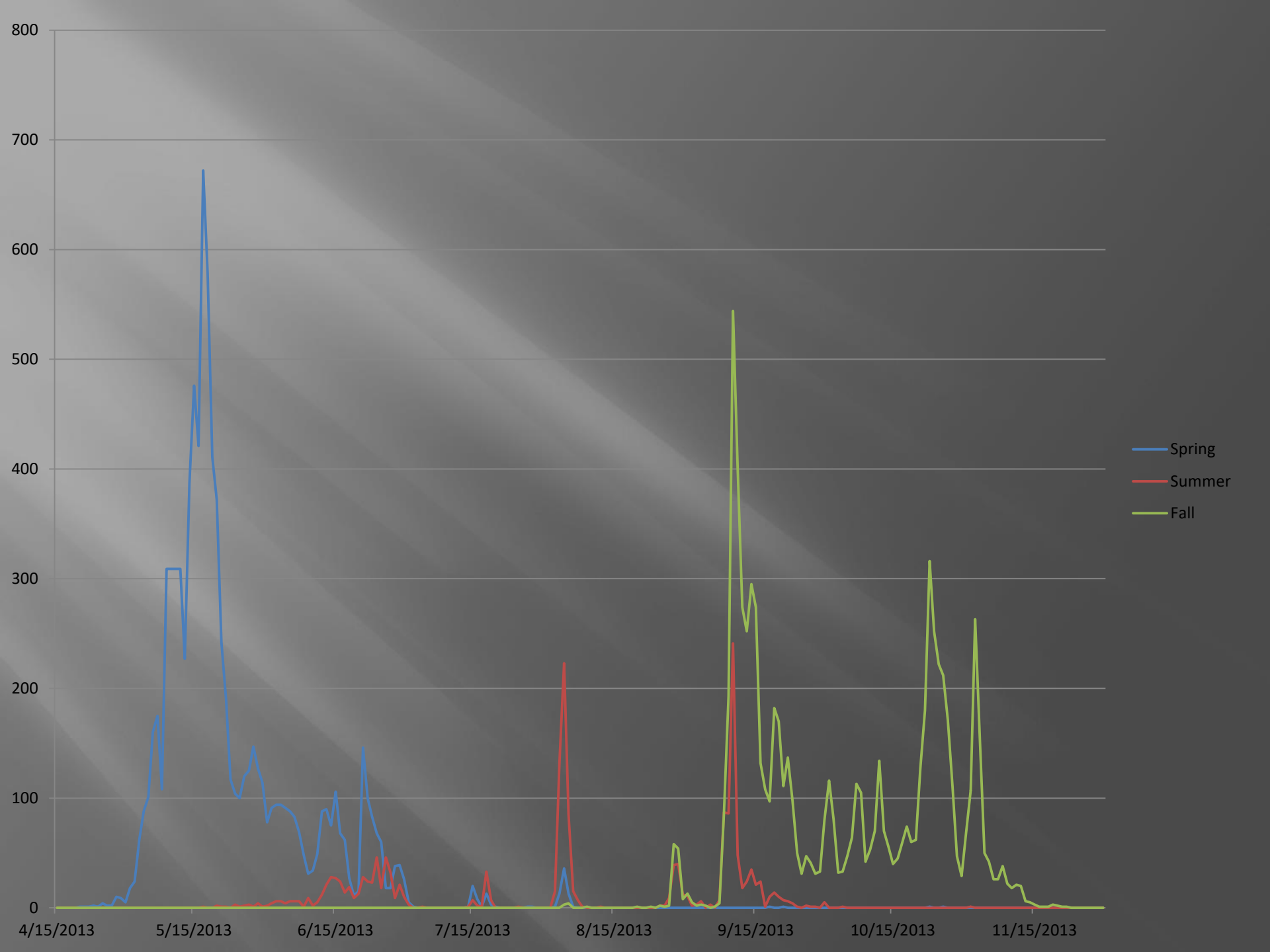


Summer Chinook BY2008-2010 adult SI to McNary

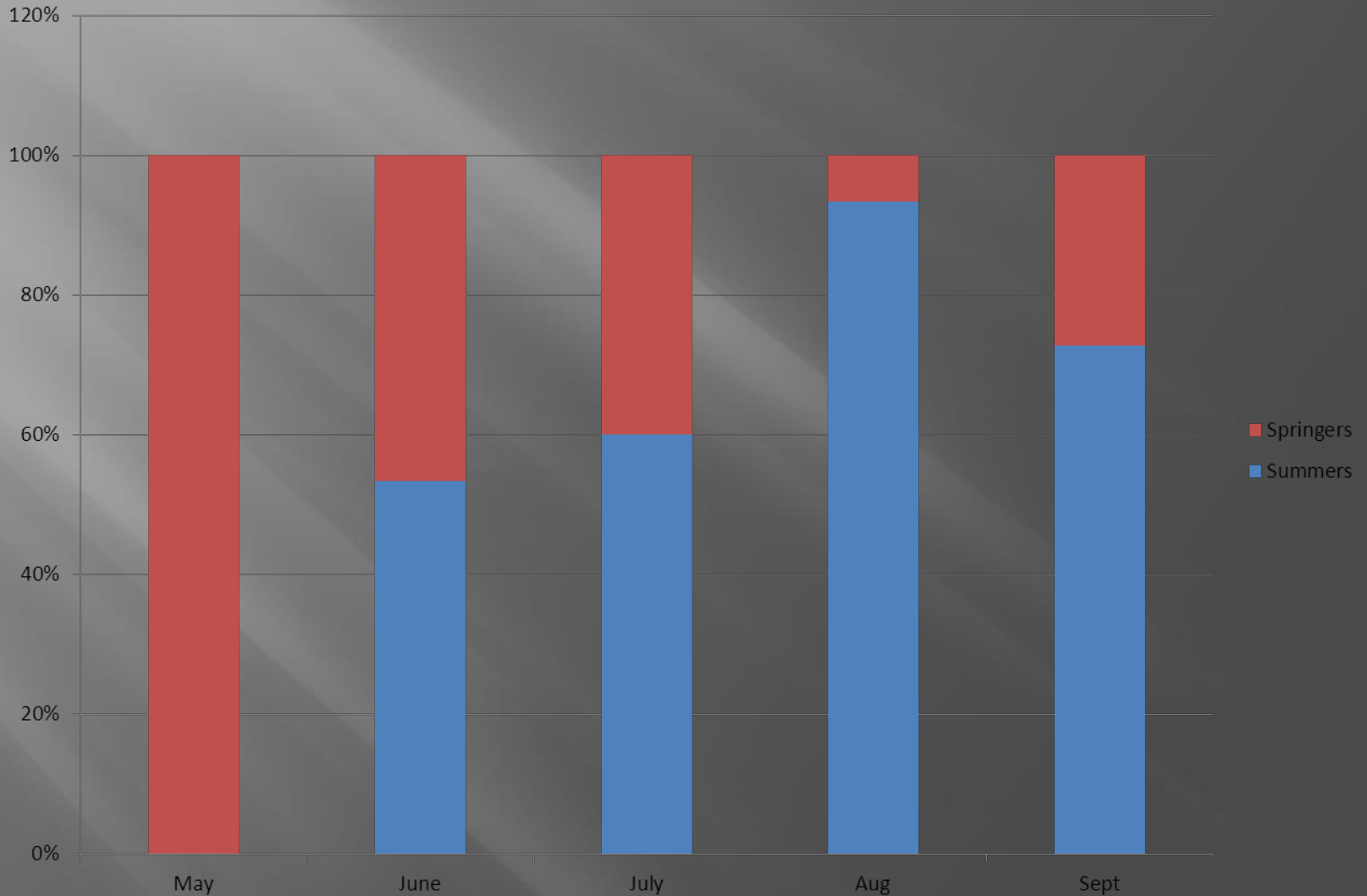


Based on PIT tags through 2013

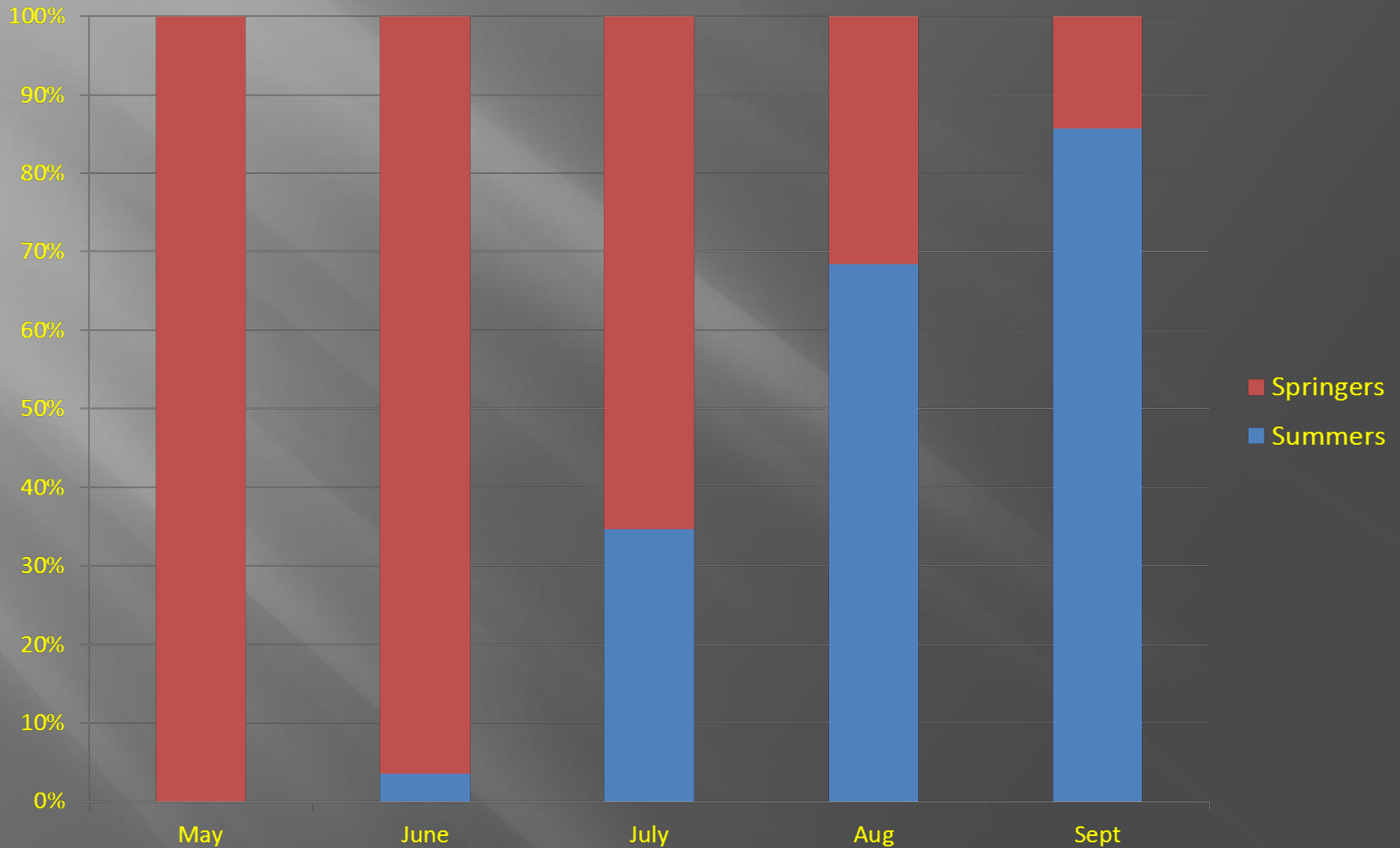
BY2009 and BY2010
incomplete



Timing: Spring vs Summer 2013



Timing: Spring vs Summer 2011-12





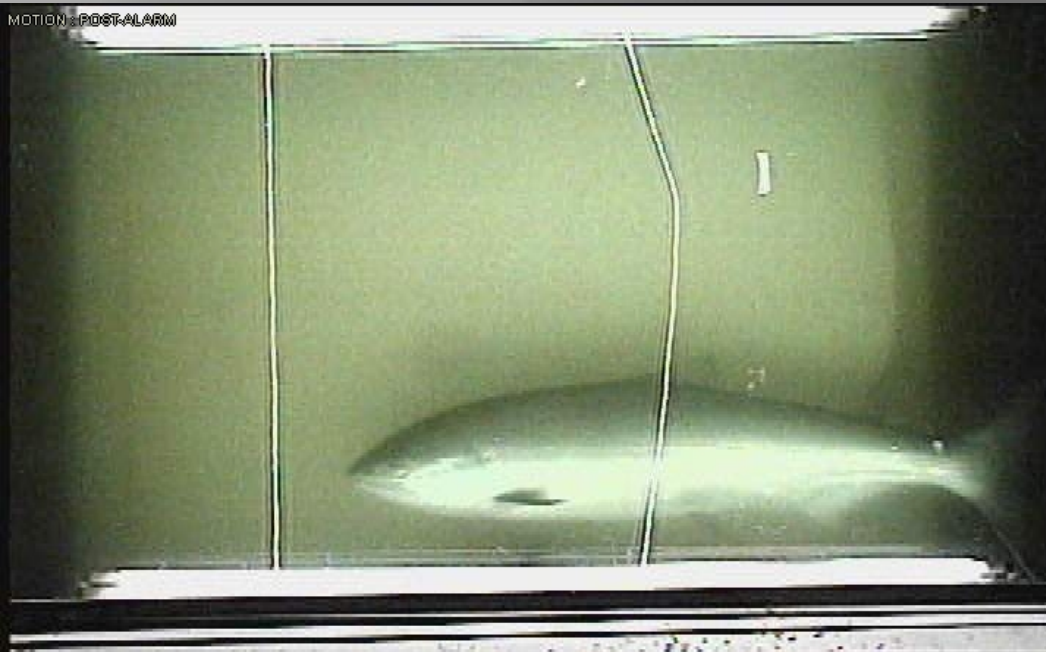
Prosser Dam Left
Ladder Window

SUMMER
observed 6/1/13
1:15pm



SPRINGER
observed 6/1/13
1:24pm

* Both Pit Tagged



Prosser Dam Left Ladder Window

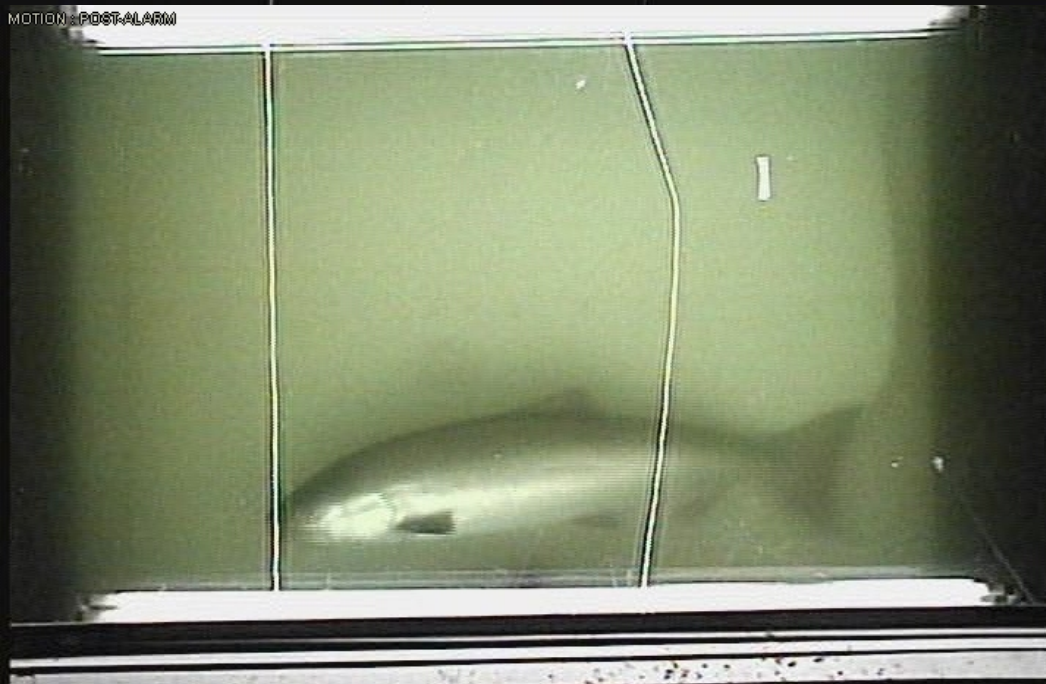
SUMMER

observed 5/28/14

1:56:27 pm

C03[0]5/28/2014 1:56:27 PM

MOTION: POST-ALARM



SPRINGER

observed 5/28/14

1:56:13 pm

C03[0]5/28/2014 1:56:13 PM

[Prosser DVR]CH03-CH3 6/1/2013 1:15:49 PM

Su 6/1/13 1:15pm



MOTION POST-ALARM

SU 5/28/14 1:56:27pm
Eastbank Stiles 5/16/11 BY09



C03[0]5/28/2014 1:56:27 PM

[Prosser DVR]CH03-CH3 6/1/2013 1:24:49 PM

Sp 6/1/13 1:24pm



MOTION POST-ALARM

Sp 5/28/14 1:56:13 pm
Easton 3/15/12 BY11



C03[0]5/28/2014 1:56:13 PM

2013-14 Plans on-going

- Bring in green eggs/milt from Wells Hatchery (MarionD); Final acclimation and release at Nelson and Roza sites.
- Continue In-basin Subyearling releases at Prosser, but cease the yearling component until infrastructure is better suited for a yearling program at Prosser Hatchery.
- Redd Surveys on the Yakima River between Prosser and Roza Dams and lower Naches River.

2014-15 Future Plans

- Feasibility to Radio Tag Summer Chinook.
- Continue to investigate additional summer chinook mobile acclimation sites for use in the Yakima River above Union Gap, or the lower Naches River.
- Utilize Stiles Pond for a portion of the Summer Chinook in 2015.
- Continue searching for an acclimation site in the lower river below Wanawish Dam (Horn Rapids) for out-of-basin fall chinook.

Acknowledgements

Yakama Nation Tribal Council

Fall Chinook/Coho: Gene Sutterliet Jr., Brady Carl, Joe Jay Pinkham III, Quincy Wallahee and Conan Northwind and Markeyta Pinkham who carried out the daily field activities

Prosser and Marion Drain Hatchery: Joe Blodgett, Michael Flander and the Hatchery crews

YN: Mel Sampson, Dave East, Mark Johnston, Todd Newsome, Bill Bosch, Dave Lind, Doug Neeley, Bill Flander and Ida Sohappi-Ike

Chandler Juvenile Monitoring Facility: Leroy Senator, Wayne Smartlowit, Morales Ganaelas and the rest of the crew

Yakama Nation Museum/Toppenish Museum: Parker Dam and Salmon photos.

WDFW Wells Hatchery

USFWS Fish Health.

BPA

BIG THANKS TO EACH OF YOU!

MOTION : POST-ALARM

QUESTIONS??

C03[0]5/22/2014 7:26:51 AM

Leading the Run!!

1st Summer Chinook over Prosser Dam 5/22/2014