

Yakima River Fall Chinook Supplementation 2010-11

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Goals and Objectives

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



Goals and Objectives

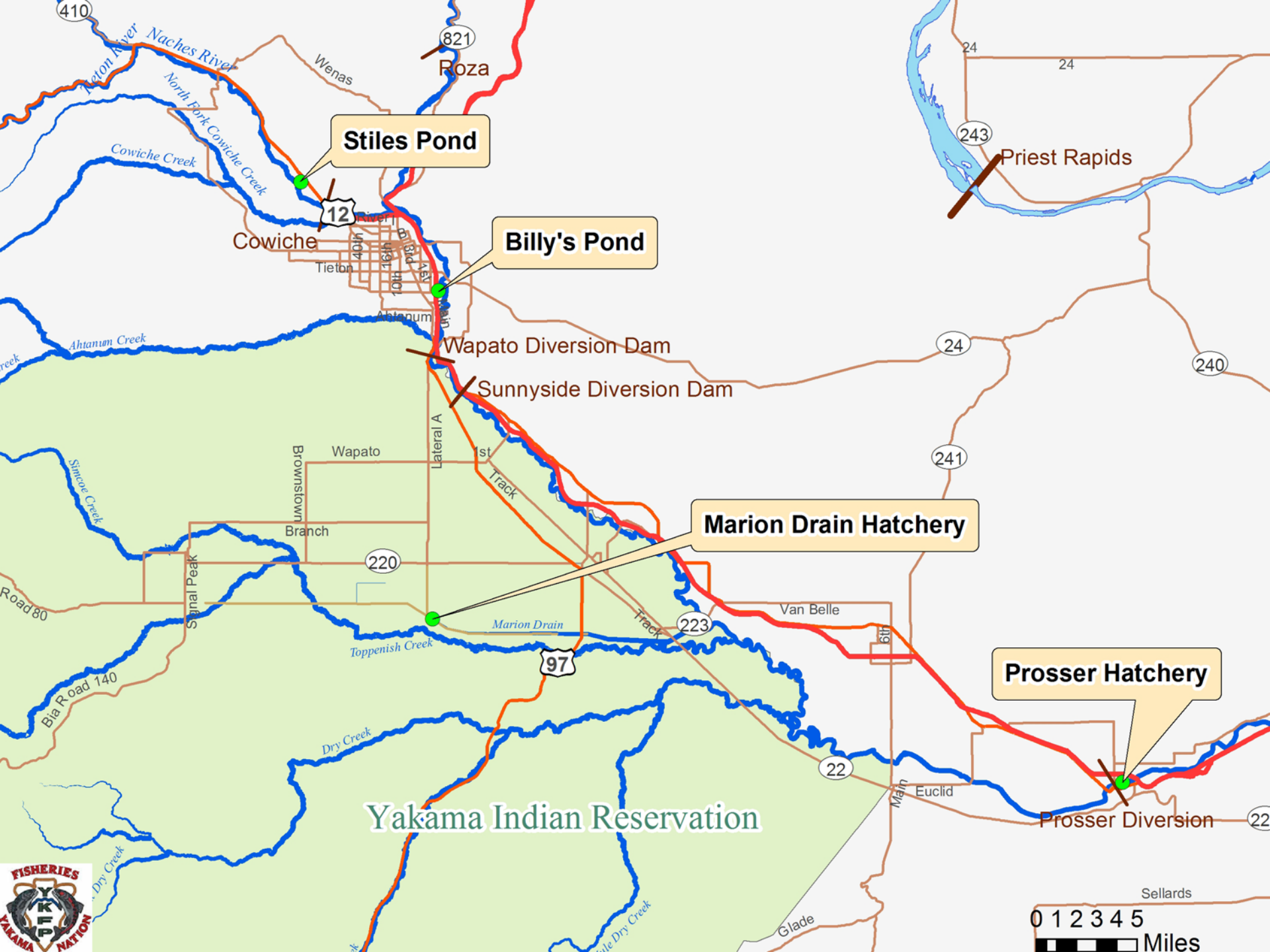
Harvest: 1) meet or exceed Treaty harvest obligations consistently and on a long-term sustainable basis, 2) maintain or increase recreational fisheries on a long-term sustainable basis

Habitat: continue work to address limiting factors as identified in the Yakima Subbasin Plan



Yakima River Releases 99-11

Released	LWH	Yakima Sub-Year	Yakima Yearling	Marion	Billys	Stiles	Skov/ Buck	TOTAL
1999	1,690,000	192,000						1,882,000
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	14,069	1,833	5,253	11,308	72,296	5,417	900,169
2009	1,647,275	299,574	7,516	24,245		180,911		2,159,521
2010	1,680,045	290,282	12,167	22,945		200,747		2,206,186
2011	1,699,944	~600,000	22,857			176,364	39,406	2,538,571



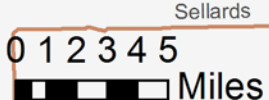
Stiles Pond

Billy's Pond

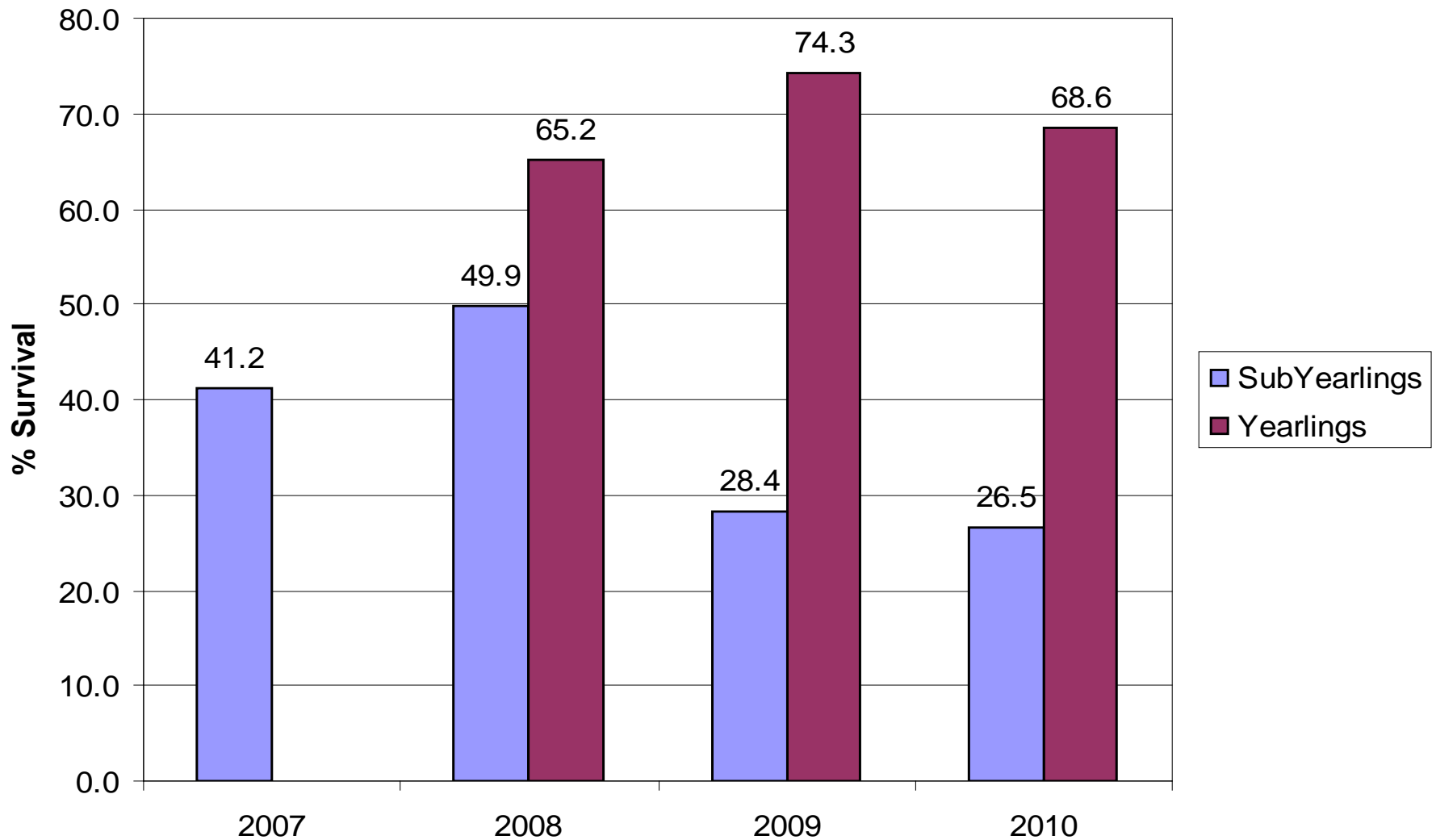
Marion Drain Hatchery

Prosser Hatchery

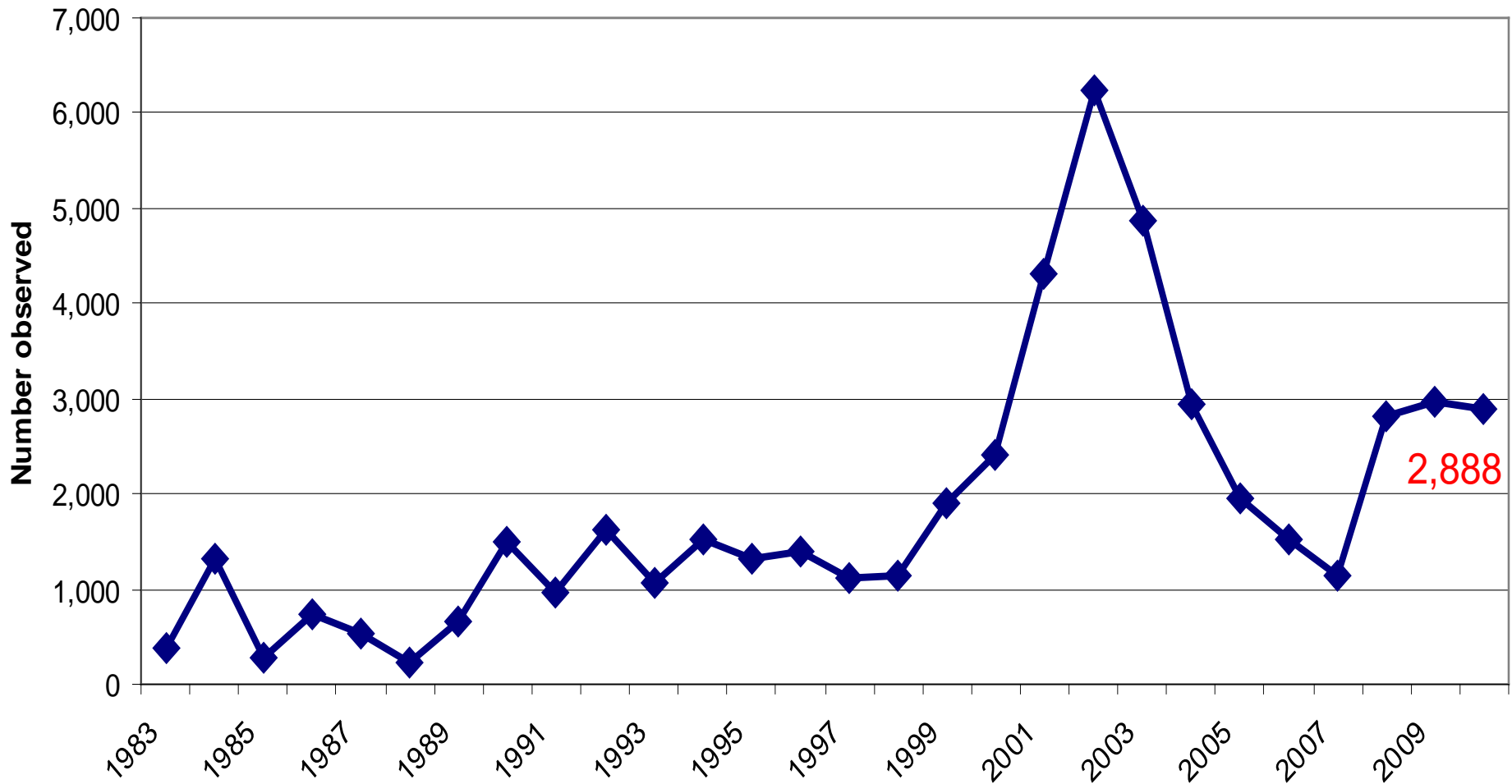
Yakama Indian Reservation



Yearling vs Sub-yearling to McNary (Neeley, 2011)



2010 Fall Chinook Adult Passage above Prosser Dam



2010 Redd Surveys above Prosser

2,888 Adults over Prosser Dam

Yakima River- 269 Redds

88 Emerald Rd to Granger (RM70-83)

161 Granger to Zillah (RM83-91)

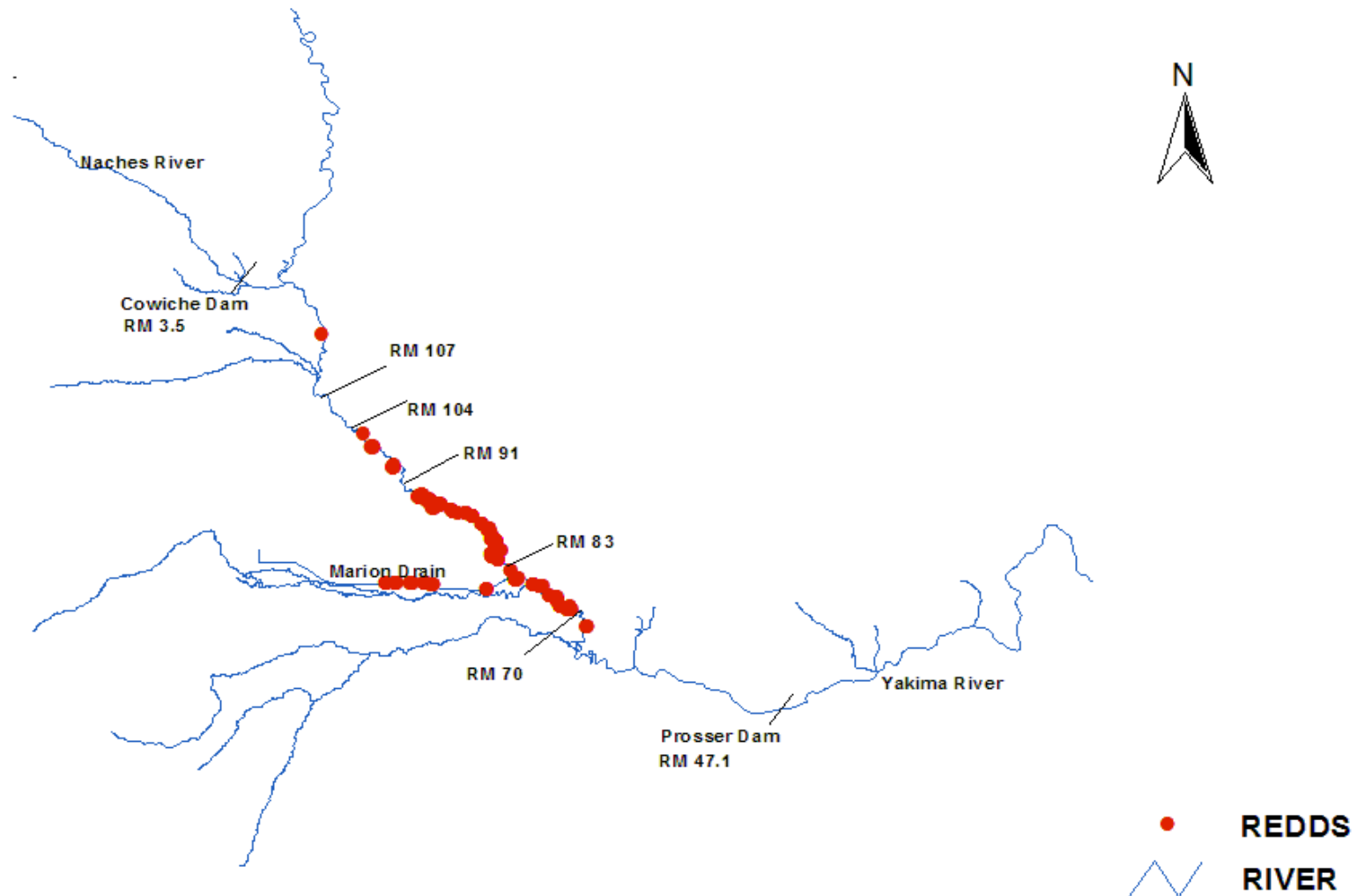
19 Zillah to SSD (RM91-104)

1 Union Gap (RM107-117)

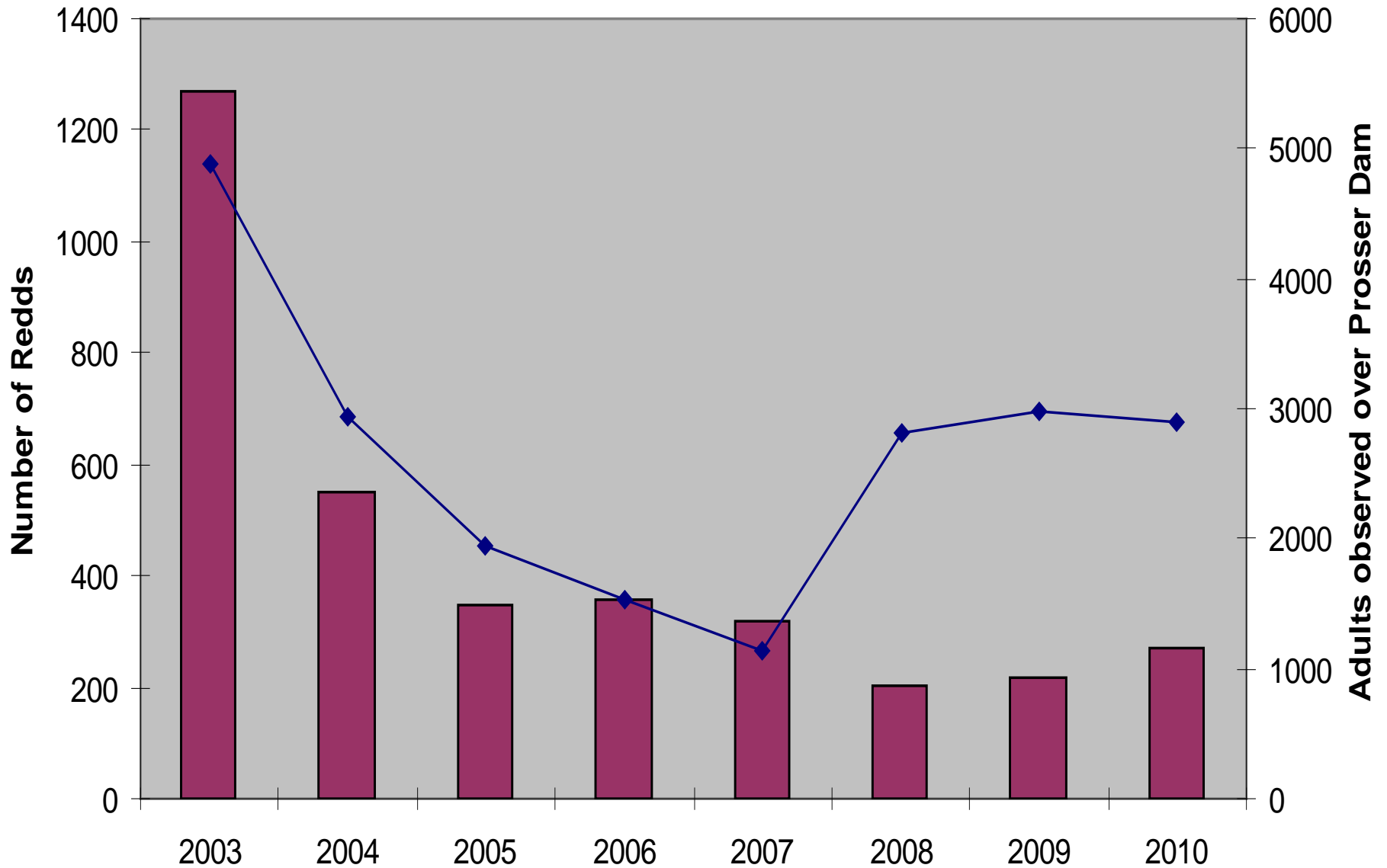
Naches River- 0 Redds

Wapatox Dam to Cowiche Dam

2010 Fall Chinook Redds



Yakima River Fall Chinook Redd Surveys above Prosser



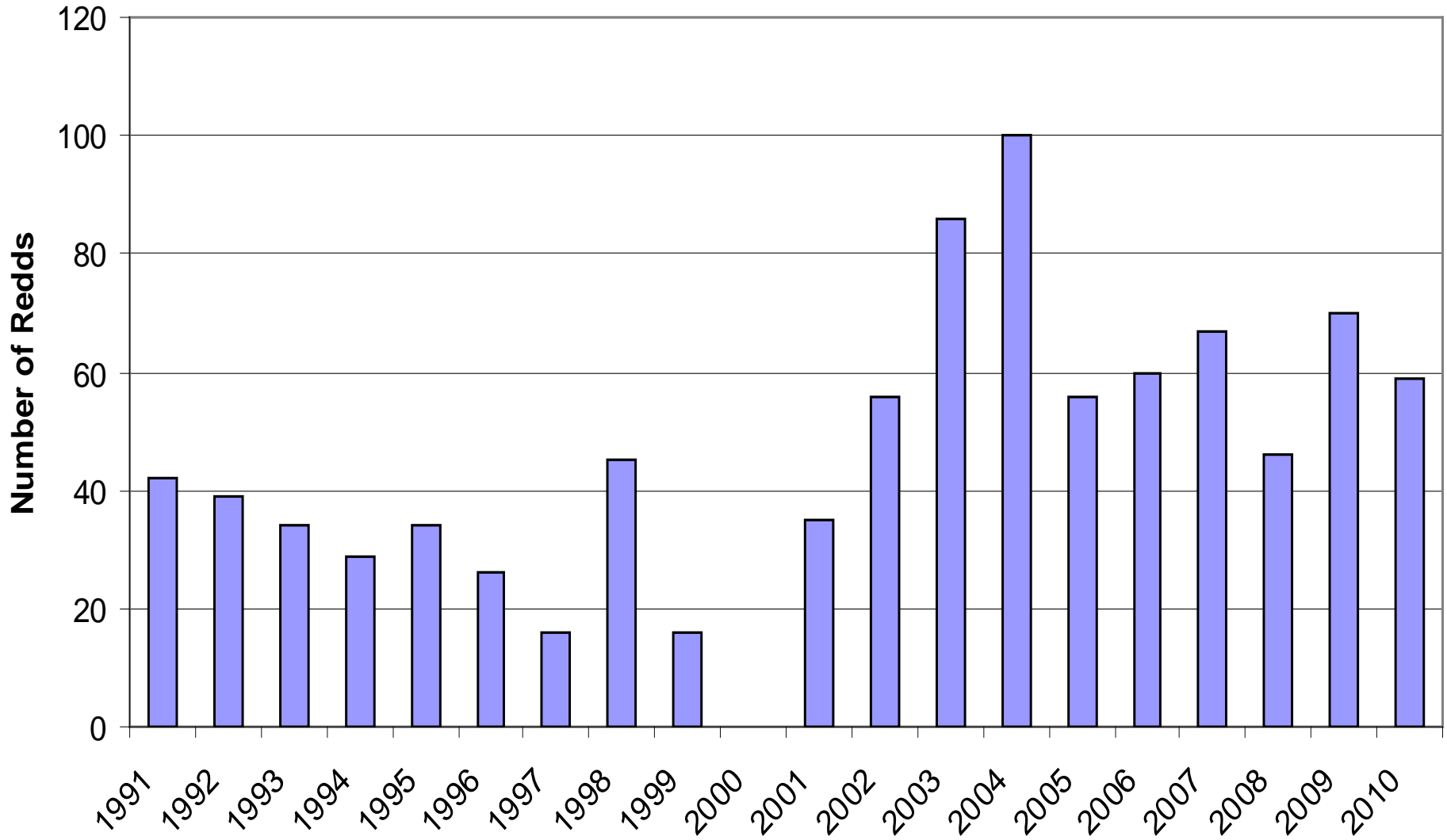
2010 Redds in Marion Drain

59 Redds

35.6% above Hwy 97

64.4% below Hwy 97

Marion Drain Redd Surveys



***No Surveys conducted in 2000**

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.

WDFW Wells Hatchery



YN Marion Drain Hatchery



Summer Chinook Release

	N Released	CWT only	PIT	Release
2008	180,911	150,866	30,045	6/12/09
2009	200,747	170,750	29,997	5/14/10
2010	39,406	9,513	29,893	4/29/11

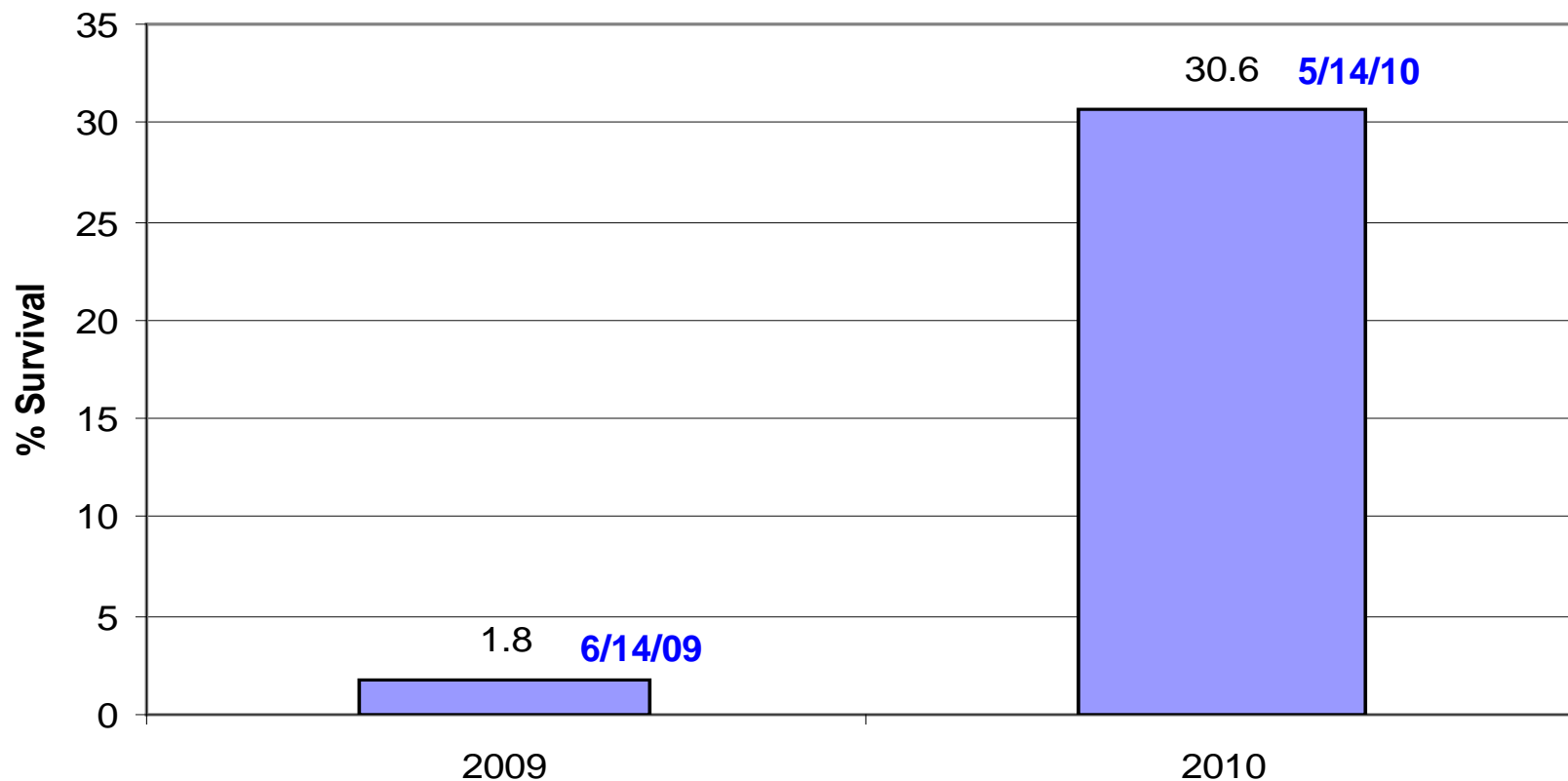
100% females tested for Virus and BKD
Results: all keepers!

BY2008-09 Released from Stiles pond, lower Naches River

*BY2010 Released from Buckskin Sleugh, lower Naches River

*Eastbank H. Summer Chinook Yearlings surplus (Wenatchee stock)
acclimated at Stiles pond.

Summer Chinook release to McNary



***2009 release was late and a 100% blockage determined at Wapato Dam fish bypass; cleared for 2010 release.**

***2011 release data pending.**

Wenatchee Summer Chinook Yearlings

	<u>N</u>	<u>Mark</u>	<u>Release</u>
BY2009	76,357	20K PIT 6,357 AD	5/16/11
BY2009	100,000	100% CWT+AD	5/16/11

Final Acclimation at Stiles Pond, lower Naches River

2010-11 Plans on-going

- Bring in green eggs/milt from Wells Hatchery
- Continue In-basin Yearling vs. Subyearling comparison releases from Prosser Hatchery.
- Bring in ~500,000 green eggs/milt from Priest Rapids H. as the initial phase of transition from using broodstock from the LWS hatchery to Priest Rapids Hatchery, as recommended by both USFWS hatchery review and the HSRG.
- Redd Surveys on the Yakima River between Prosser and Roza Dams and lower Naches River.
- Radio Tag Returning Adults at the Prosser Denil

2010-11 Future Plans

- Locate acclimation site in the lower river below Wanawish Dam (Horn Rapids) for out-of-basin fall chinook.
- Establish a summer chinook mobile acclimation unit for use in the Yakima River above Union Gap, or the lower Naches River.
- Finalize and Submit Fall/Summer Chinook Master Plan for approval.

Acknowledgements

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