

Steelhead Movements and Habitat Use
in the
Upper Yakima Basin

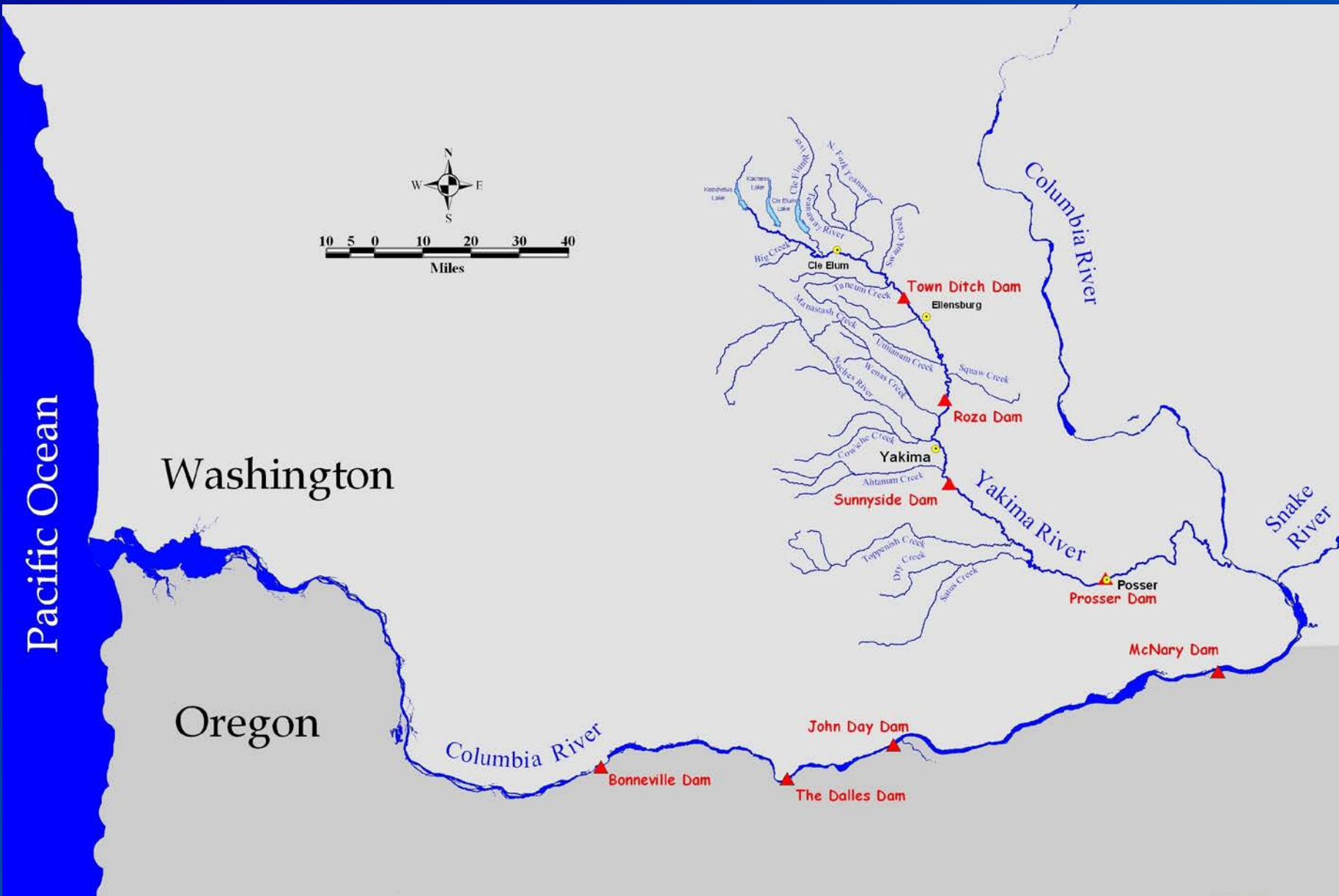
Acknowledgements

- Bureau of Reclamation – Denver and Yakima
- Yakama Nation – Mark Johnston and crew
- Travis Dick - University of Idaho



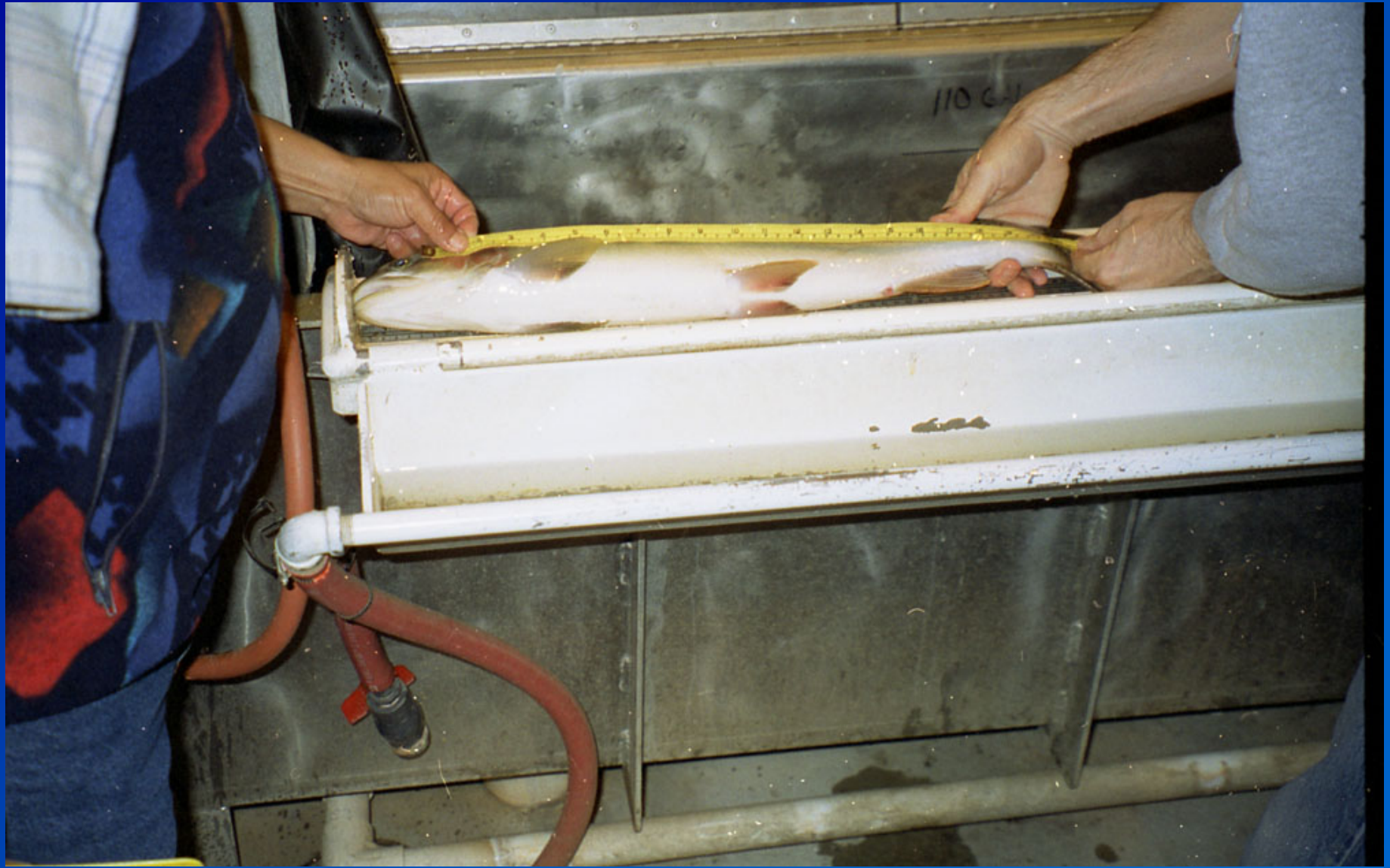
Objectives

- Determine adult steelhead habitat use in the upper Yakima River Basin
- Determine effects of Yakima R. flows at Roza on outmigration
- Determine effects of Reclamation's Yakima Water Project on steelhead in the Yakima basin

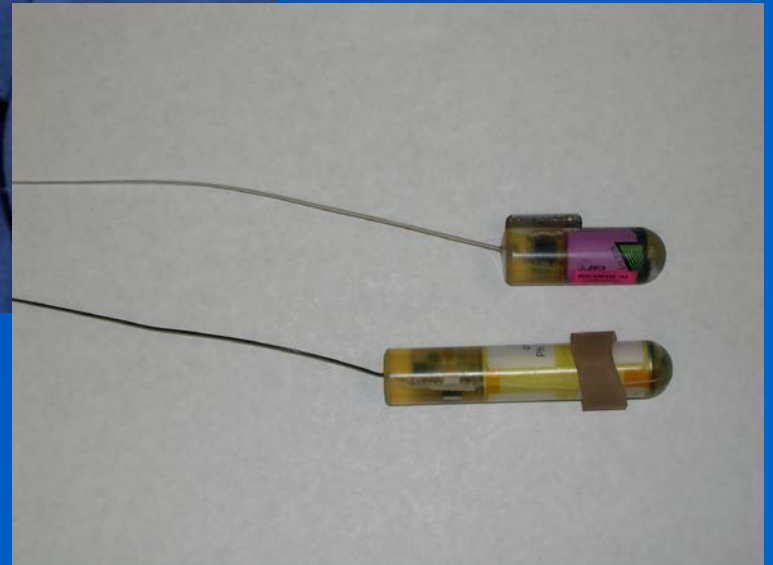




Roza Dam







Transmitter insertion





Roza Pool

Steelhead Arrival Times at Roza Dam, 2002-06

Year	Dates	Peak # fish
02/03	Nov18-May13	March 35, April 62
03/04	Feb2-Jun24	March 132, April 61
04/05	Sep19-Jun2	March 75, April 113
05/06	Sep27-May15	March 49, April 43

Roza Steelhead 2002-06

Year	#Prosser	#Roza	# active radiotags
02/03	2,224	134 (6.0%)	85
03/04	2,732	213 (7.8%)	98
04/05	3,362	252 (7.4%)	101
05/06	1,991	123 (6.2%)	101

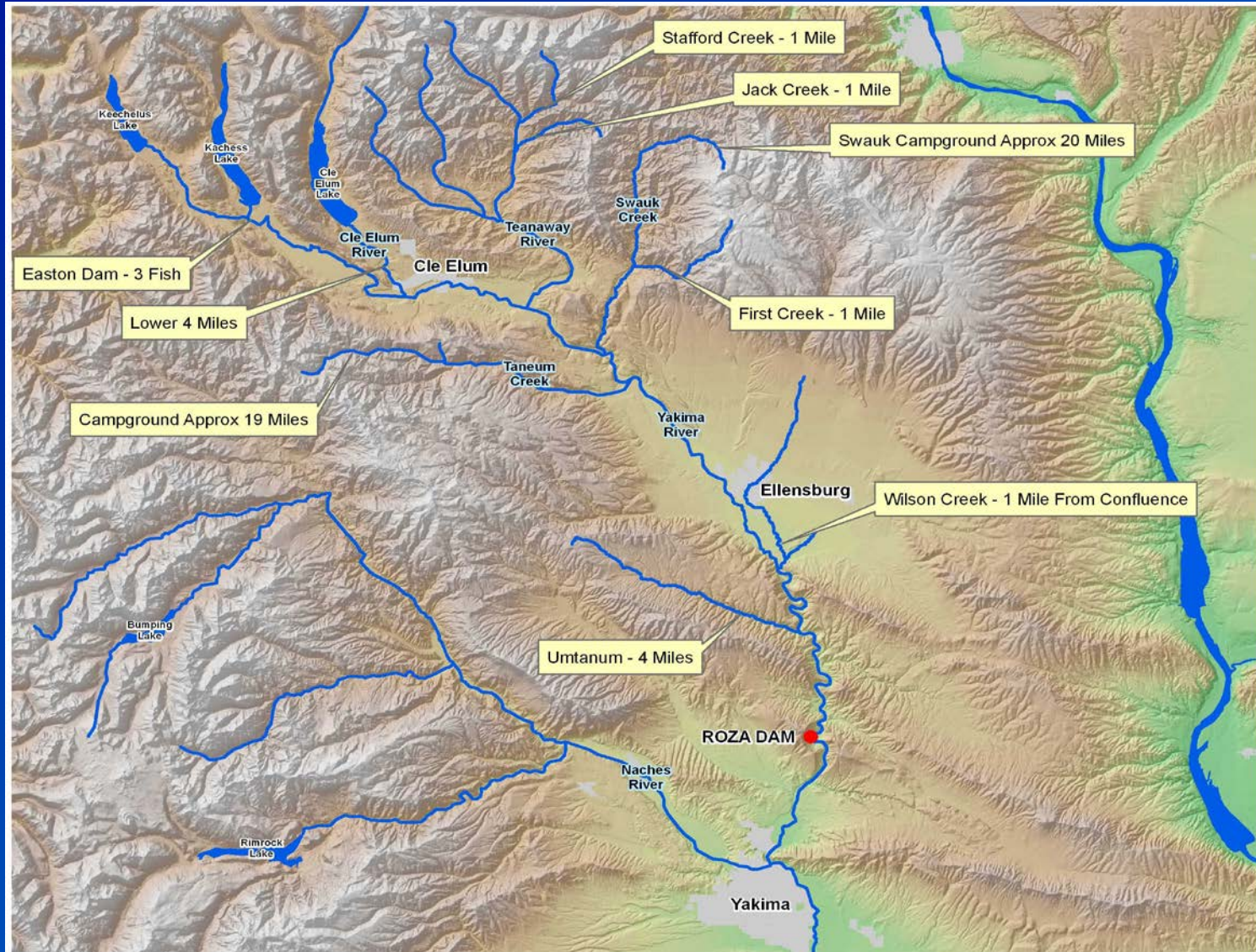
Sex, Age, Length, Weight Roza Steelhead, 2002-06

Year	Sex Ratio	Age	POL (cm)	Weight (kg)
02/03	1:6	4	57-58	3.4-3.7
03/04	1:3	3	50	2.3
04/05	1:4	4	55.5	2.9-3.0
05/06	1:2		55-58	2.9-3.4

Summary of Wild Steelhead Movements, 2002-2005 (of 278 active radiotagged fish)

Location of Presumed Spawning	# Radiotagged Steelhead
Mainstem Yakima River (between Roza and Easton Dams)	108 (38.8%)
Teanaway Drainage	109 (39.2%)
Swauk Creek	33 (11.9)
Taneum Creek	11 (4.0)
Cle Elum River	11 (4.0)
Lower Naches River, Umtanum, Cherry, and Wilson Creek	6 (2.1)
Total tributary	170 (61.2%)

Upstream Distribution of Adults



Teaway System



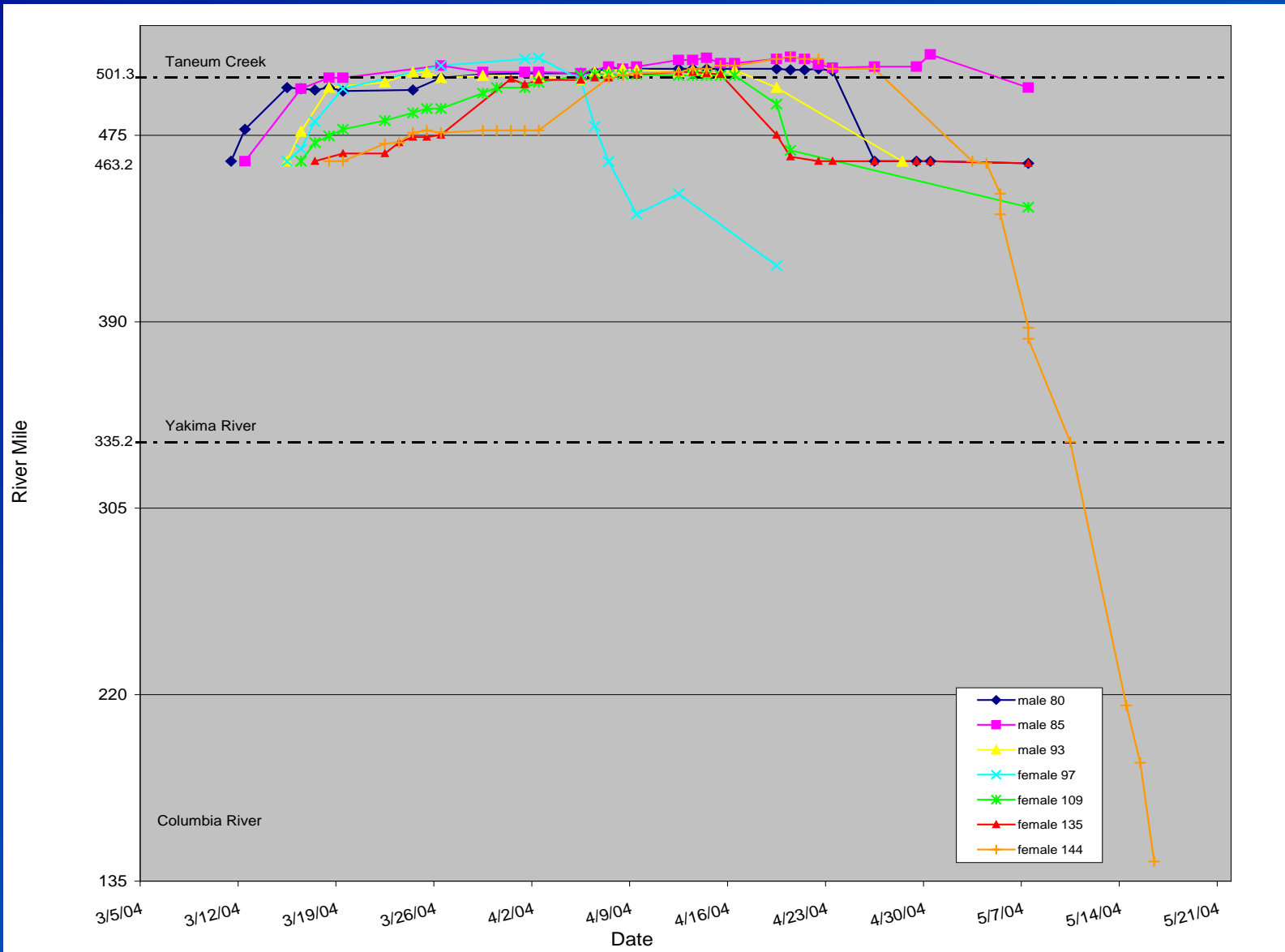
Swauk Creek



Taneum Creek



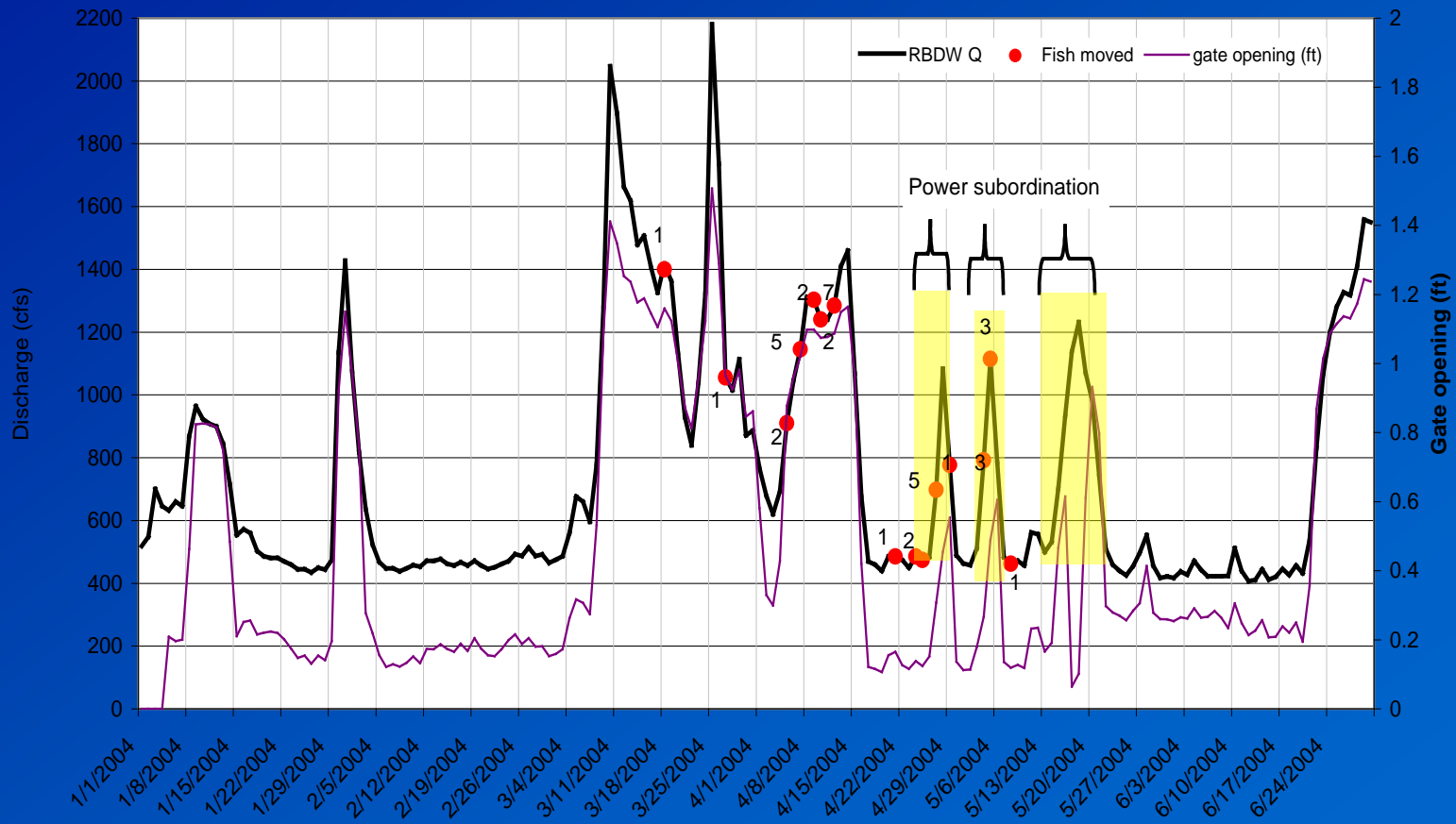
Movements of 7 wild steelhead in Taneum Creek, spring 2004



Upper Yakima Steelhead Spawning Fidelity

- About 24 wild male-female pairings located, all in tributaries (Taneum, Swauk, Teanaway)
- Females exhibit fidelity to a spawning reach (ex. Swauk female; 11 kelts)
- Males tend to roam within a drainage (ex. Teanaway males)

Flows, power subordination and downstream adult steelhead passage at Roza Dam, spring 2004



Present Plans

- Complete annual reports for 04-05 and 05-06 and 4-year summary report
- Begin juvenile steelhead program

