

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



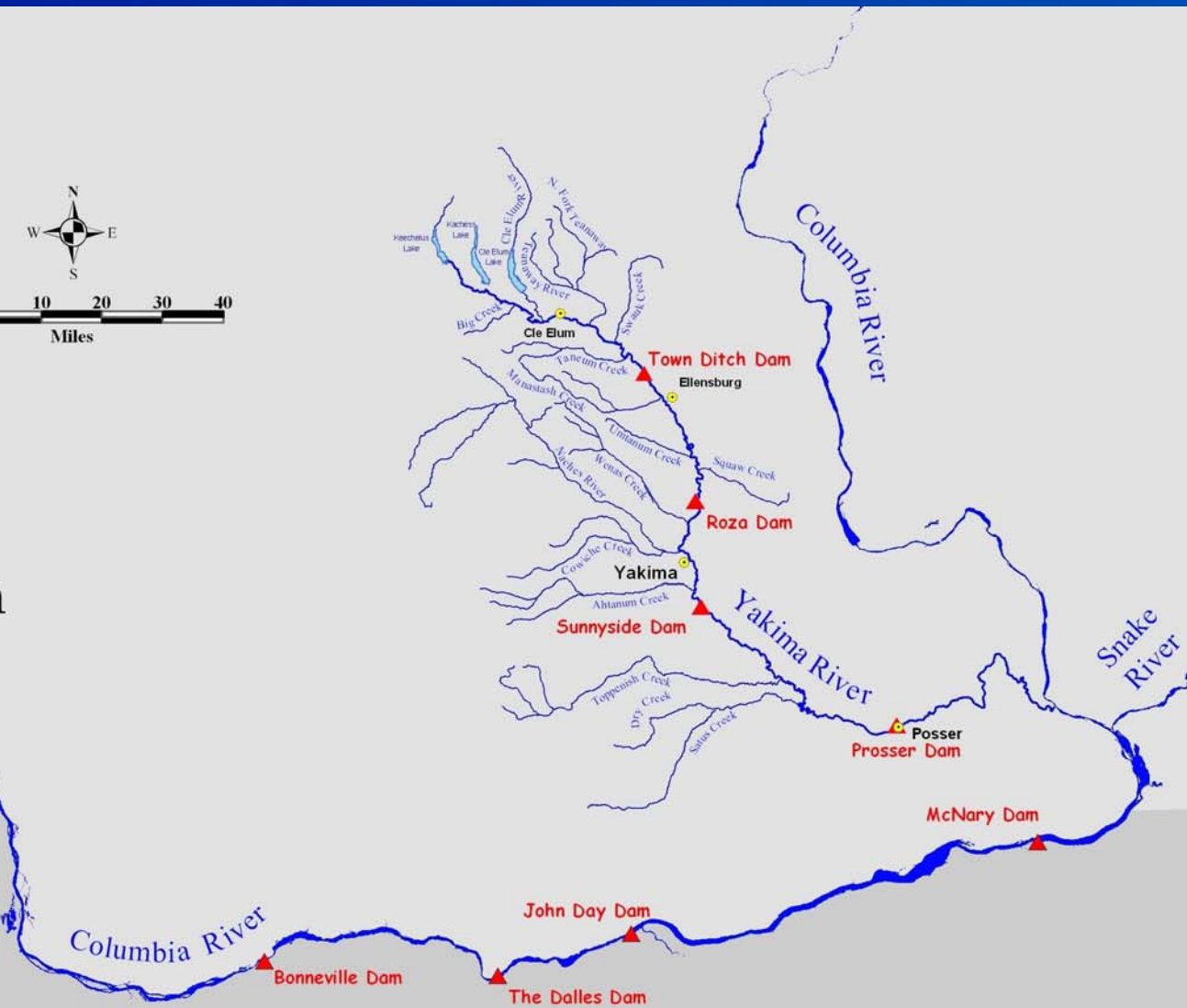
Objectives

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

Pacific Ocean

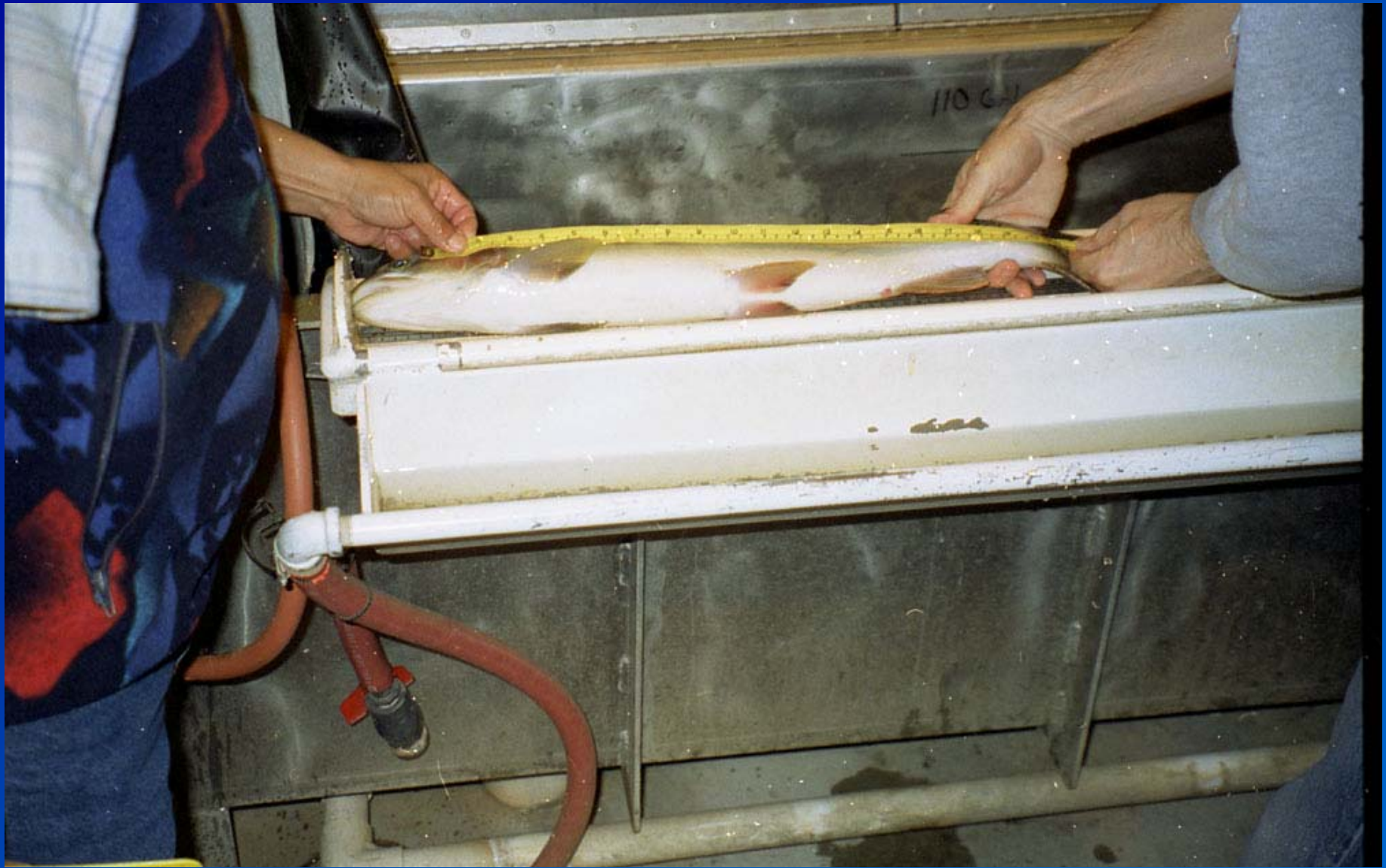
Washington

Oregon

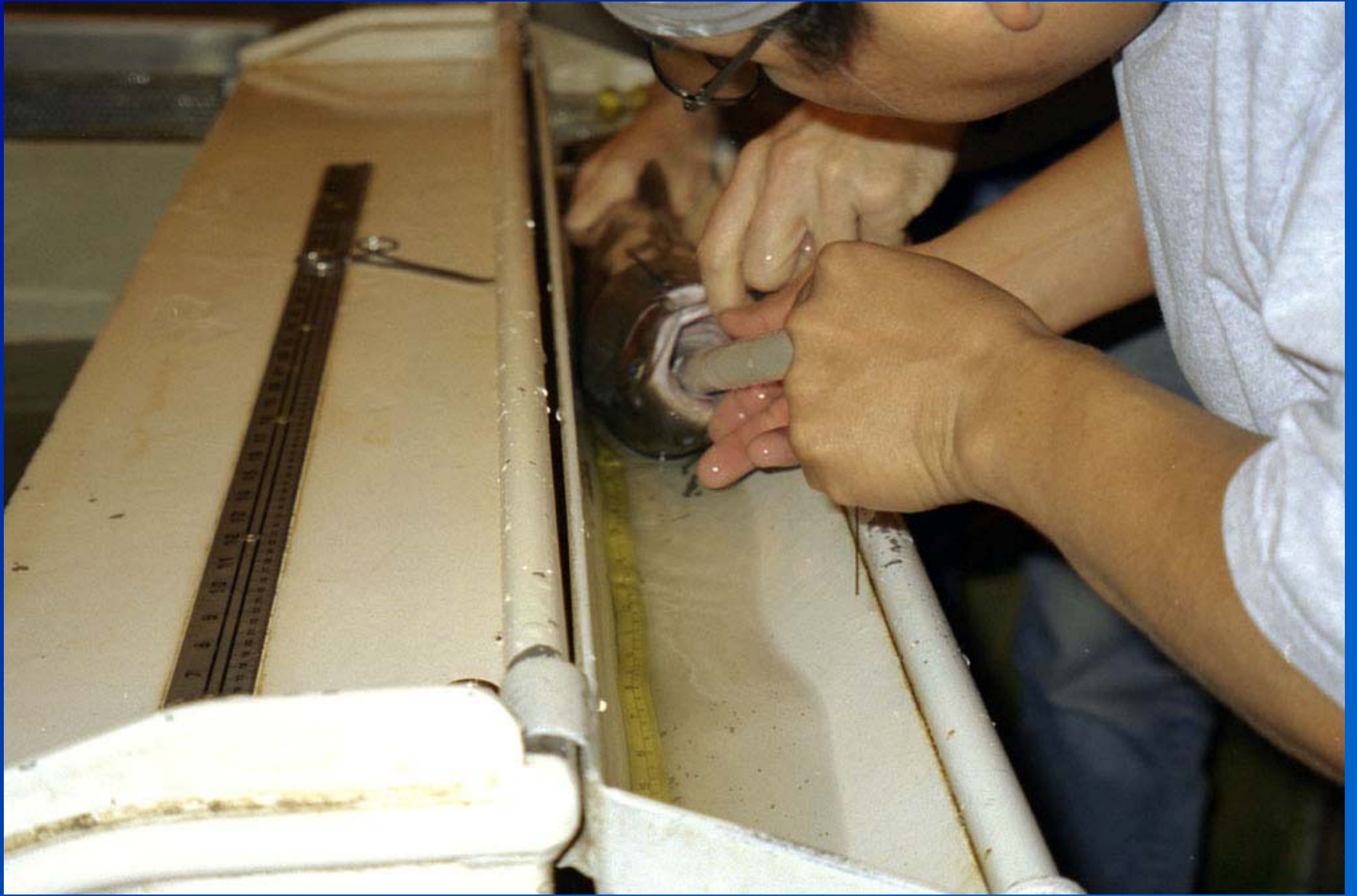




Roza Dam







Transmitter insertion





Roza Pool

Taneum Creek



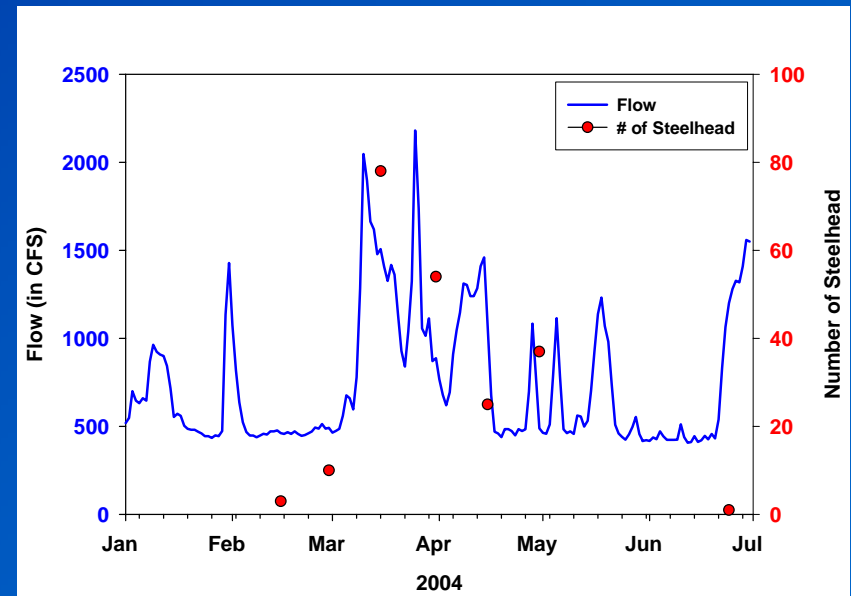
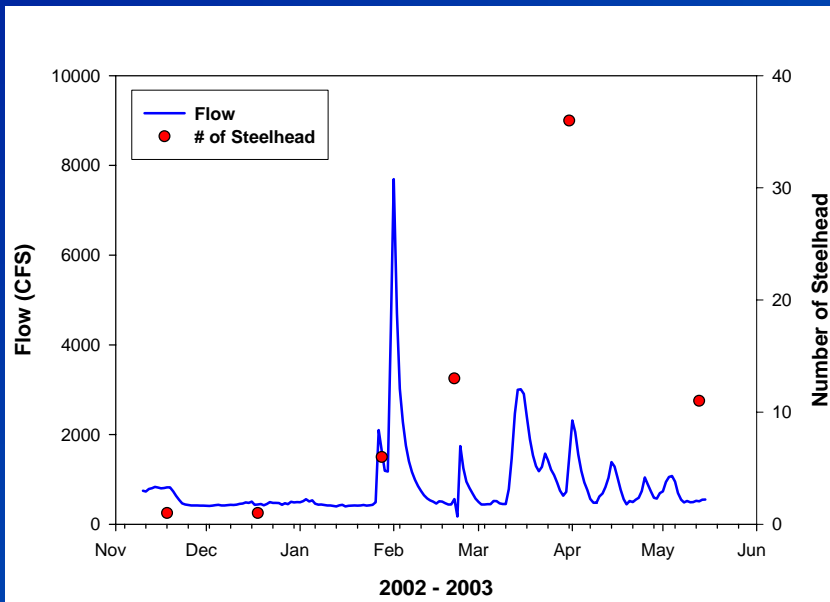
Swauk Creek



Teaway System



Relationship between timing of flows and #'s of steelhead ascending Roza Dam, 2002-2004



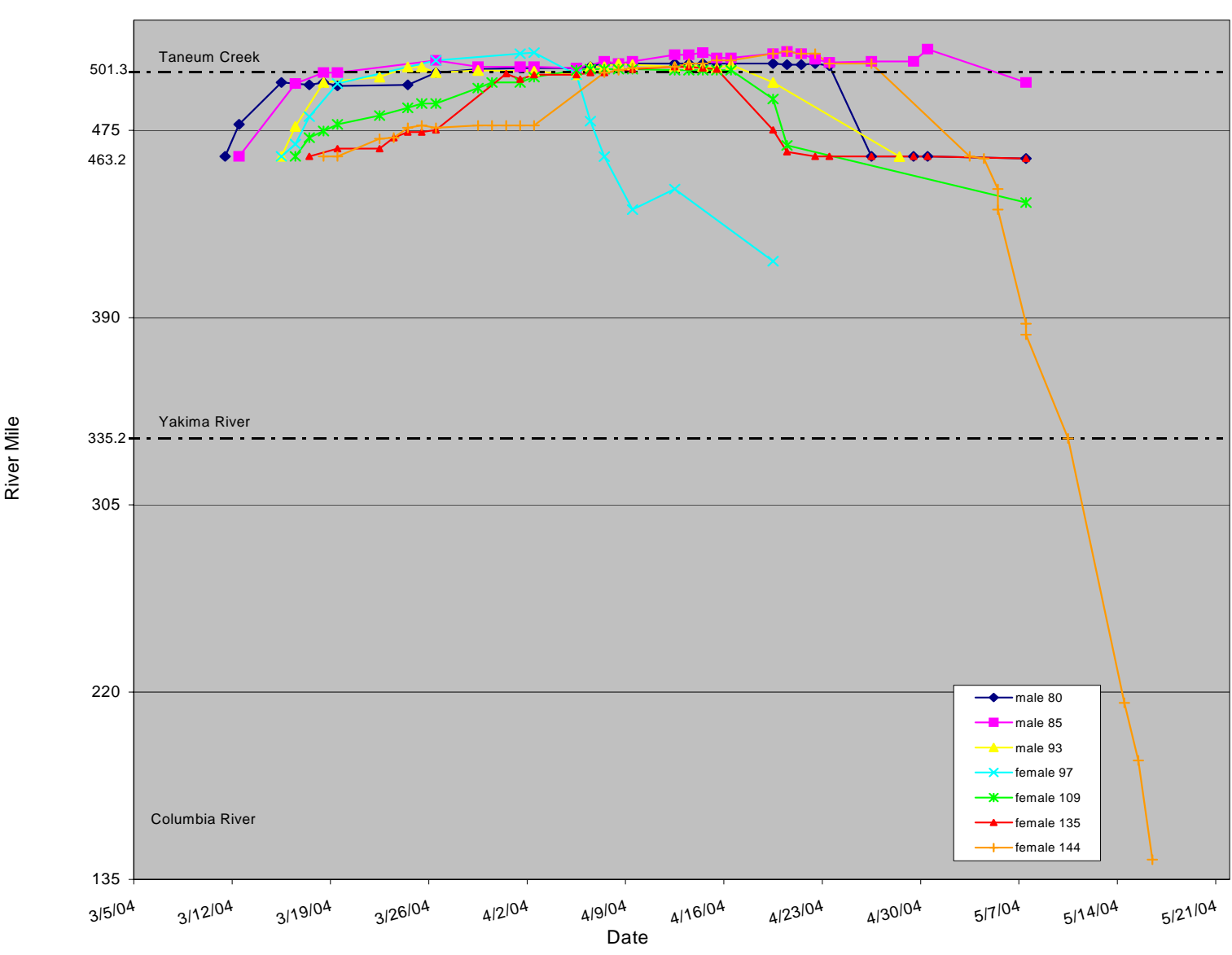
Length, Weight, and Age of Roza Wild Steelhead 2002-2004

- 2002-03 (126, mostly 4 year old)
 - wild females (109, 57 cm POL, 3.4 kg)
 - wild males (17, 58 cm POL, 3.7 kg)
- 2003-04 (208 fish, mostly 3 year old)
 - wild females (184, 50 cm POL, 2.3 kg)
 - wild males (53, 50 cm POL, 2.3 kg)

Summary of Wild Steelhead Movements, 2002-2004 (of 171 active radiotagged fish)

Location of Presumed Spawning	# Radiotagged Steelhead
Mainstem Yakima River (between Roza and Easton Dams)	74 (43.3%)
Teanaway Drainage	62 (36.3%)
Swauk Creek	18 (10.5)
Taneum Creek	8 (4.7)
Cle Elum River	3
Lower Naches River, Umtanum, Cherry, and Wilson Creek	6
Total tributary	97 (56.7%)

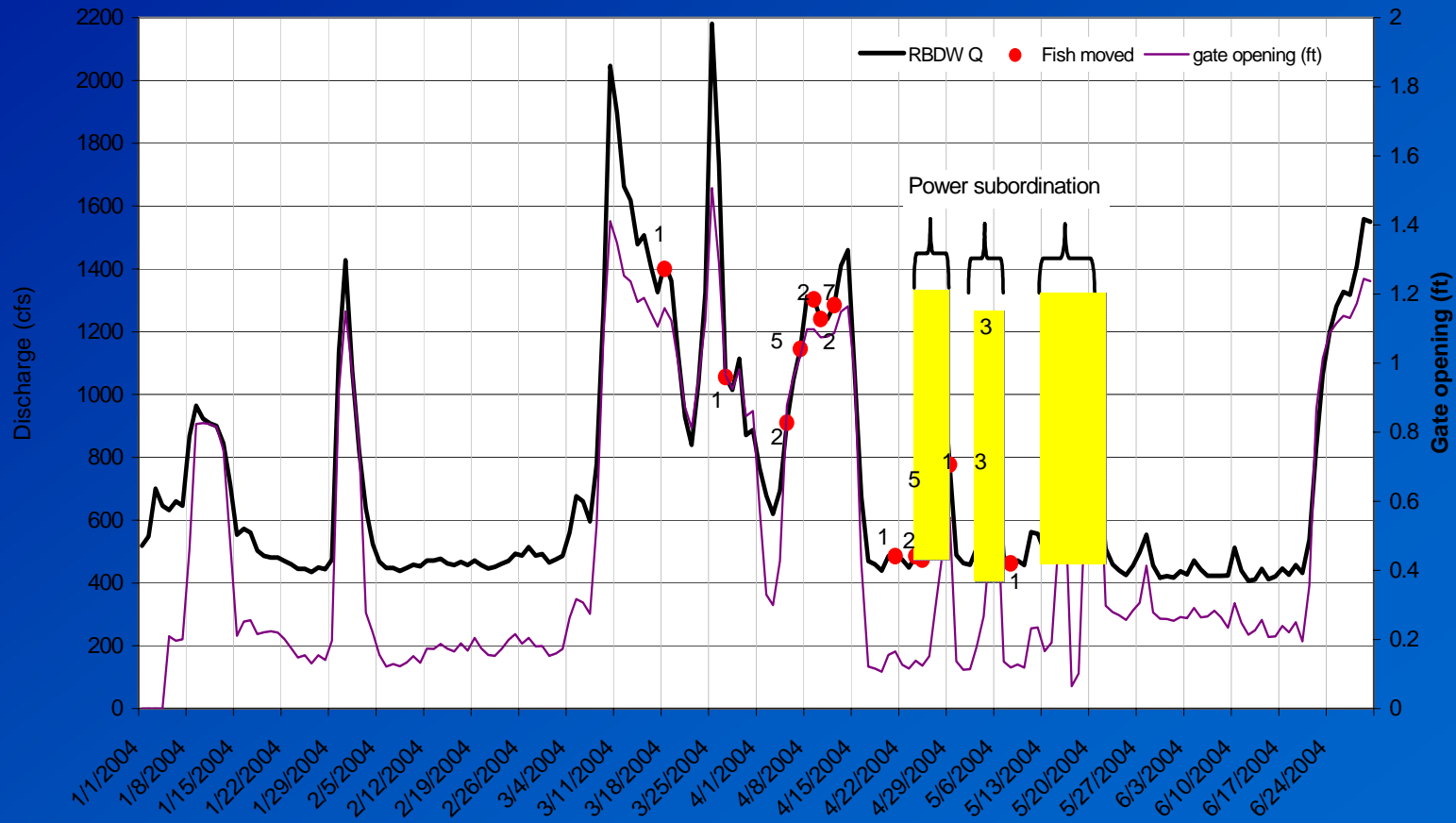
Movements of 7 wild steelhead in Taneum Creek, spring 2004



Upper Yakima Steelhead Spawning Fidelity

- About 20 wild male-female pairings located, all in tributaries (Taneum, Swauk, Teanaway)
- Females exhibit fidelity to a spawning reach (ex. Swauk female; 9 kelts)
- Males tend to roam within a drainage (ex. Teanaway males)

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



Impacts?



Present Plans

- focus on spawning reach identification, 24 hr behavior once in spawning tributary, increase spawning observations
- Improve understanding of flows and adult outmigration at Roza Dam



