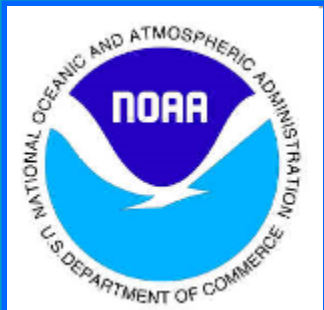




Klamath River Journey Salmon Recovery Collaboration in the Klamath River Basin



Irma Lagomarsino
NMFS Southwest Region
California Biodiversity Council
October 15, 2009

Klamath River Basin



Commercial Fishermen

Klamath Tribes

Upstream Irrigators

National Wildlife Refuges

Klamath Irrigation Project

Downstream Irrigators

Trinity River

Karuk
Yurok
Hoopa

BLM Land

Oregon
California

Pacific Ocean

Eureka

Medford

Yreka

Weaverville

Redding

Crater Lake

Agency Lake

Upper Klamath Lake

Lower Klamath Lake

Scott River

Salmon River

Trinity River

Trinity Falls

Trinity Dam

Willamson River

Sprague River

Link River

Kenai River

J.C. Doyle Dam

Iron Gate

Corco No 1

Corco No 2

Clear Lake

Clear Lake

Clear Lake

Clear Lake

Clear Lake

Clear Lake

Clear Lake

Clear Lake

Clear Lake

Clear Lake

Gerber Reservoir

Gerber Dam

Harbold Dam

Anderson-Rose Dam

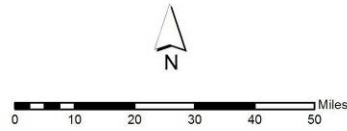
Lost River Div.

Trinity Dam

Lewisiston Dam

Buckhorn Dam

Trinity Dam



Klamath Salmon Recovery

- Goal is to recover Klamath river salmon by addressing limiting factors:
 - Improve rearing habitat
 - Increase juvenile survival and outmigration
 - Maintain & increase estuarine habitat complexity
 - Enhance Klamath ocean salmon fishery
 - Reduce sediment
 - Improve passage
 - Improve spawning habitat
 - Monitor fish population viability
- Working on Recovery through key partnerships

Shasta River Big Springs Creek Restoration



Partners:
The Nature Conservancy
US Fish and Wildlife Service
NOAA Restoration Center
University of CA, Davis
CA Dept of Fish and Game
National Fish & Wildlife Foundation

Goal: improve salmon rearing habitat



Cattle exclusion and passive restoration on TNC's Shasta Big Springs Ranch

Big Springs Creek, after being grazed throughout the winter of 2008-2009, March 2009

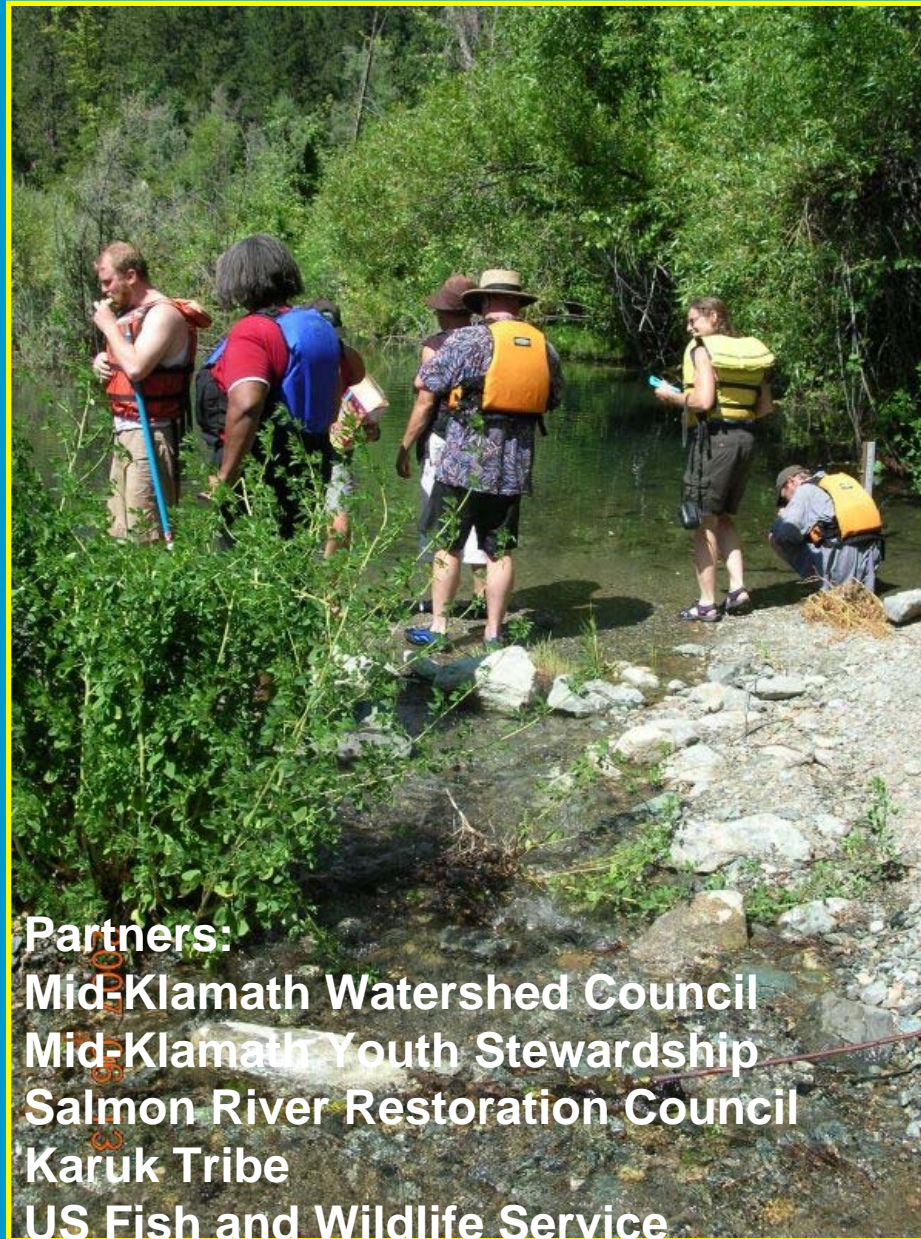
Big Springs Creek, after grazing exclusion during the spring-summer, July 2009

Goal: increase juvenile salmon survival
and out migration to the estuary



Photo Courtesy of Coos Watershed Council

Stanshaw Creek confluence side channel pool enhancement



Partners:

Mid-Klamath Watershed Council

Mid-Klamath Youth Stewardship

Salmon River Restoration Council

Karuk Tribe

US Fish and Wildlife Service

Enhancing access to cold water tributary habitat



Photo Courtesy of Will Harling

Goal: Maintain and Increase Estuarine Habitat and Complexity



Photo Courtesy of Dan Gale, US Fish and Wildlife Service

Habitat Complexity in South Slough, Klamath Estuary



Courtesy Dan Gale, US Fish and Wildlife Service

Goal: improve the Klamath ocean salmon fishery



Photo Courtesy of Paul Merz

Salmon Return to the Klamath Basin



Photo courtesy of Thomas B. Dunklin

Goal: reduce sediment from roads to streams





Horse Creek Road storm proofing

Partners: 2007.09.14
Klamath National Forest
NOAA Fisheries

Goal: Improve fish passage both upstream and downstream



Image courtesy of Thomas B. Dunklin

Flashboard dam on Shasta River, a partial barrier to fish passage



Shasta River after flashboard dam removal

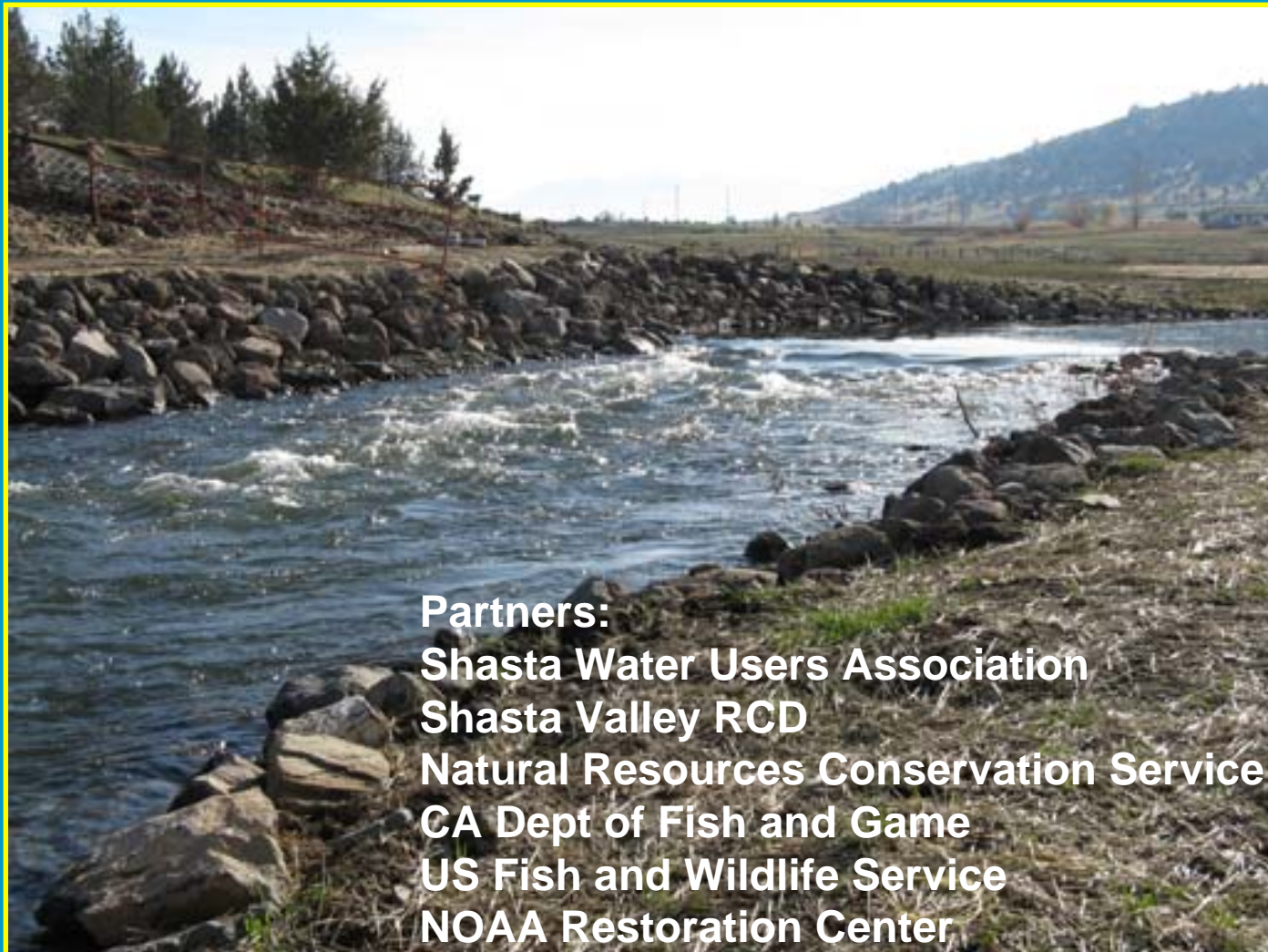


Photo courtesy of Amy Hansen

Whites Gulch, post dam removal

Partners:

Salmon River Restoration Council

Five Counties Roads Program

CA Dept of Fish and Game

USDA Klamath National Forest

US Fish and Wildlife Service

NOAA Restoration Center

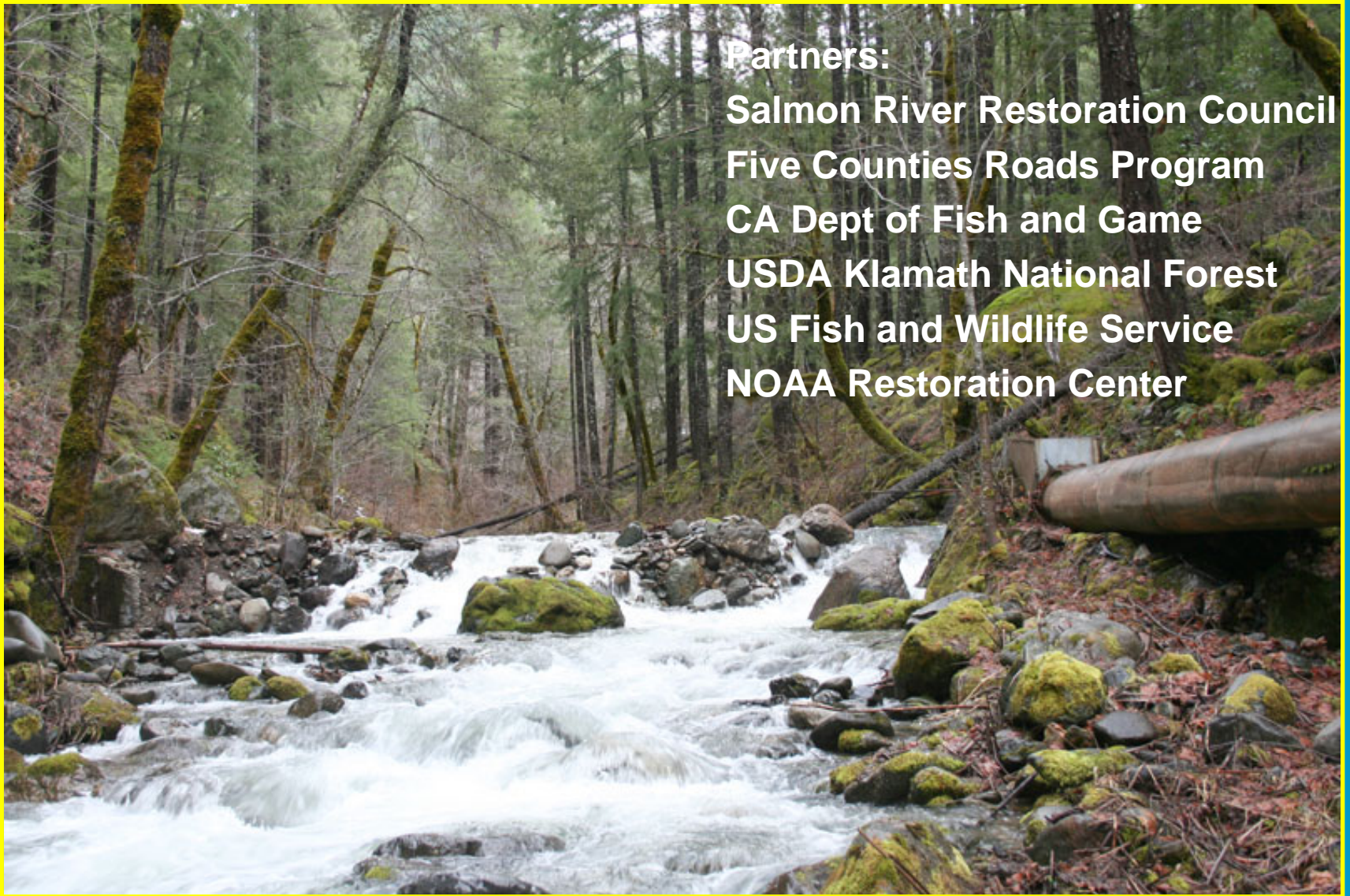


Photo courtesy of Jim Villepanteaux

Goal: Improve spawning habitat to enhance coho salmon spawning



Yreka Creek, a tributary to the Shasta River, has lost spawning and rearing habitat due to trash and fill dumping on the floodplain



Image courtesy of Jennifer Silveira, US Fish and Wildlife Service

Restored and planted floodplain, Yreka Creek Greenway

Partners:

City of Yreka

Yreka Creek Greenway

Tom Hesseldenz and Assoc.

Shasta Valley RCD

US Fish and Wildlife Service

NOAA Restoration Center

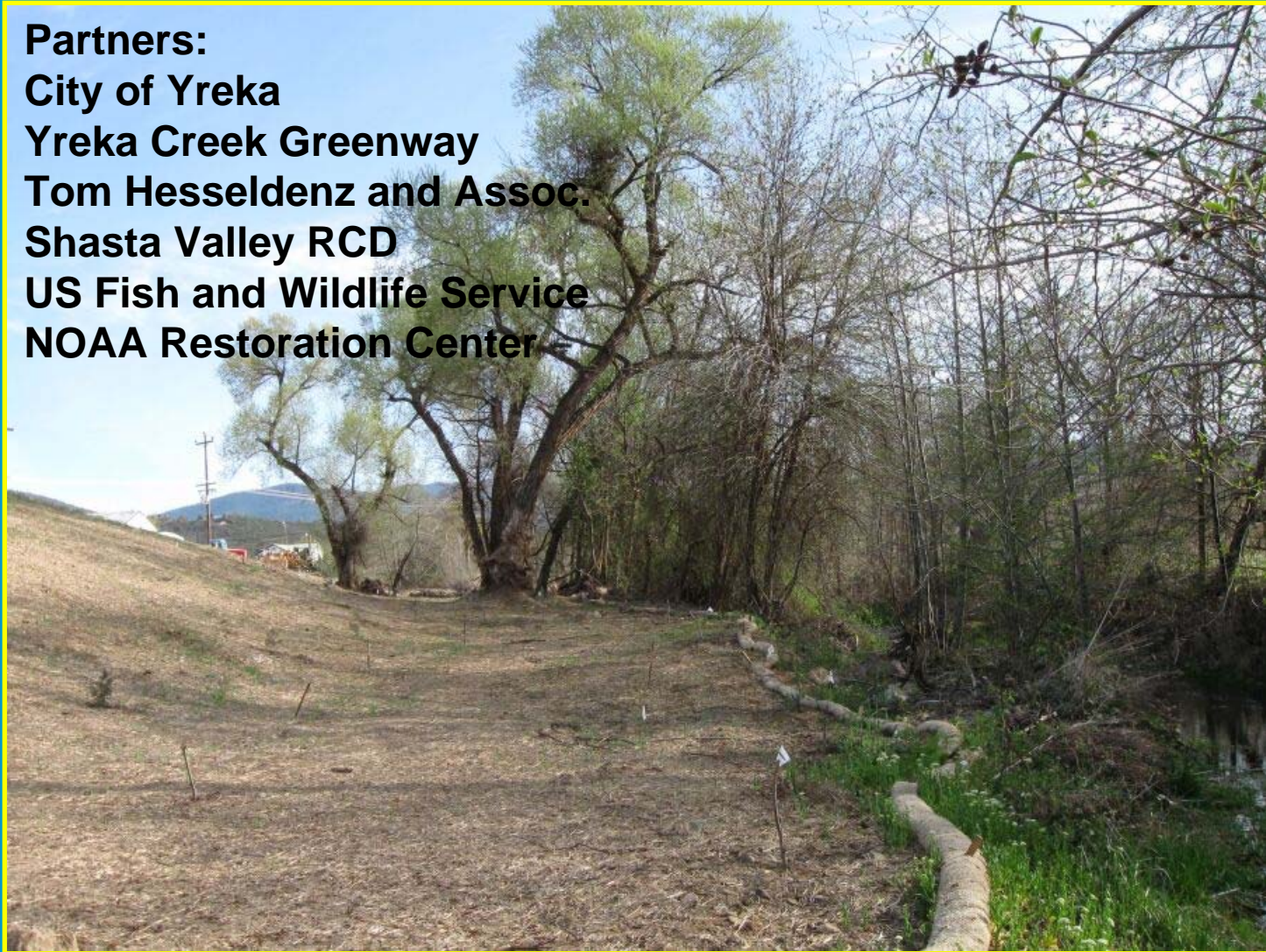


Image courtesy of Jennifer Silveira, US Fish and Wildlife Service

=>Improved salmon spawning and rearing habitat in the Klamath River

Juvenile coho and
Chinook salmon



Goal: monitor fish population viability from survey data collection and analysis



Partners:

Karuk Tribe

Private Landowners

Scott River Watershed Council

CA Dept of Fish and Game

US Fish and Wildlife Service

NOAA Fisheries

Courtesy of Jennifer Silveira, US Fish and Wildlife Service

Klamath Salmon Recovery is Partnership Dependent!

Thank you!