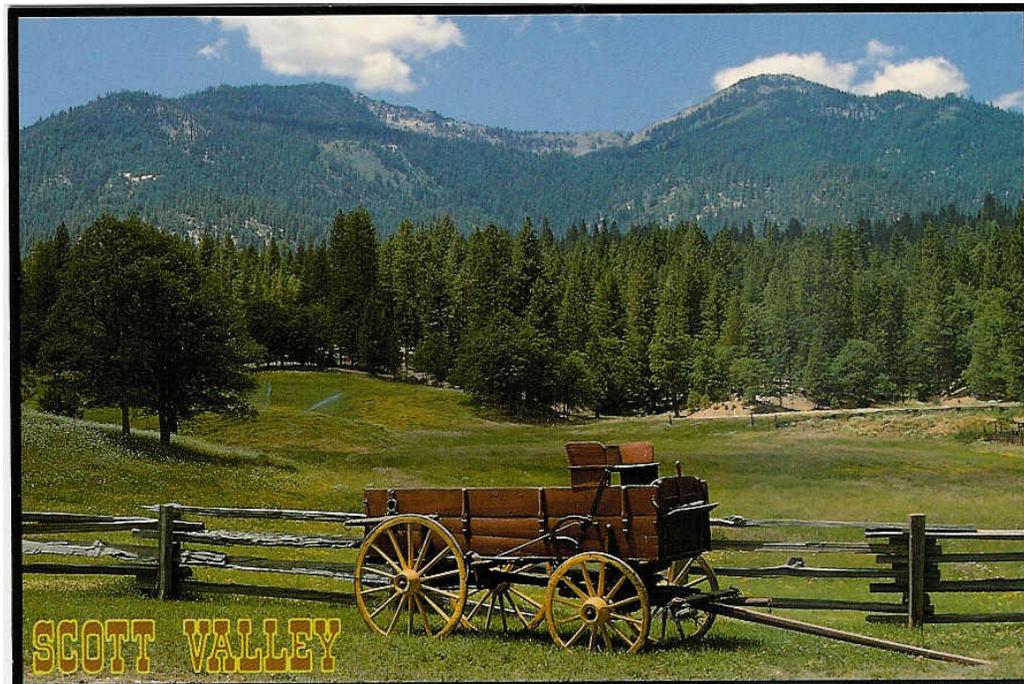
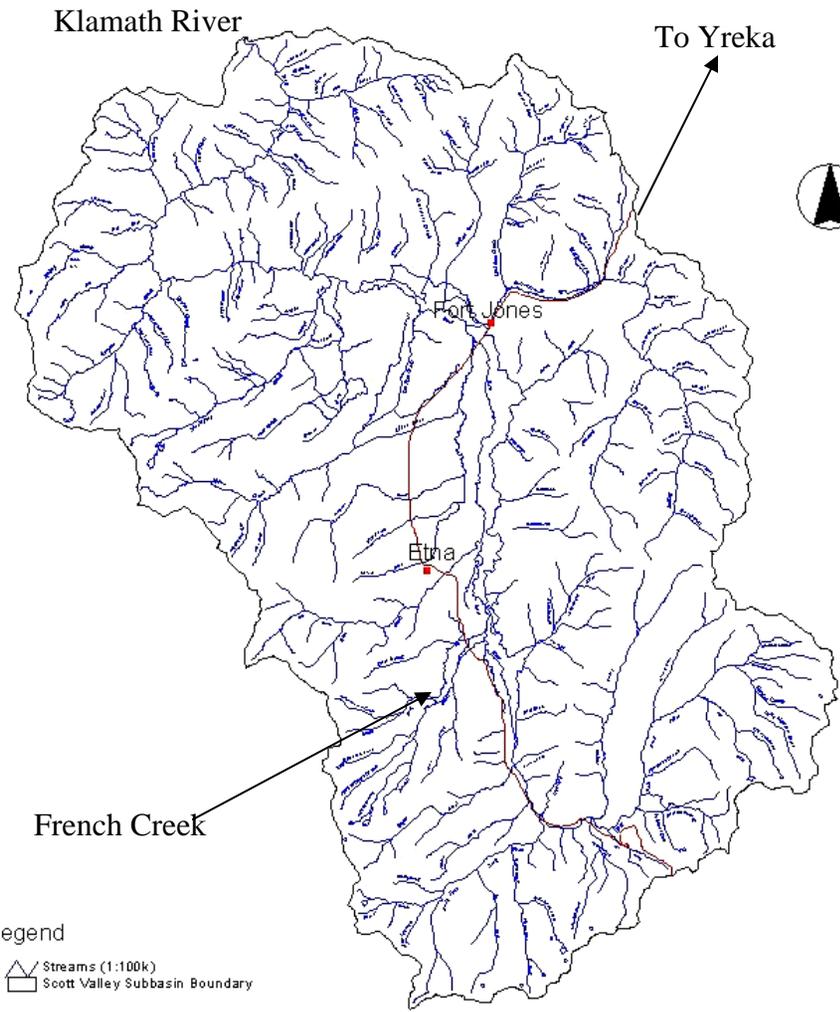


French Creek Watershed Monitoring Program, 1992-2004

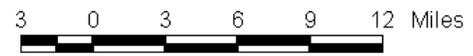
Sari Sommarstrom for the
French Creek Watershed Advisory Group



Scott River Subbasin Hydrology



Legend
Streams (1:100k)
Scott Valley Subbasin Boundary



Compiled by Carin Finke, 2/20/01
Humboldt State University
Advanced Spatial Analysis Facility
GIS 225-6-417
Layers: 1:100,000 scale
from Klamath River Basin ArcView Project and
GIS Data Layers, version 1.2, June 1998

French Creek Watershed Characteristics

- Size: 20,584 acres
(32 sq. miles)
- Elevation: 2,800 ft. to 8,000 ft.
- 63% underlain by decomposed granitic soils, or "DG"
- 100 miles of streams
- Land Ownership:
 - USFS 54%
 - Timber 34%
 - Ranch 9%
 - Residential 3%

Political Setting in 1990

“Ripe for War”

due to conflicts among timber,
USFS, residents, fish advocates,
and environmentalists

Symptoms



- Sand-filled pools & rearing areas for steelhead & coho
- Sand-filled spawning gravels
- Apparent lack of steelhead & coho in stream system

Causes?

- ???
- Logging was accused
- Cumulative Watershed Effects (CWE) by the US Forest Service showed French Creek watershed to be “over threshold”
- Lots of finger pointing upslope, across the creek, and downstream

Formation of Watershed Advisory Group

- HOW: California Board of Forestry initiated as a case study in mixed-ownership decision-making / UC Davis used as facilitator and coordinator of collaborative process until 12/92.
- WHEN: Began in Fall 1990, met bi-monthly until December 1992; annually since then.

WHO: Members

1. Siskiyou County – Road Department
2. Fruit Growers Supply Company
3. Sierra Pacific Industries (now Timber Products)
4. Roseburg Resources Company
5. U.S. Forest Service - Klamath NF
6. French Creek Drainage Property Owners Association

MEMBERS (continued)

7. Calif. Dept. of Fish and Game
8. Calif. Dept. of Forestry & Fire Protection
9. No. Coast Reg. Water Quality Control Bd.
10. Siskiyou Resource Conservation District
11. USDA Soil Conservation Service
12. State Water Resources Control Board
13. Marble Mountain Audubon Society

French Creek WAG GOAL

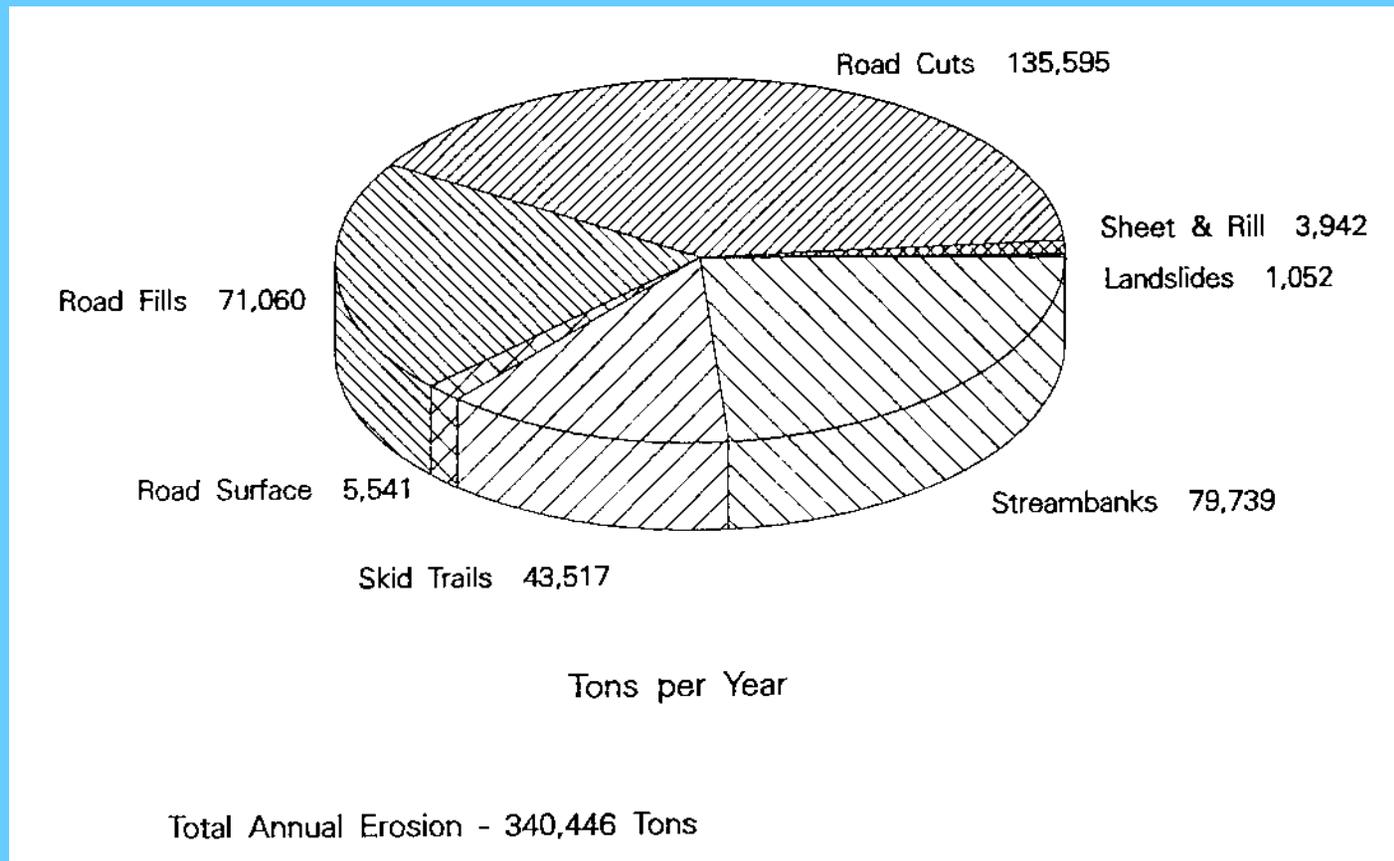
" To reduce the sediment yield in the French Creek watershed and to reduce, as much as is feasible, the potential for negative cumulative watershed effects. "

Causes ?



- Granitic Sediment Study in 1989-90 of Scott R. Watershed (USFWS funded)
- Upslope Sources of DG identified
- Sub-Watershed Sources identified

Sediment Sources – by Type



Sediment Source – by Area

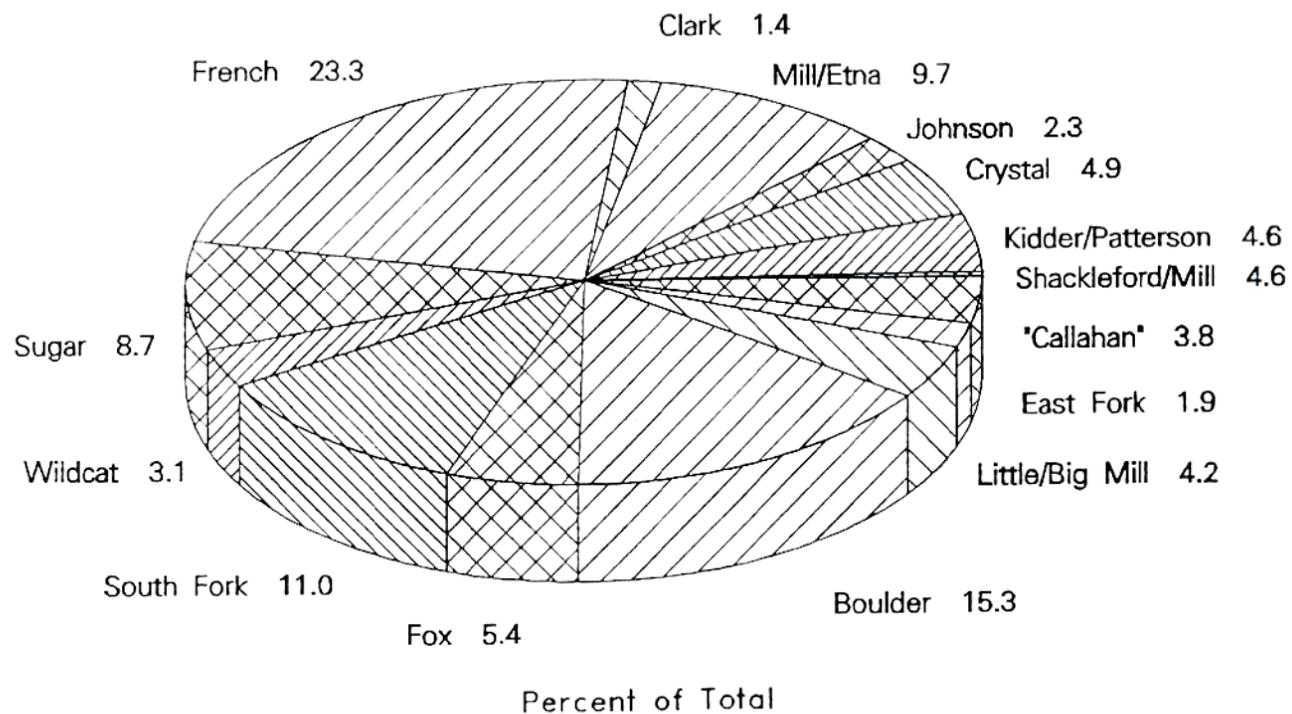


Figure 2-10.

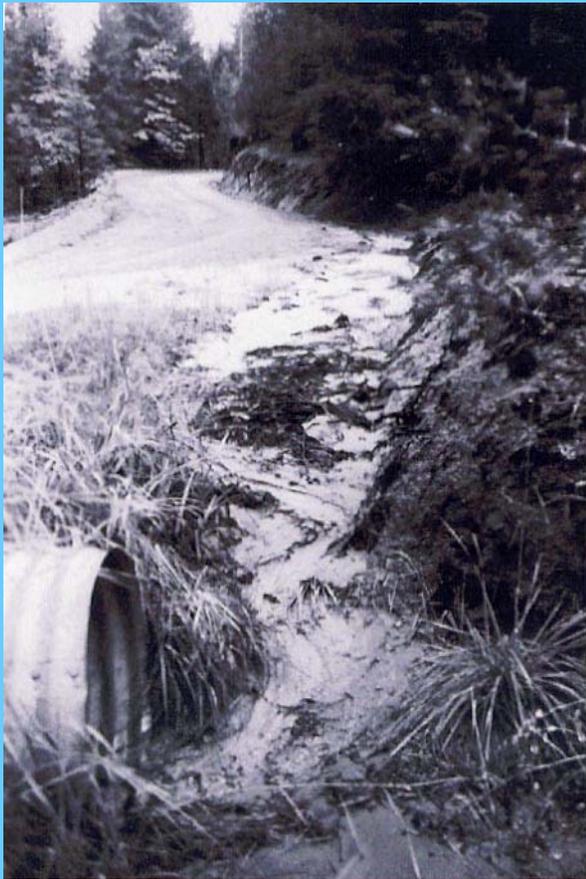
Road Management Plan – adopted by 1992

- 74 mi. of roads on DG soils
- 3.5 mi./sq. mi.
- Rocking & Outsloping



Road Management Plan – 1992

Before - 1990



After – 1991-99



Road Mgt. Accomplishments

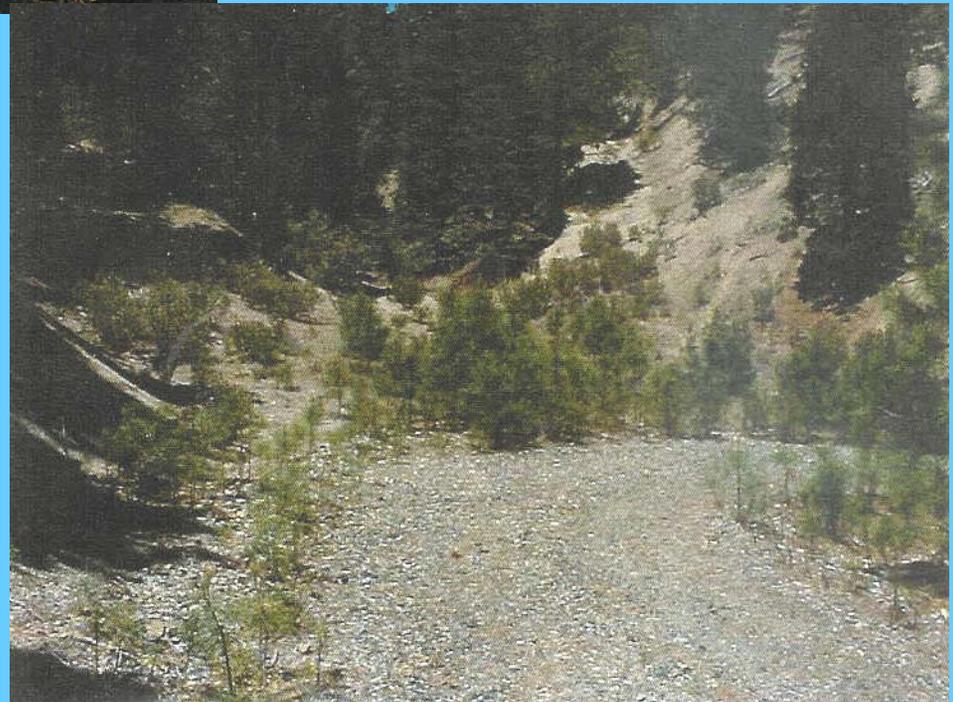
- 38 mi. unsurfaced road recontoured & rocked
- 4 mi. USFS put-to-bed
- 4 mi. private driveways rocked
- 20,000 trees planted on road cuts
- Cut & fill erosion control
- Timber roads gated

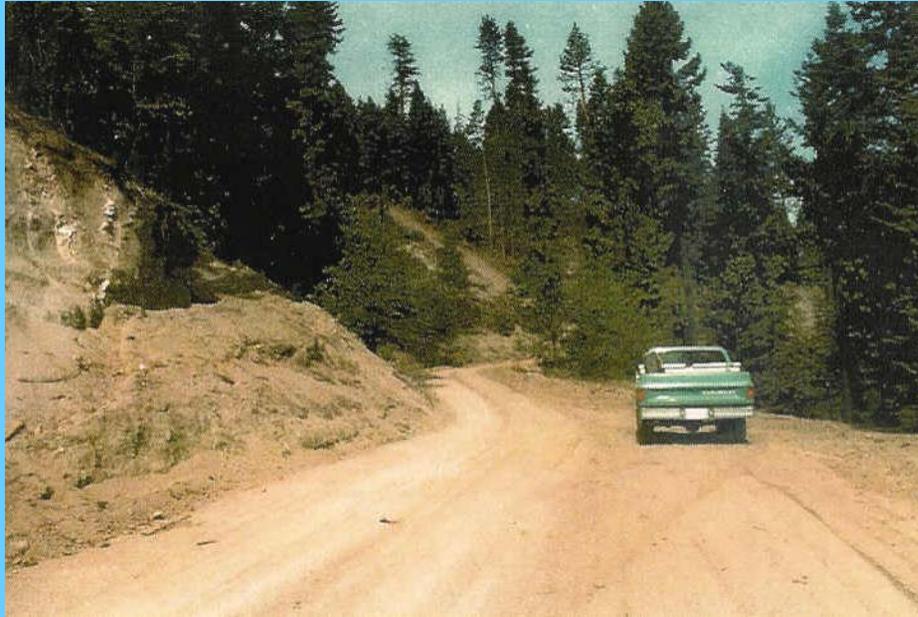




Landing on private road
in **1988**, after logging

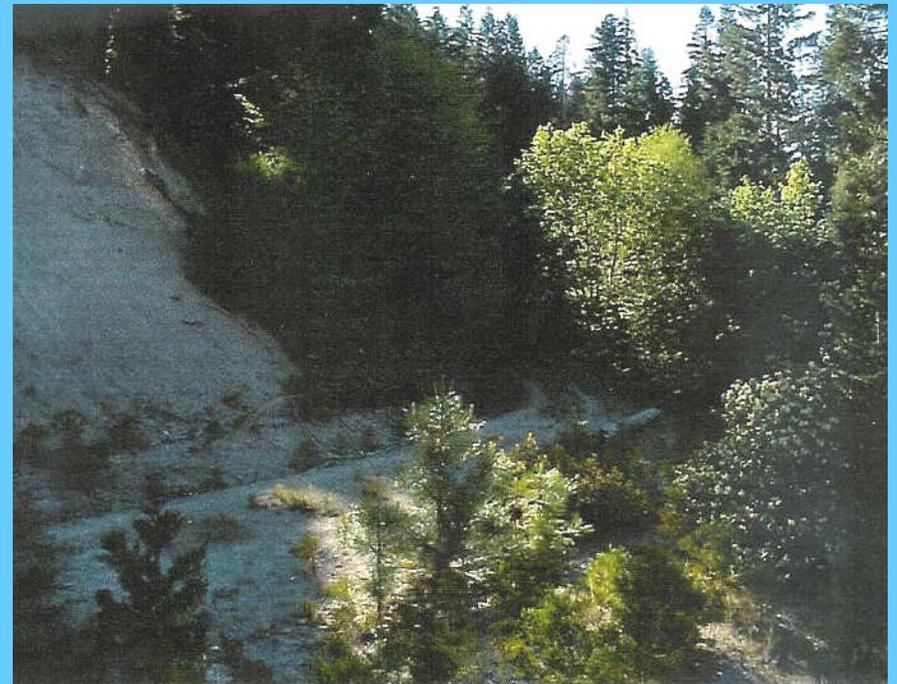
Same landing in **2001**,
after road rocked & no
use of landing.





Duck Lake Road in **1988**, after logging and road blading.

Same road in **2001**, after road restored and closed to public access.



Monitoring Plan – 1992

Objectives



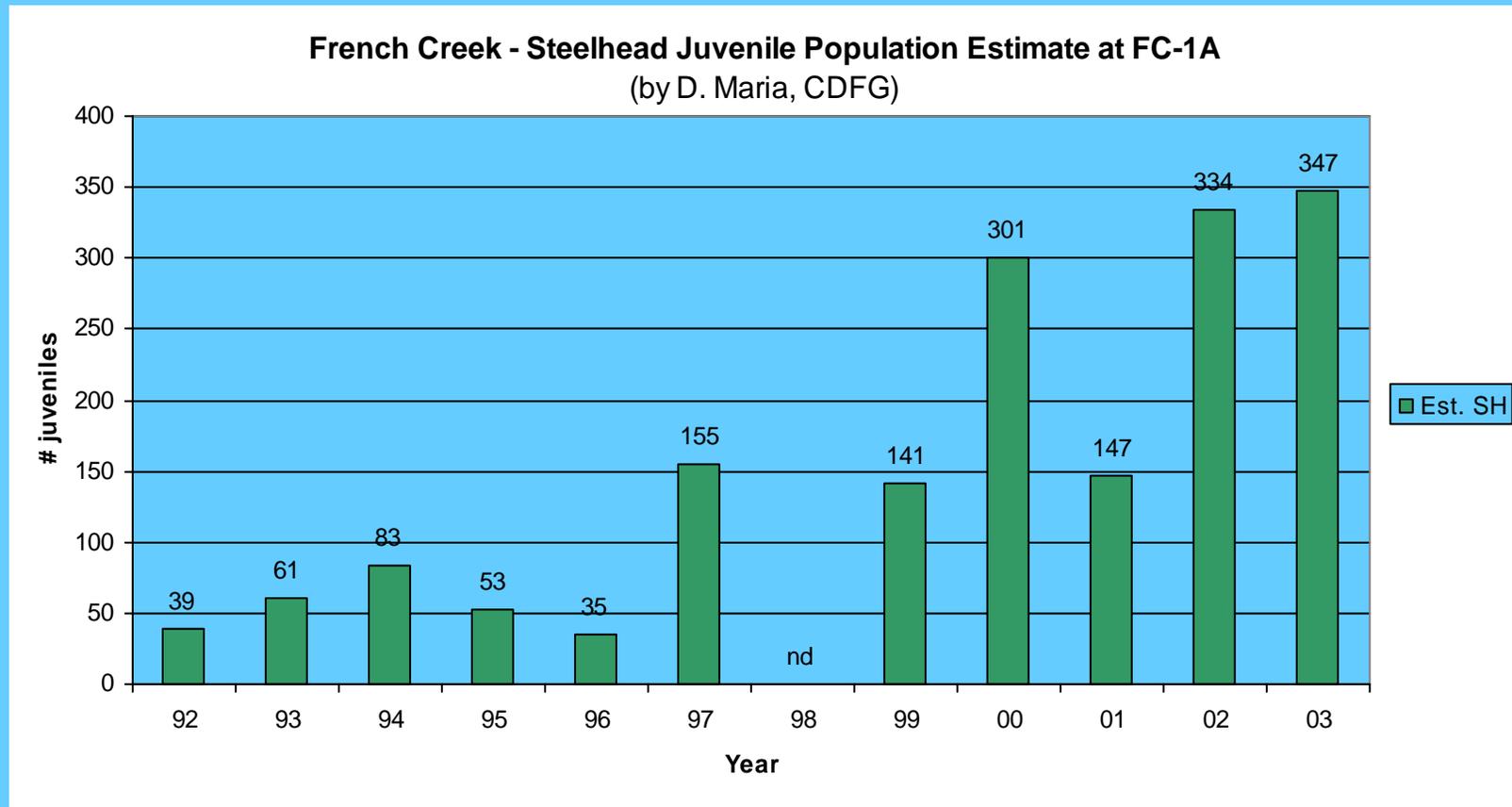
1. Determine changes in sediment levels in salmonid habitat.
2. Determine fish pop. changes & possible causes.
3. Detect sources of DG – natural & mgt.
4. Evaluate Road Mgt. Plan's effectiveness.

Fish Monitoring

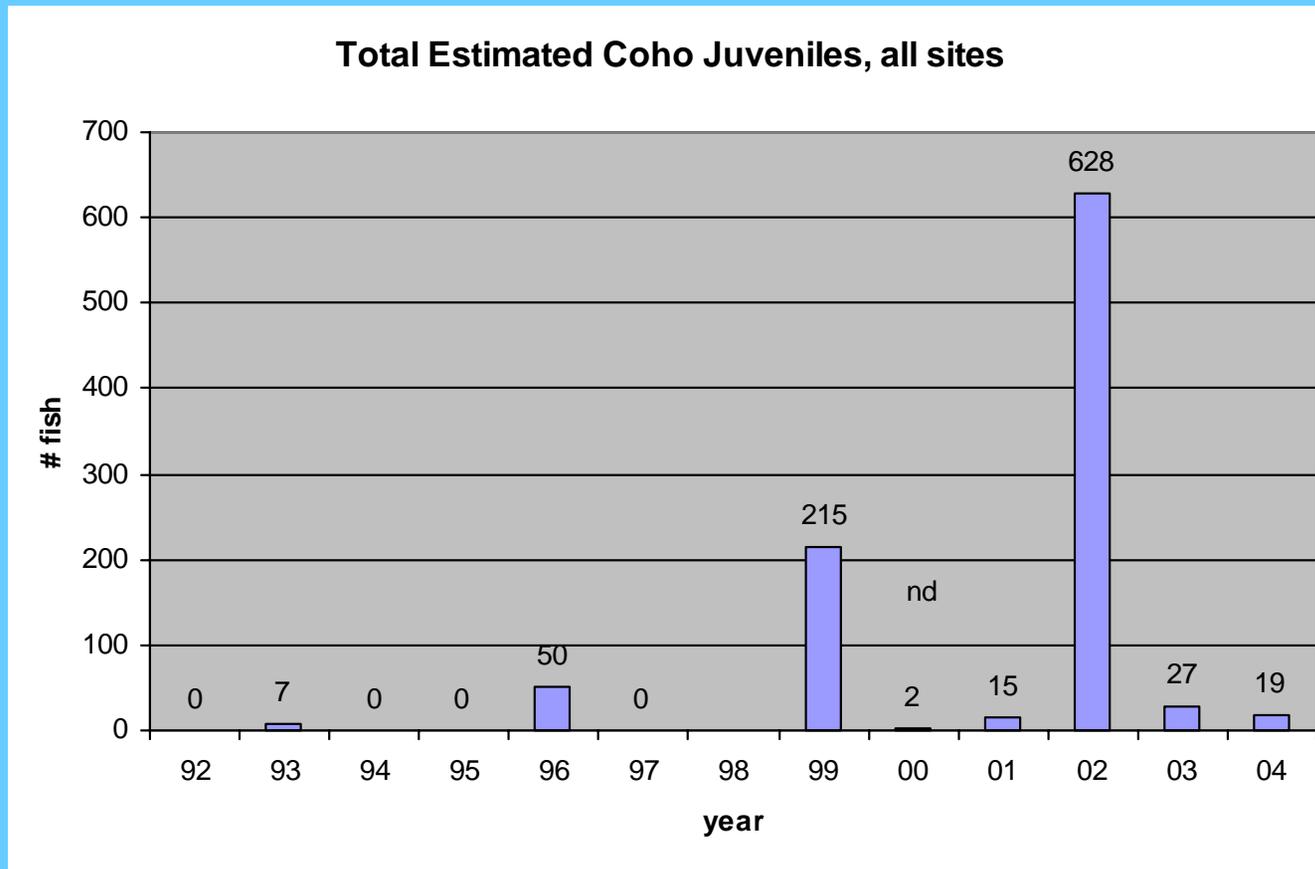
- Juvenile Steelhead – number, size, density
- Six sites in different reaches & tribs
- Electrofish pools, riffles, runs / reach
- CDFG took lead
- Juvenile coho added



Fish Results - Steelhead



Fish Results – Coho (!)

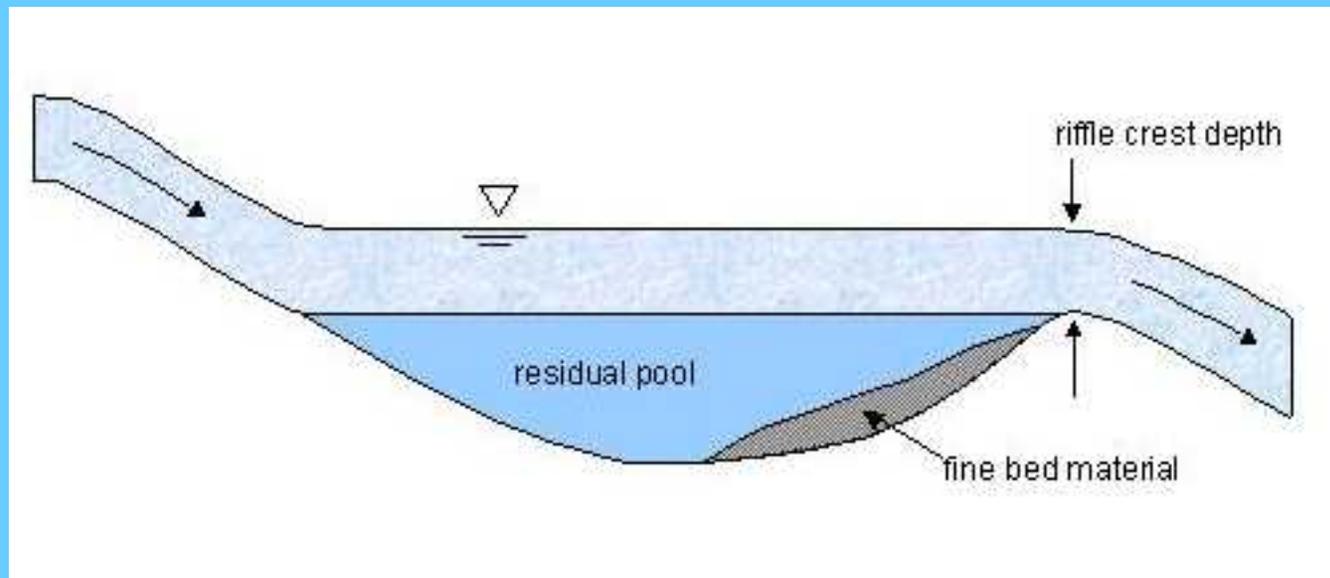


Sediment Monitoring – V^* star



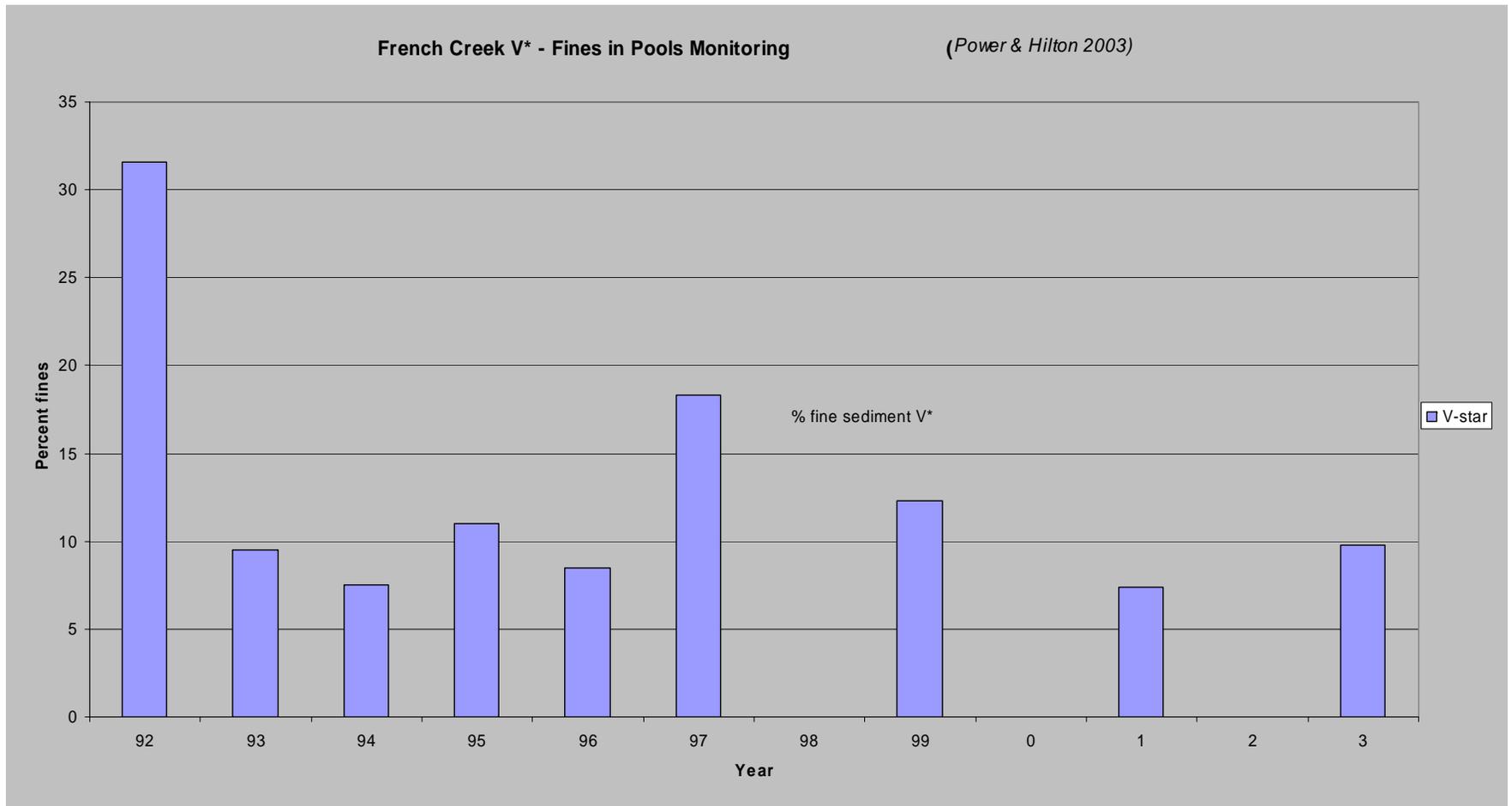
- Relative volume of fine sediment in **pools**
- Lisle & Hilton method (1991-92)
- 12 pools per reach
- USFS took lead, with Redwood Sciences Lab (Arcata) crews

V-star Method



Sediment Results – V*

1992-2003

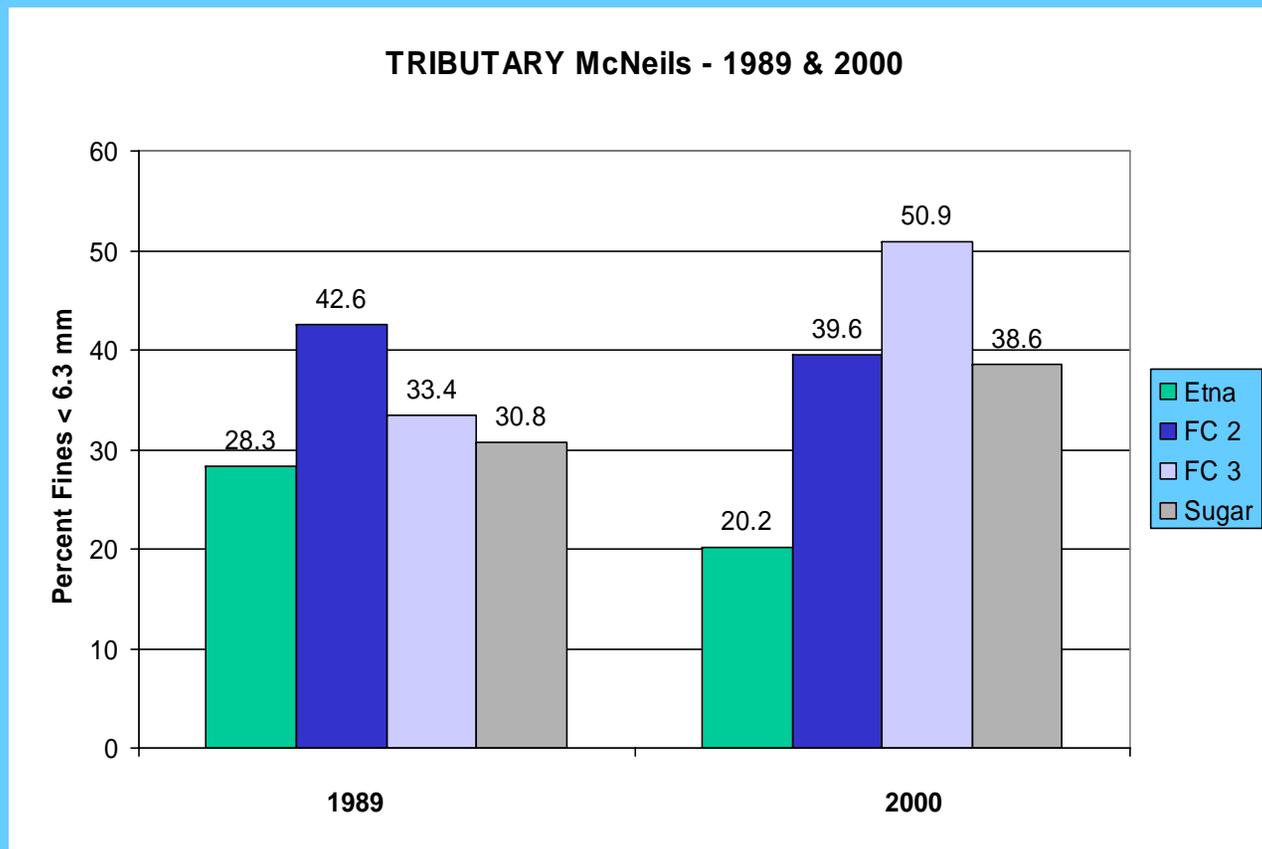


Sediment Monitoring - McNeil

- Measures relative amount of fine sediment in **spawning gravels**
- 2 reaches
- 1989 "baseline"
- RWQCB took lead / RCD in 2000

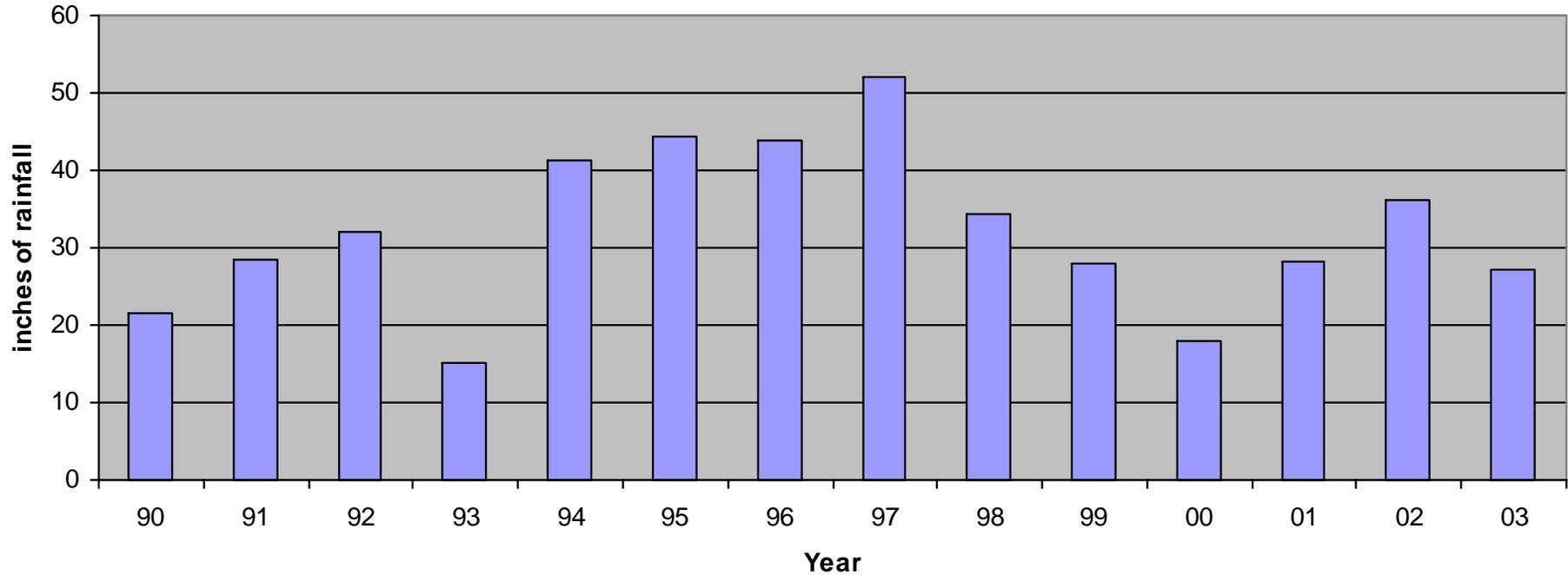


Sediment Results – McNeils Spawning Gravel Quality 1989 & 2000



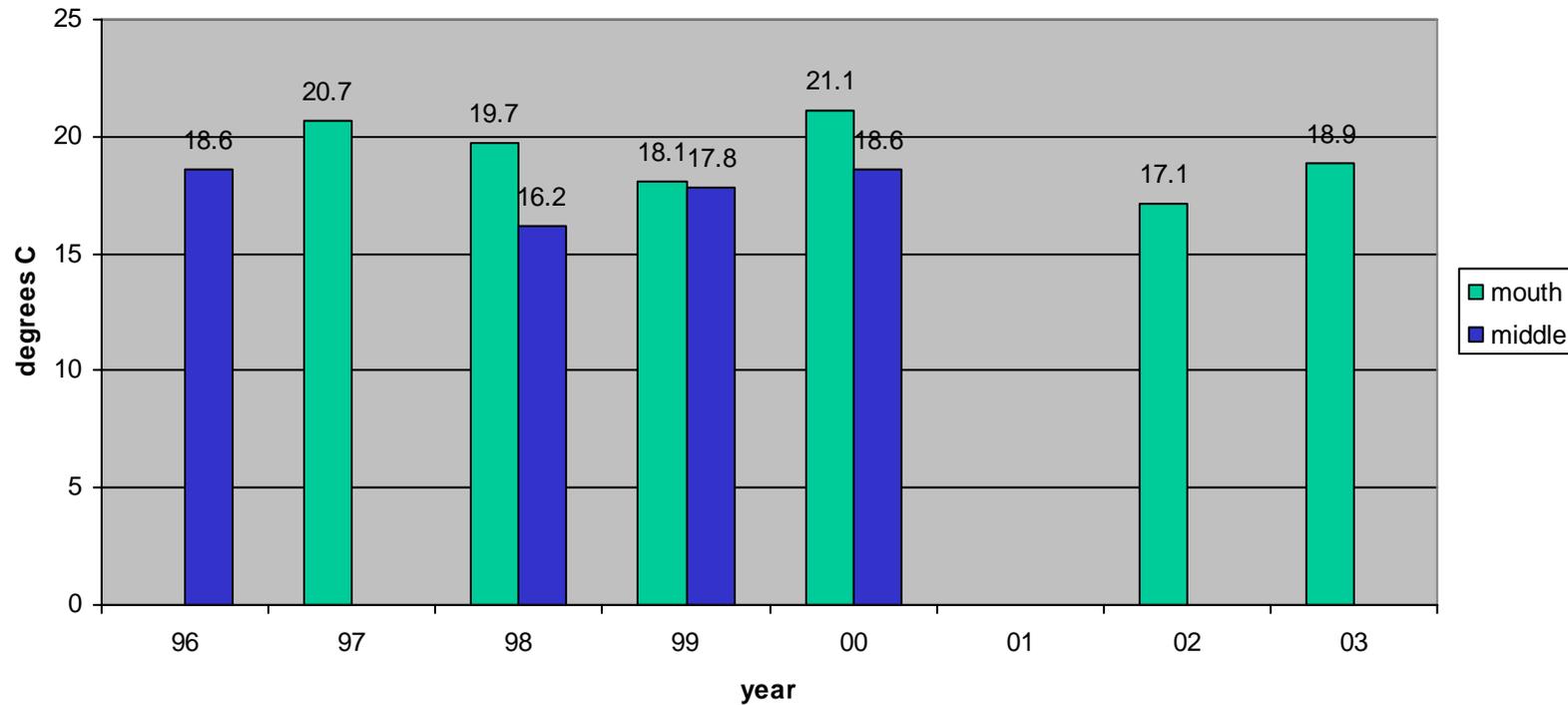
Precipitation – French Creek

7/90 to 7/04



Temperature- MWAT

Temperature - MWAT - French Creek



Lessons Learned

- Use Joint Fact-Finding in your monitoring program:
 - Develops mutual trust
 - Improves understanding of data among all players
 - Makes data collection more fun!

Lessons Learned - by Sari

- Meet at least annually to share data
- Write the data up! Do the analysis! Get reports that can be cited.
- Keep doing field trips together
- Try to be consistent with data sites, but
- Be flexible as conditions and methods change

Benefits of WAG Program

- Fostered a collaborative approach (& satisfied CDF goal)
- Won the 1996 National Watershed Award for voluntary efforts!
- Meeting our Goal of sediment reduction

Benefits of Program -2

- Best long-term data set for Sediment & Steelhead & Coho in Scott, and most of Klamath basin
- Regional Water Bd. cites WAG efforts as example of success in sediment reduction

Benefits



PRIDE!