



Results of a Statewide Survey of California's Ranch Water Quality Planning Short Course

*Stephanie Larson, Kelly Smith, Mel George Ph.D.,
Holly George, David Lewis and John Harper*

UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION
DAVIS, CALIFORNIA



Ranch Water Quality Planning Short Course

A horizontal band of light purple background with several dark purple, wavy, brush-stroke-like lines of varying lengths and curves, creating a textured, water-like effect.

- ✓ Developed by University of California Cooperative Extension & Natural Resource Conservation Service in 1995
 - ✓ Addressed water quality issues on rangelands
 - ✓ Self-determined compliance
 - ✓ Livestock & dairy owners and operators
- 
- A single, dark purple, wavy line that spans the width of the slide, mirroring the style of the lines in the header band.

Ranch Water Quality Planning Short Course

Involved -

- ☞ Four to six sessions
- ☞ Field site visits
- ☞ Letter of intent
- ☞ Written plan

Written Ranch Water Quality Plan

Contains 8 Sections:

- ☛ Introduction
- ☛ Goals- *Quality of Life; Production; Natural Resources*
- ☛ Property location & description – *property facilities & resources*
- ☛ Enterprise descriptions
- ☛ Current ranch management practices
- ☛ Water quality assessment
- ☛ Planned management practices
- ☛ Monitoring program

**California Counties Participating in
Ranch Water Quality Planning
Short Courses 1995-2002**



Statewide Survey to Evaluate

- Management practice implementation
- Reasons for implementation - *document behavioral changes made after attending course*
- Financial contributions to water quality management
- Impacts beyond 1.2 million acres

**University of California Cooperative Extension State Survey of
Ranch Water Quality Planning Short Course**

This survey is for those who have completed the Ranch Water Quality Planning Short Course (RWQPSC). The objective of this survey is to find out if the course has been useful, and make the course more helpful to landowners in the future. Your response is an important source of feedback for us. We appreciate your taking the time to complete the following.

Directions:

✓ Check the box (es) that apply

✓ If you do not want to answer a question, please skip and go to the next.

1. Are you responsible for the management of private land (check one)?

☐ No

☐ Yes

a. If yes, about many acres are under your management (check one)?

☐ 499 acres or less

☐ 500 acres – 999 acres

☐ 1,000 acres – 2,499 acres

☐ 2,500 acres – 4,999 acres

☐ 5,000 acres – 9,999 acres

☐ 10,000 acres – 14,999 acres

☐ 15,000 acres – 19,999 acres

☐ 20,000 acres – 29,999 acres

☐ 30,000 acres – 49,999 acres

☐ 50,000 acres or more

2. Are you responsible for management decisions on public grazing lands?

☐ No

☐ Yes

a. If Yes, about many acres are under your management (check one)?

☐ 499 acres or less

☐ 500 acres – 999 acres

☐ 1,000 acres – 2,499 acres

☐ 2,500 acres – 4,999 acres

☐ 5,000 acres – 9,999 acres

☐ 10,000 acres – 14,999 acres

☐ 15,000 acres – 19,999 acres

☐ 20,000 acres – 29,999 acres

☐ 30,000 acres – 49,999 acres

☐ 50,000 acres or more

3. What type of livestock do you manage (check all that apply)?

☐ Cattle

☐ Sheep

☐ Horses

☐ Dairy

☐ Poultry

☐ Do not manage livestock

☐ Other _____

Ranch Water Quality Planning Short Course Survey

*Social survey developed with
Lynn Huntsinger, Ph.D., UC Berkeley*

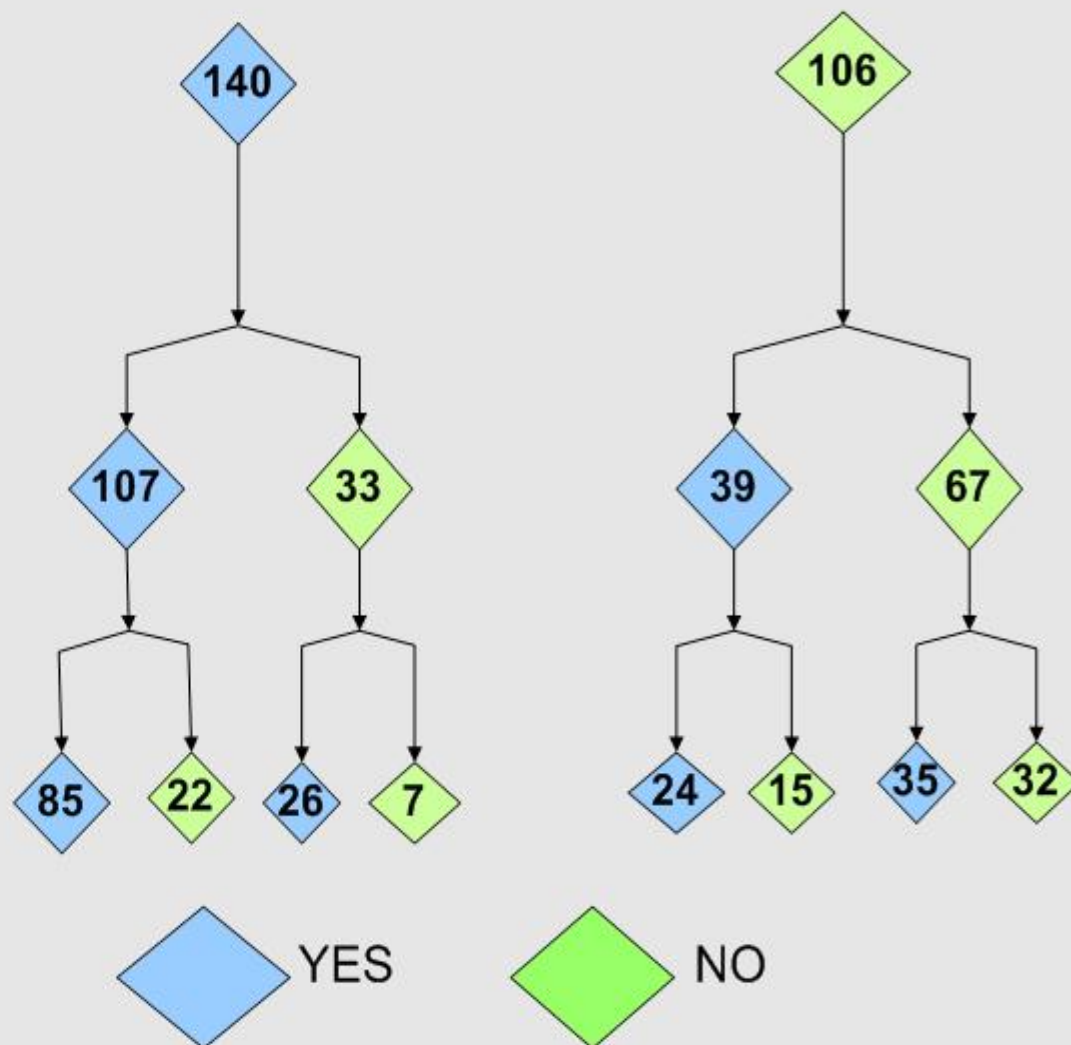
- ✓ 753 surveys mailed 8/02-10/02
- ✓ Reminder card mailed 12/02
- ✓ 35% return rate
- ✓ Results reported as percentages

LEVEL OF PLAN COMPLETION AND OUTCOMES

**RANCH PLAN
COMPLETED**

**COMPLETED WATER
QUALITY SELF
ASSESSMENT**

**IMPLEMENTED
MANAGEMENT
PRACTICES**



Outcomes of the Ranch Water Quality Planning Short Course

- ✓ Ranch Plan completed = 57%
 - ✓ *Practices implemented: 70 %*
- ✓ Ranch Plan not completed = 43%
 - ✓ *Practices implemented: 40%*
- ✓ Definition of completion?
- ✓ What are the regulatory implications?

Water Quality Assessment

59% Completed An Assessment

Types of Nonpoint Source Pollution

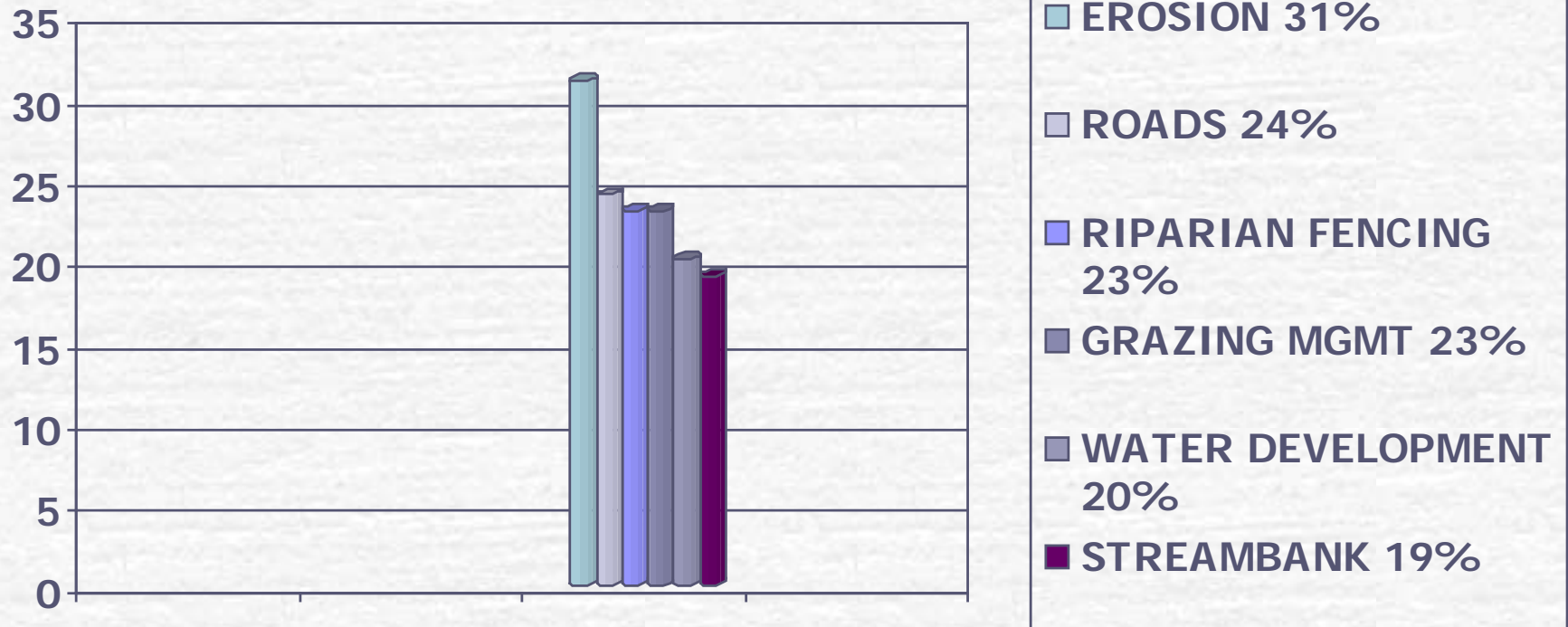
- ▮ 58% Sediment
- ▮ 26% Stream/riparian health
- ▮ 17% Nutrients
- ▮ 8% Pathogens
- ▮ 8% High temperatures

Self Assessment Field Site Visits



Management Practices Implemented

70% Implemented Practices



Other Management Practices

- ☛ Fencing
- ☛ Seeding & fertilizing
- ☛ Animal crossings
- ☛ Loafing barns
- ☛ Berms/ditches



SUMMARY

- ☞ Short Course increased awareness of water quality issues
- ☞ Helped improve overall quality of land/water = 60%
- ☞ Changed Behavior - or not?
 - *70% Implemented practices*
 - *13% Attended course only*

Next Steps

- ☛ Statistically analyze survey data
- ☛ Regional differences
- ☛ Impacts from regulations
- ☛ Measure behavioral changes
- ☛ Improvements made on a watershed basis
- ☛ Impacts of monitoring

