

State of the Bay 2010

A Conference about Tomales Bay and its Watershed



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Friday, October 22 and Saturday October 23, 2010

presented by the Tomales Bay Watershed Council



Conference web-page - <http://www.tomalesbaywatershed.org/stateofthebay2010.shtml>

Abstract:

Marin Farmers and Ranchers Conserving the Tomales Bay Watershed

By Mr. David Lewis, Director, Univ. of California Cooperative Extension Marin &

Ms. Nancy Scolari, Executive Director, Marin Resource Conservation District

Agricultural producers in the Tomales Bay watershed have a long history of implementing conservation practices for the protection of natural resources. This presentation provides a glance at the efforts by farmers and ranchers in protecting the resources they rely upon to maintain viable agricultural operations for future generations. Since the 1970s and the passage of the Clean Water Act producer participation in conservation projects has dramatically increased. Over 3,000 projects have been completed including streambank and gully repairs, filter strips, riparian fencing, native plantings and road repairs. These projects were preceded by extensive watershed studies and planning efforts conducted in the 80s and 90s. Most recently, water quality monitoring and studies conducted by the University of California Cooperative Extension Service have enabled producers and agricultural resource agencies to focus on the implementation of specific management practices and have demonstrated water quality improvements. Over 574 cubic yards of sediment at 284 sites have been prevented from entering waterways and 133,554 feet of stream have been revegetated. Agricultural producers will work toward future watershed improvements based upon planning documents, monitoring efforts and adaptive management.

Complete proceedings, individual presentations, and links to video from the 2010 State of the Bay Conference are available on the Tomales Bay Watershed Council's website:

<http://www.tomalesbaywatershed.org/stateofthebay2010.shtml>

Speaker Biographies:

David Lewis is Director of University of California Cooperative Extension Marin County and Watershed Management Advisor focusing on watershed management in Sonoma, Marin, and Mendocino Counties. In this position, he directs all research and extension programs in Marin County and develops and implements projects that integrate resource conservation with land use management across all three counties. He works with agriculture and natural resource managers to improve water quality and watershed functions through research and education. His training and background are in geology, as well as water quality and quantity in California oak woodlands. Prior to this work, David was a consulting environmental geologist for a private California consulting firm and a program development and training specialist for the US Peace Corps in Albania, Niger, and Zimbabwe.

Nancy Scolari is the Executive Director of the Marin Resource Conservation District (Marin RCD). Nancy received a B.A. in Environmental Studies and Planning at Sonoma State University before enlisting in the U.S. Department of Agriculture's AmeriCorps National Service Program. It was during this time she assisted landowners with the development, implementation, and monitoring of their ranch conservation plans. She then went on to work for the Southern Sonoma RCD, assisting in the development and implementation of the Stemple and Sonoma Creek Watershed Enhancement Plans. She has been with the Marin RCD for eleven years, during which time she has facilitated the implementation of the Marin Coastal Permit Coordination Program which has resulted in the construction of over 127 on-the-ground conservation practices.

Marin Farmers and Ranchers Conserving the Tomales Bay Watershed

The State of the Bay Conference
October 23, 2010

Nancy Scolari, Marin Resource Conservation District
David Lewis, UC Cooperative Extension - Marin

History



1970s



- Federal Water Pollution Control Amendments of 1972,
- Clean Water Act of 1977
- Dairies begin to install waste ponds with County help
- Water is trucked from Mendocino during the drought

1970s



1980s



- 1980s - RCD becomes active in erosion control through grants:
- Lagunitas Watershed Erosion Control Program
 - Stafford Lake Erosion Control Program
 - Walker Creek Watershed Enhancement Program



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1980s



Planning and Assessments

1990s -Rancher/Landowner Groups



Dairies under the spotlight -Animal Waste
Committee begins water monitoring
Watershed Groups form

-Watershed Planning begins



Stemple Creek Watershed Enhancement Plan
(Stemple Creek TMDL approved 1997)

Walker Creek Watershed Enhancement Plan

Marin Coastal Watersheds Enhancement Program

-Watershed Assessments Completed

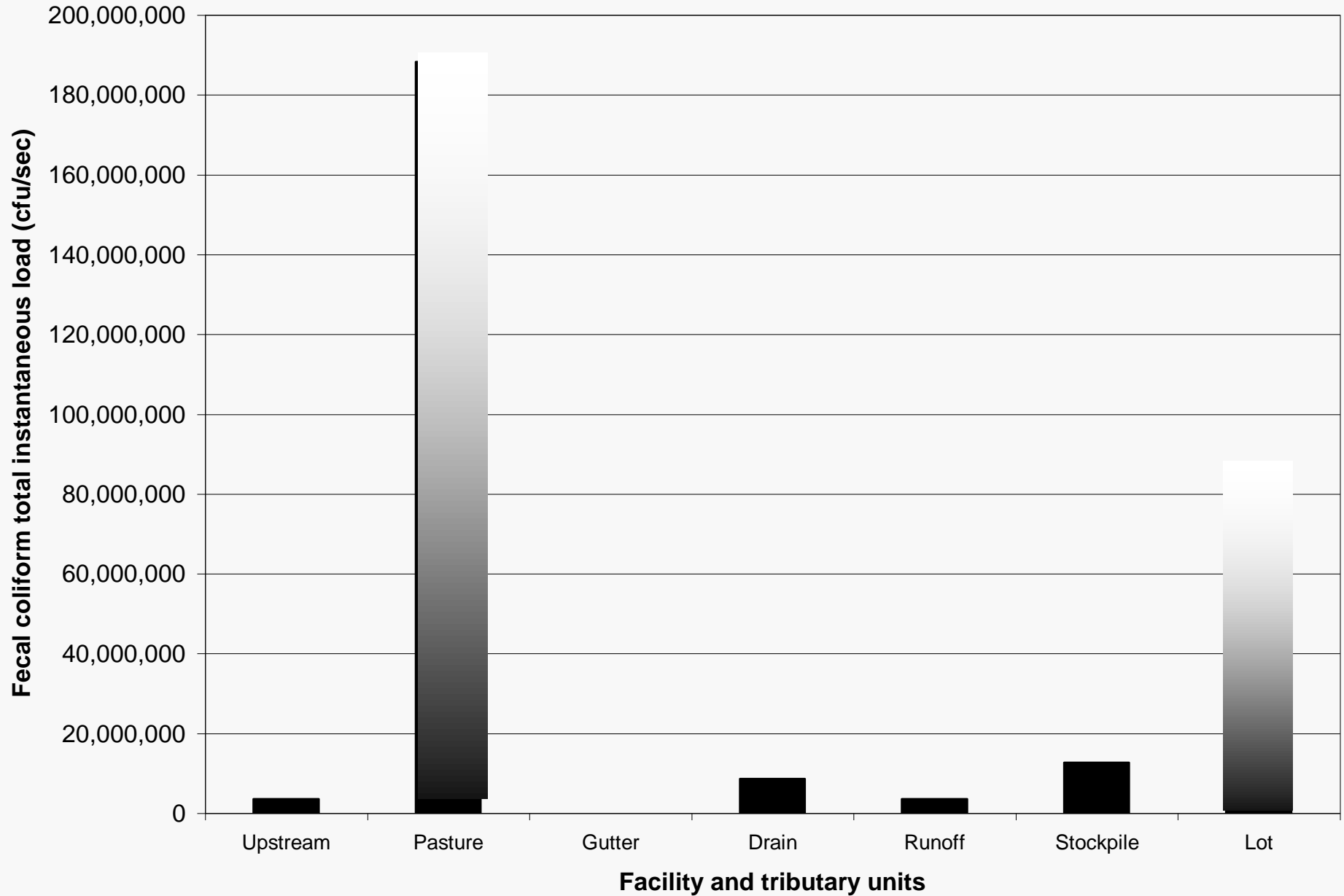


San Geronimo Bedload Reduction

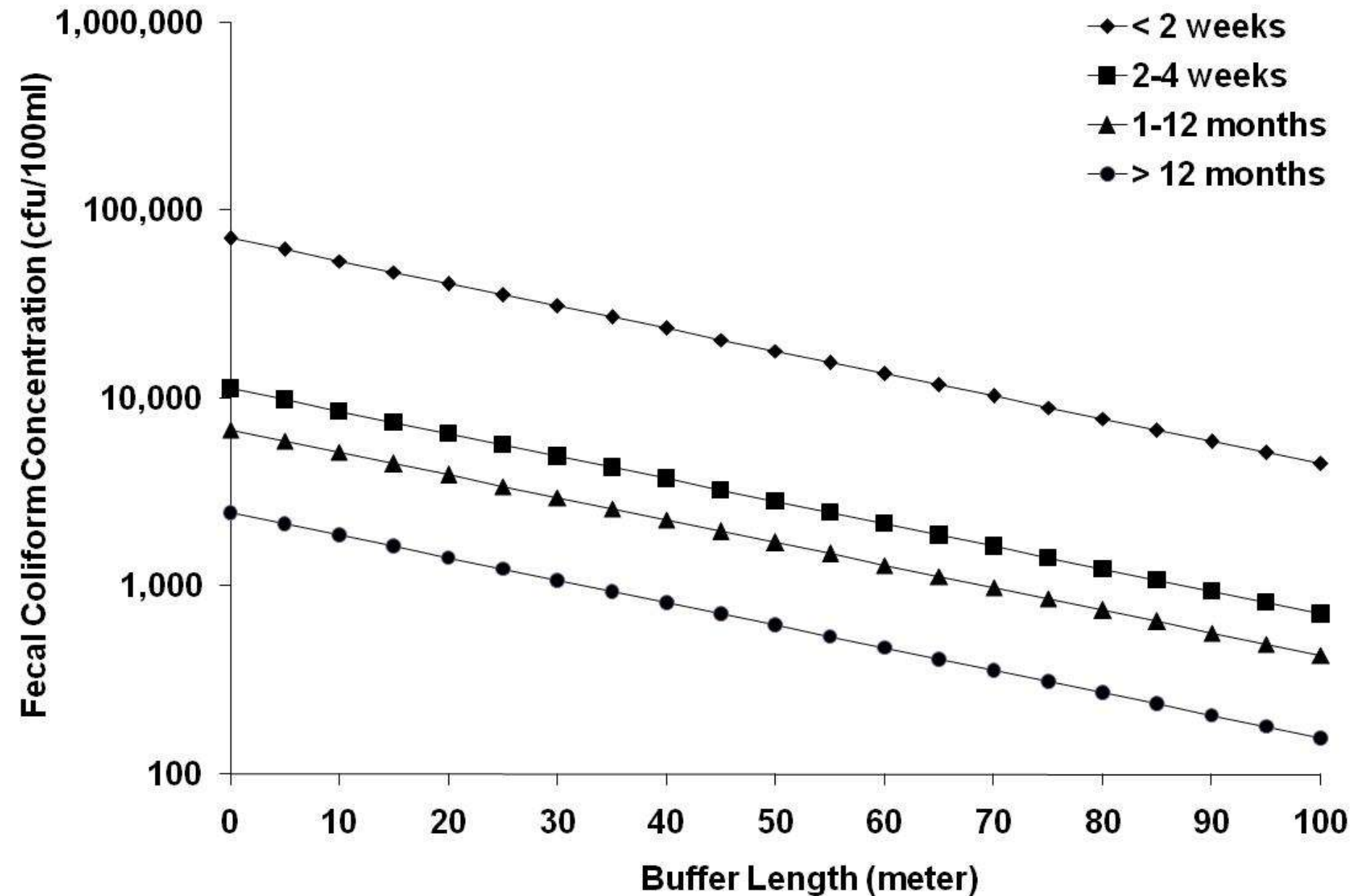
Stemple Creek Nonpoint Source Reduction

Various vegetation and stream surveys

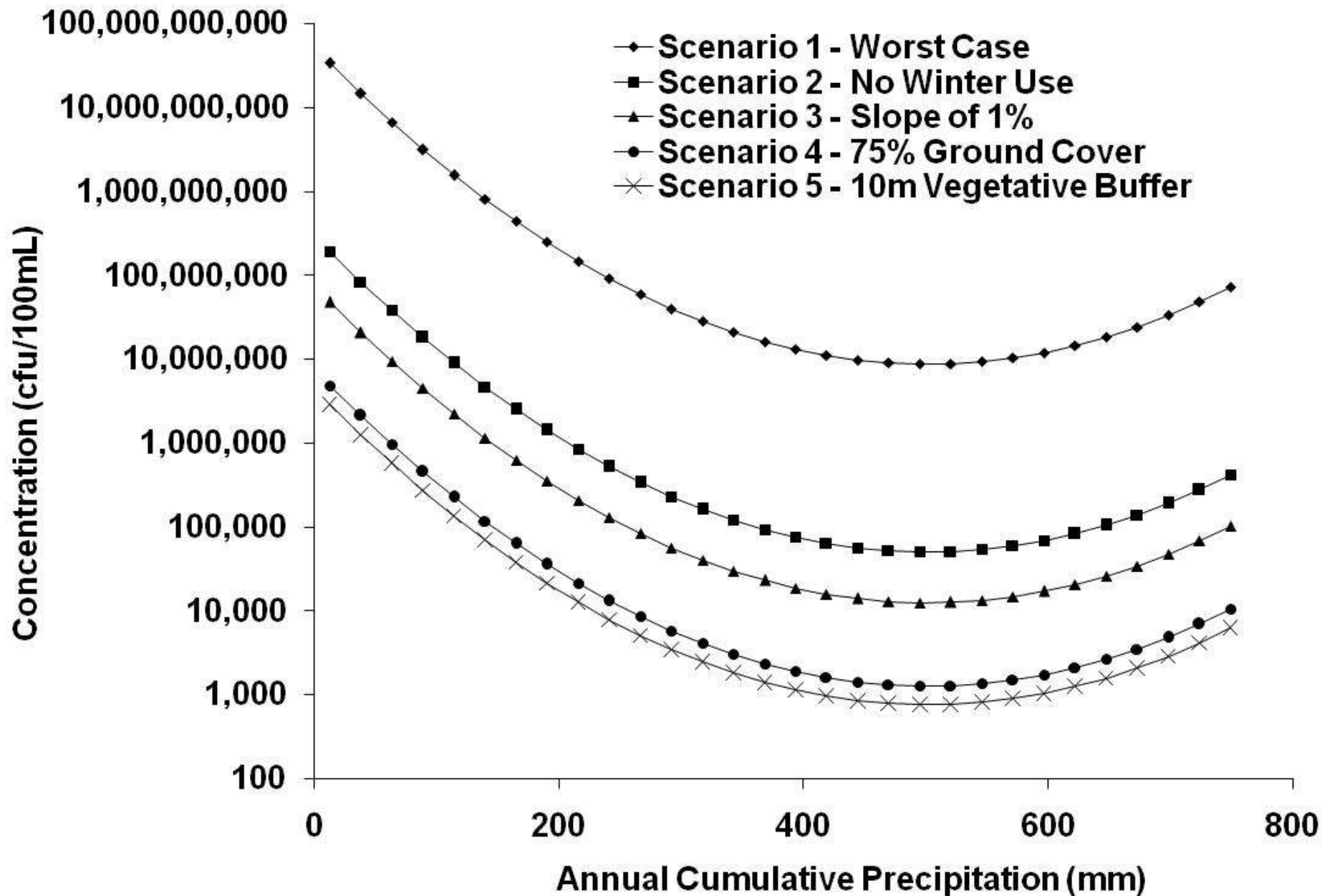
Fecal coliform load in storm run-off



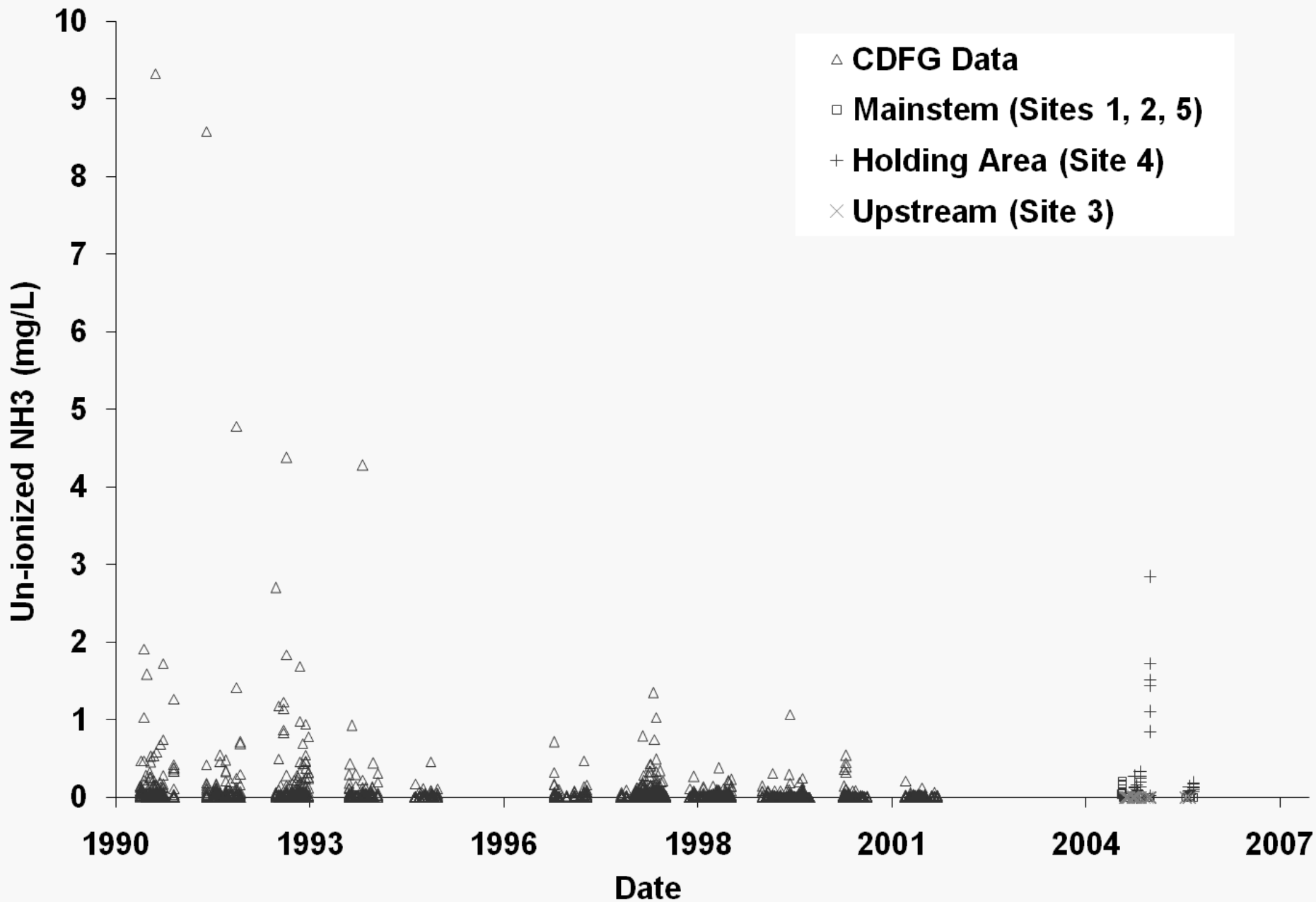
Pasture runoff improvement



Lot runoff improvement



Un-ionized Ammonia



Implementation

1990s -Implementation to follow up on plans



Implementation

1990s -Implementation to follow up on plans



Planning

- 2000
- Planning on a Larger Scale
 - Tomales Bay Watershed Stewardship Plan
 - Tomales Bay Agricultural Group forms
 - Marin Coastal Permit Coordination Program
 - Tomales Bay Pathogen TMDL is approved
 - Calls for implementation of management measures including Conditional Waiver for Grazing Lands
 - 250 parcels are affected
 - Notices of Intent to Comply,
 - Ranch Plans
 - Monitoring, Annual Certifications
 - Workshops, Ranch Plan Models, Templates, Site visits to be conducted

Grazing Waiver Implementation

Of the 424 notifications sent

- 187 Notices of Non-Applicability
- 45 No Response
- 201 Notices of Intent, & 167 Annual Certifications
- Ranch Plan and Annual Certification Templates

Conditional Waiver Compliance

- Marin Resource Conservation District
- Natural Resources Conservation Service
- Marin Agricultural Land Trust
- Marin County Farm Bureau
- Western United Dairyman
- California Cattlemen's Association
- Point Reyes National Seashore
- Regional Water Quality Control Board
- University of California Cooperative Extension



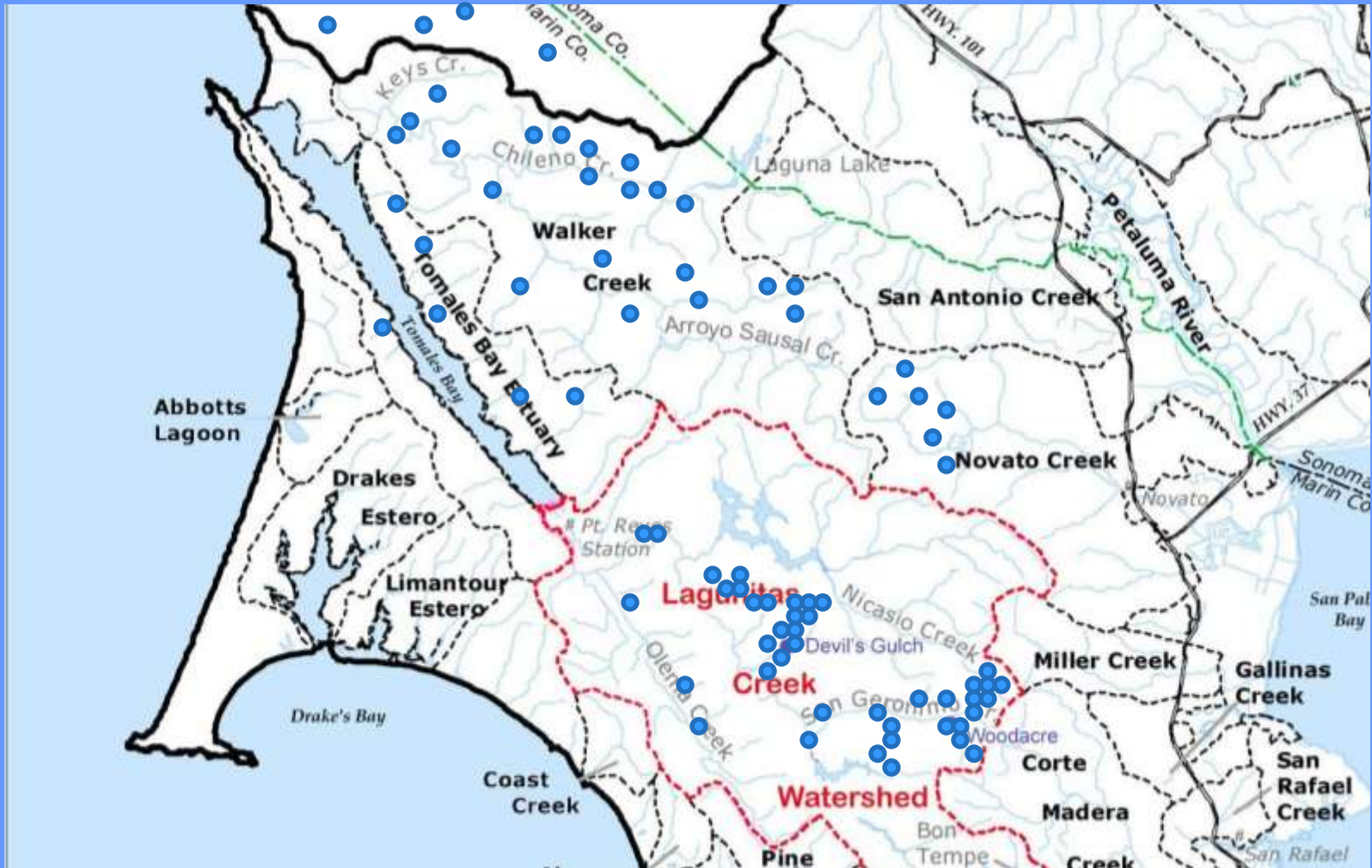
Implementation



Implementation



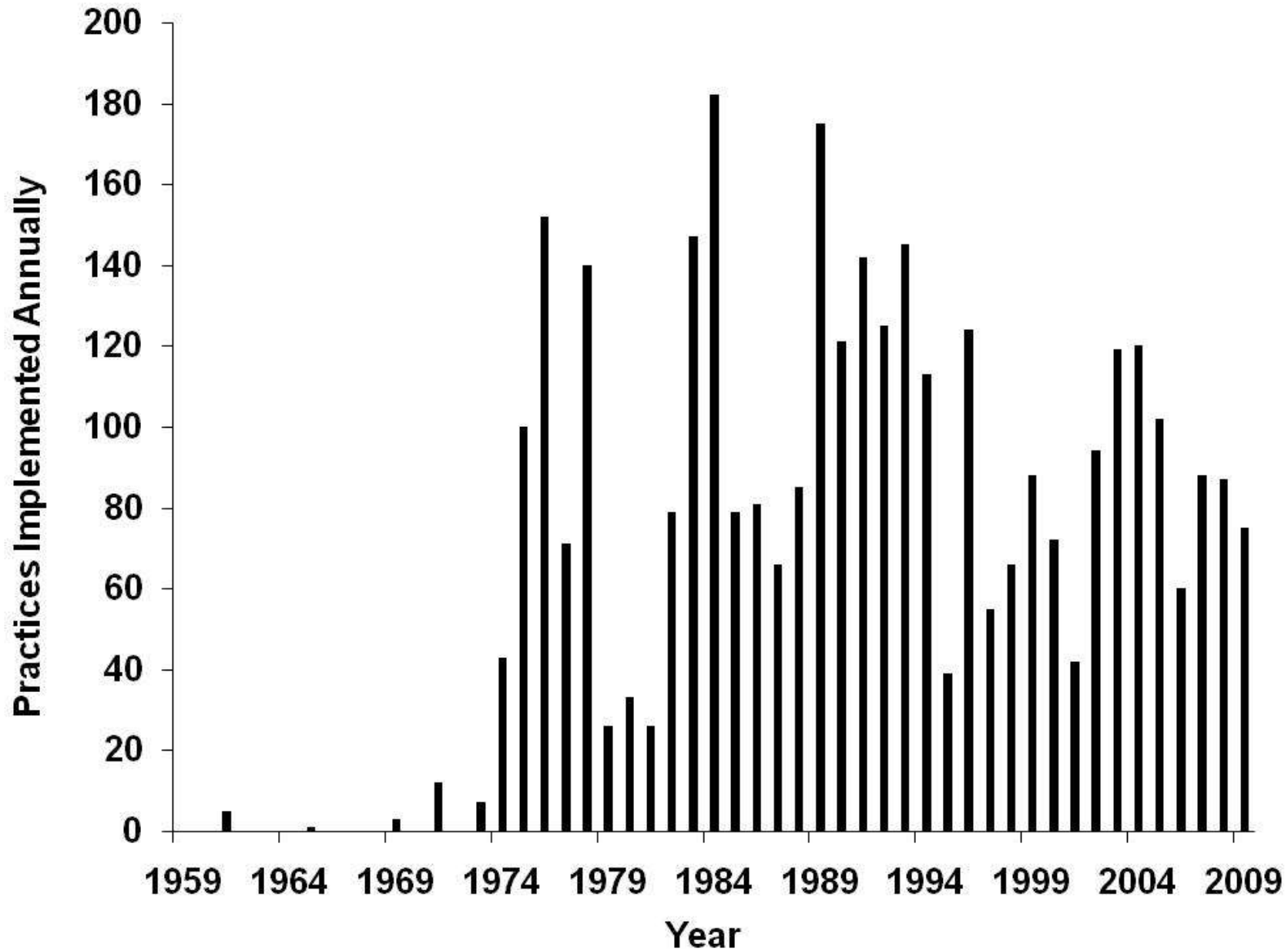
Map of Projects



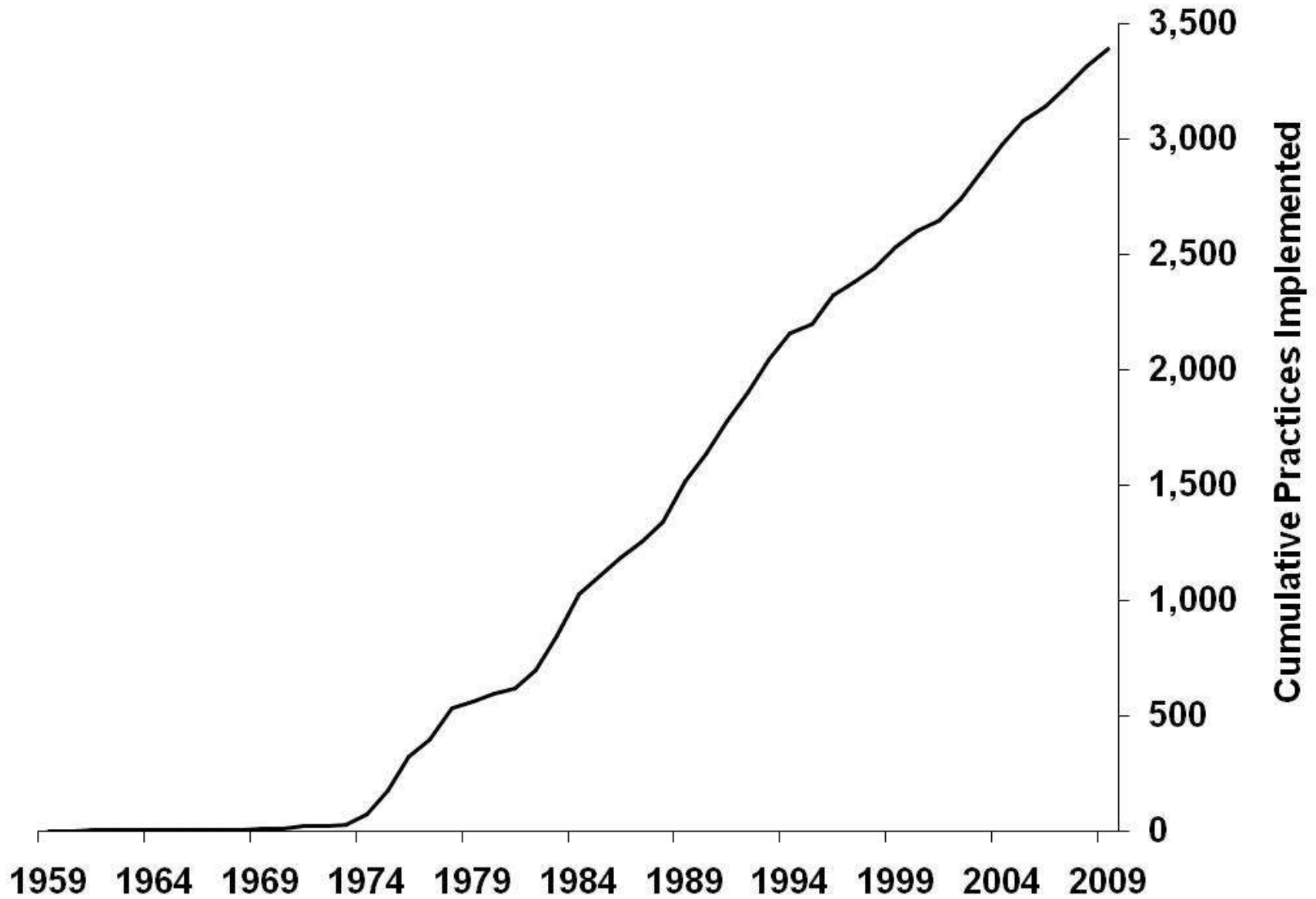
Over 75 Projects with RCD,

Over 350 Conservation practices completed with RCD

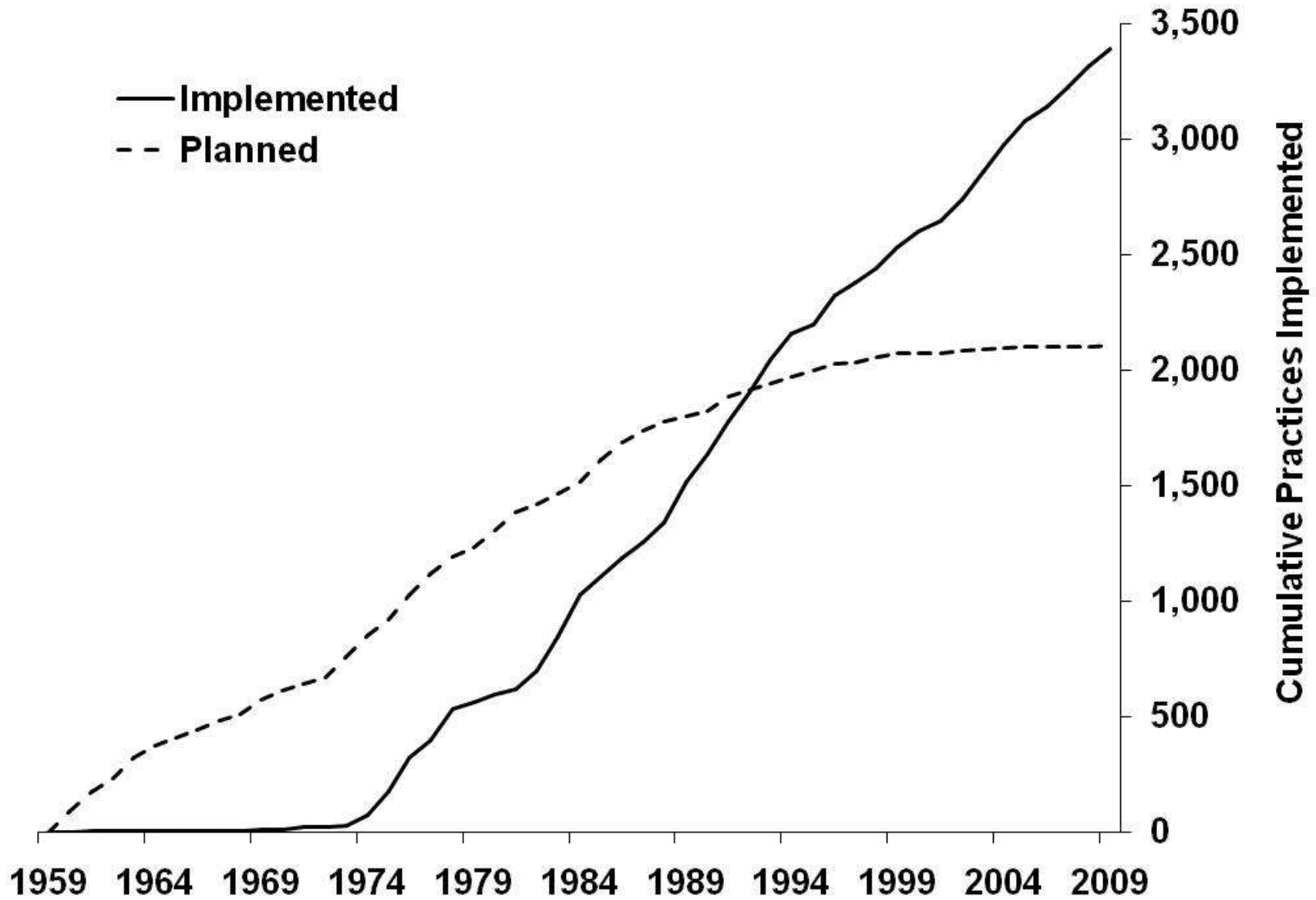
Practices Implemented Annually



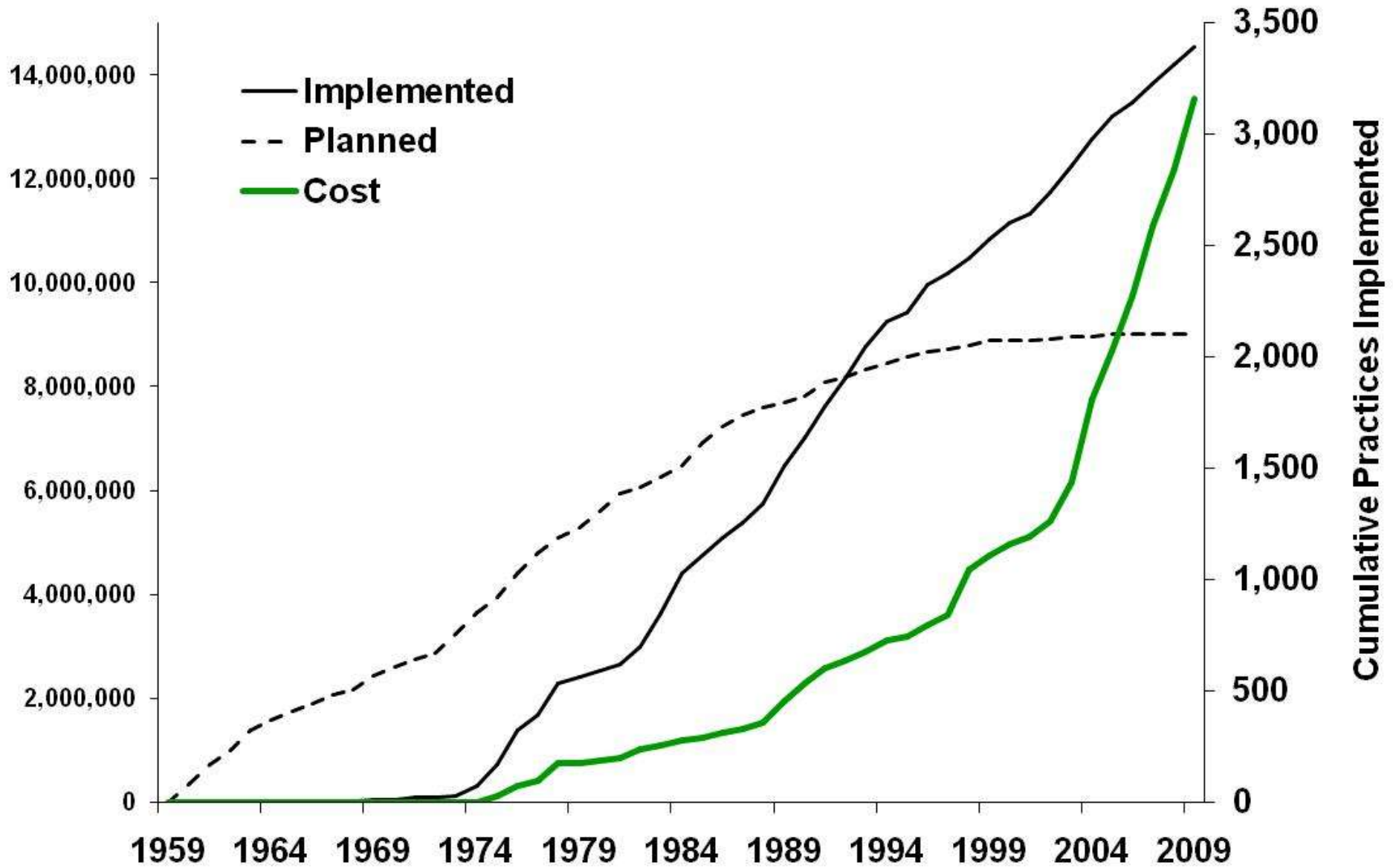
Cumulative Practices Implemented



Cumulative Practices Implemented

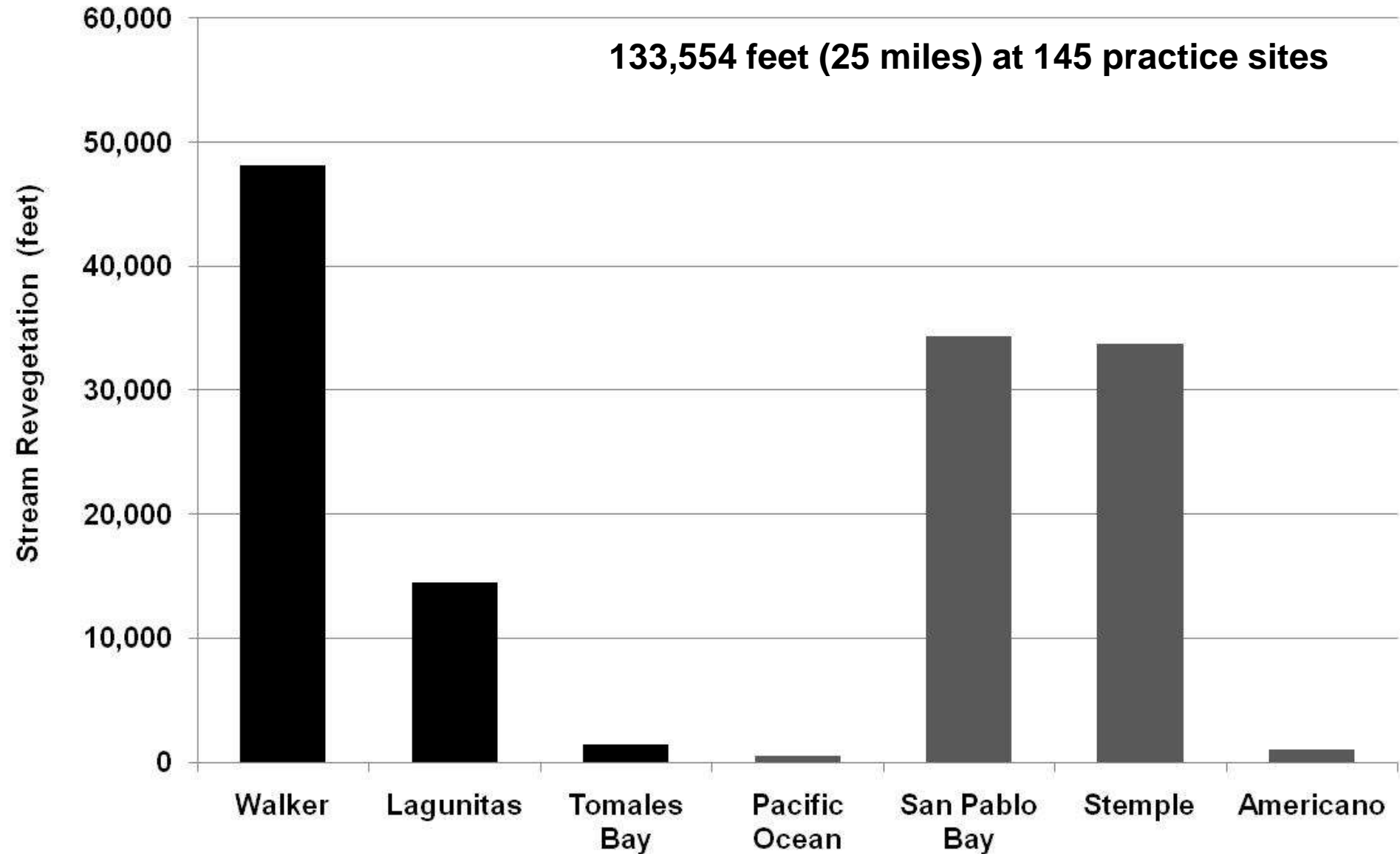


Cumulative Practices Implemented

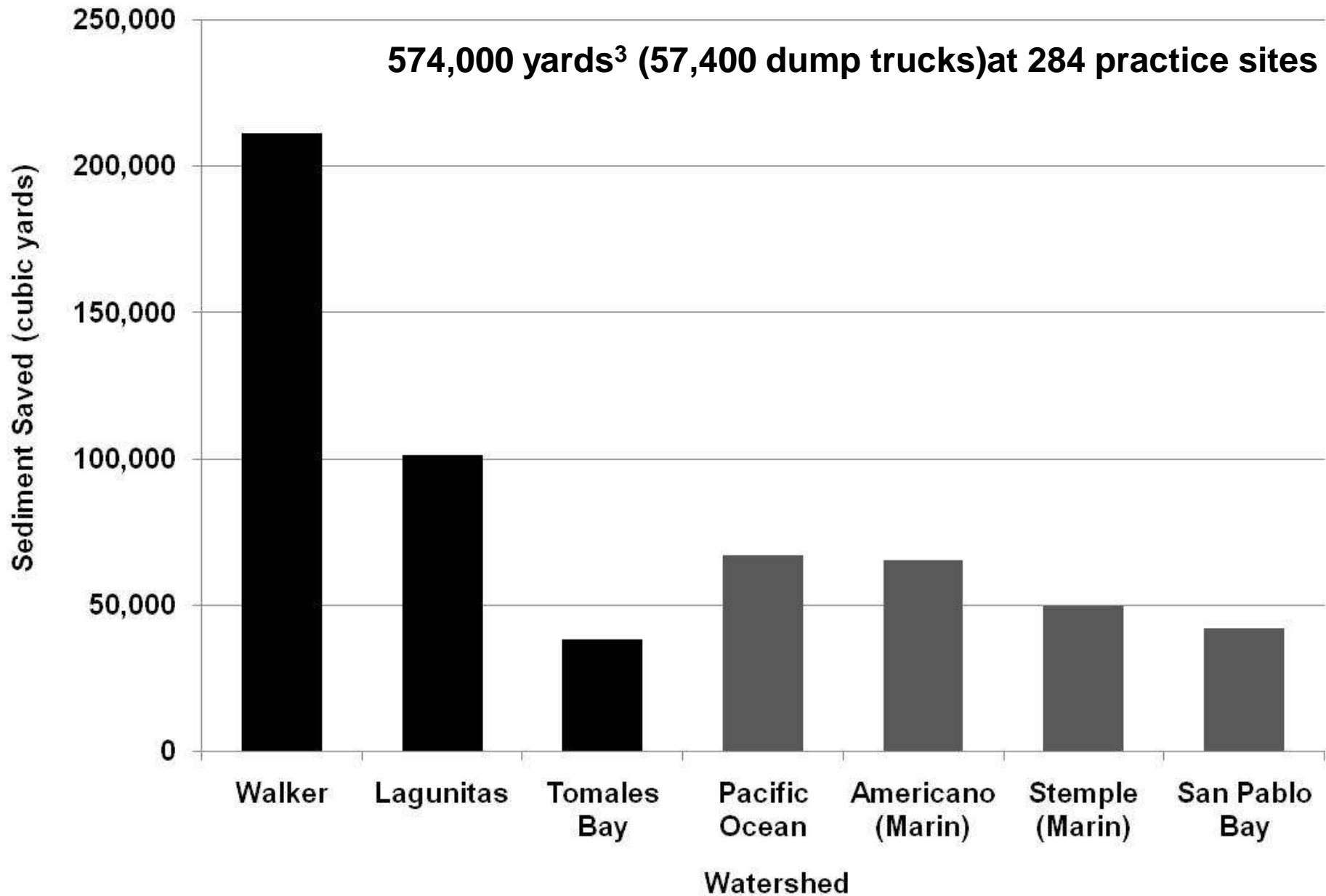


Stream Revegetation

133,554 feet (25 miles) at 145 practice sites

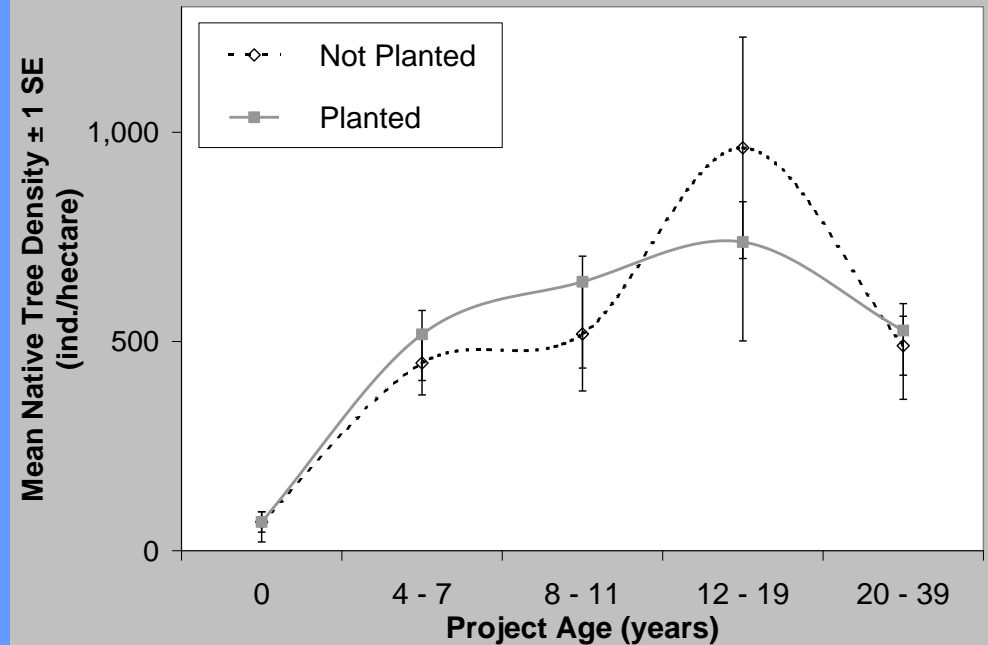


Sediment Saved



Project Outcomes

- No effect on native tree density from planting
- # of native tree species was greater where planting occurred



Monitoring and Adaptive Management



Riparian Zone Monitoring Plan

- Landowner surveys
- Vegetation surveys
- Stream shade
- Bird and fish counts

Monitoring and Adaptive Management



Riparian Zone Monitoring Plan

- Construction Inspections
- Photo documentation
- Transects and surveys
- Sediment load estimates

How are projects selected and completed?



November

Landowner applies for funding and opts for coverage.

December-January

Project is evaluated and ranked (NRCS technician/RCD Advisory Group).

February

Project is approved by RCD Board for design services.

March

Project is approved by RCD Board into permit program.

How are projects selected and completed?



October

November-March

Thereafter

Project is constructed

Plants are installed by STRAW

Pt Reyes Bird Observatory Conservation Science

UC Cooperative Extension Service

STRAW

Landowner

How does the work get done?



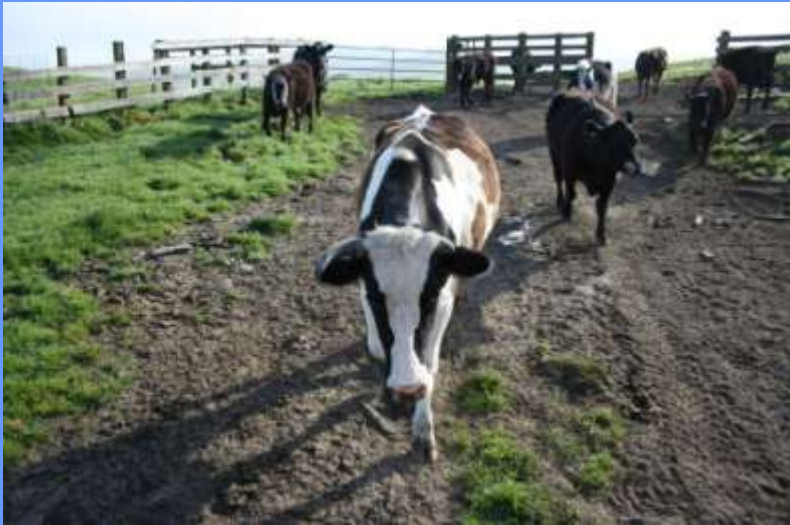
- UC Cooperative Extension – Marin
- USDA Natural Resources Conservation Service
- Marin Agricultural Land Trust
- Marin Resource Conservation District
- Bay Institute's Students and Teachers Restoring a Watershed (STRAW)
- Point Reyes National Seashore
- Sonoma Marin Animal Resource Committee

And Many Funders



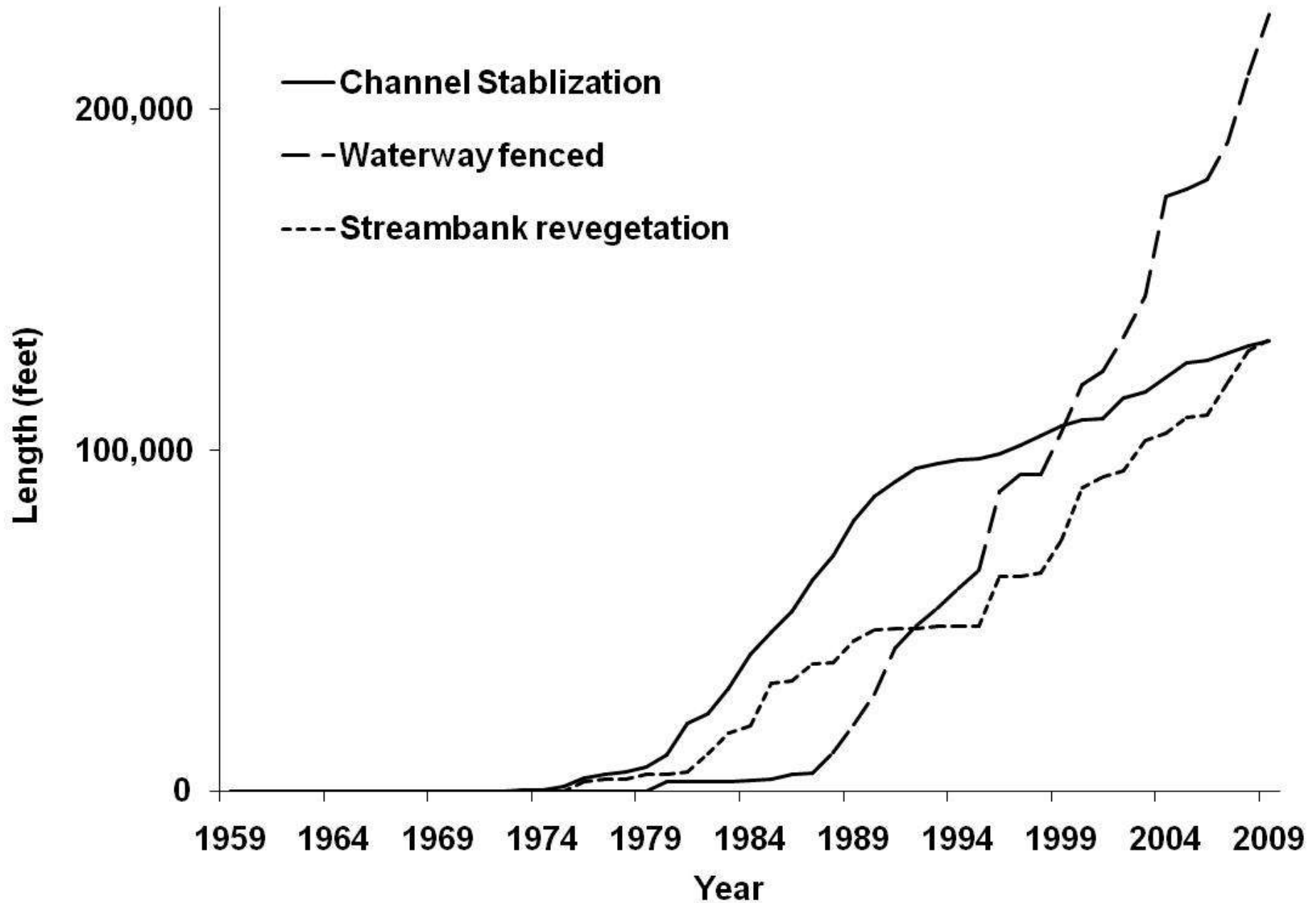
- Ranchers (cost share 25/75)
- State Coastal Conservancy
- Marin Community Foundation
- US Fish and Wildlife Foundation
- USDA Natural Resources Conservation Service
- CA Dept of Fish and Game
- State Water Resources Control Board
- American Recovery and Reinvestment Act
- County of Marin and many more...

What's in store for us?



- Compliance with Grazing Waiver
 - UCCE, MALT, PRNS assistance to ranching community
 - RCD, NRCS Implementation of projects outlined in ranch plans
- Marin Carbon Project
 - Measuring carbon sequestration potential on rangelands
 - Creek Carbon proposal
- Pine Gulch Creek Water Rights and Enhancement
- Monitoring and measuring success
- Weed management

Cumulative Stream Conservation



Stream Conservation

