

# Ranch Plan and Certification Templates

Options and Lessons for Conditional Waiver Compliance

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WALKER CREEK RANCH (M.C. SUPERINTENDENT)  
AERIAL MAP



Legend

- Marin Roads 1
- Property Boundary

Scale: 1" = 1,000'  
 Data Source:  
 Aerials: 100% Imagery, FSA, 2005  
 Assessor's Parcels: Marin Agricultural Land Trust, 2007  
 Soils: SSURGO Soils, NRCS  
 Roads: TeleAtlas, 2008

WALKER CREEK RANCH (M.C. SUPERINTENDENT)  
TOPO MAP

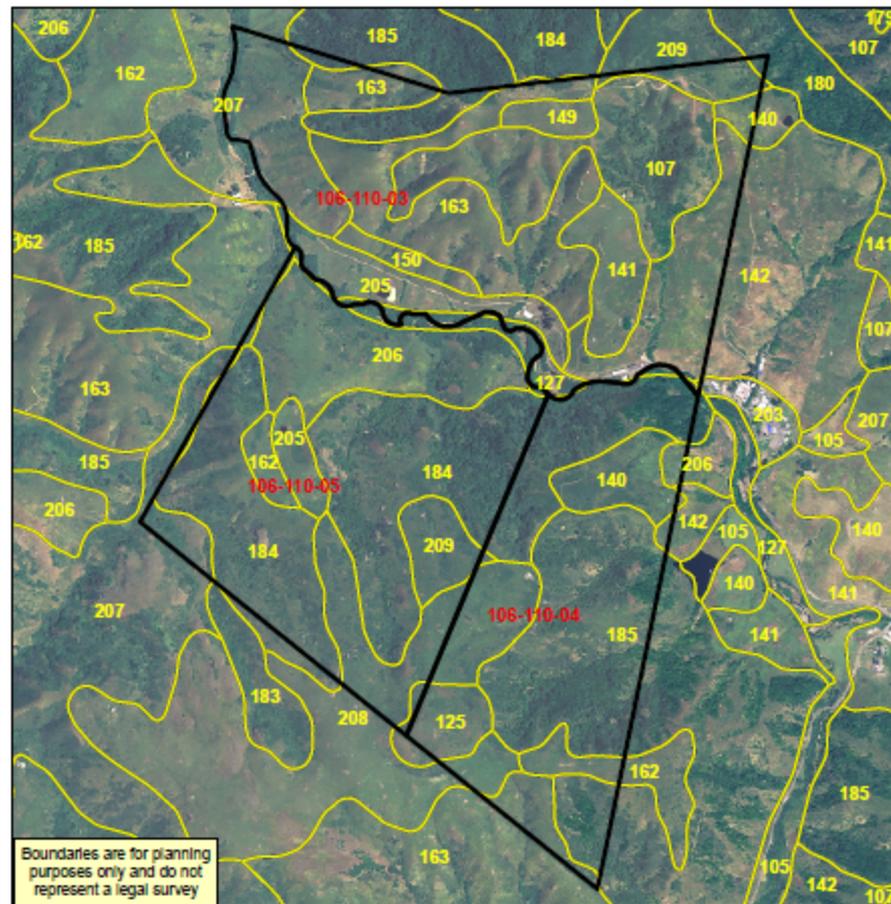


Legend

- Property Boundary

Scale: 1" = 1,000'  
 Data Source:  
 Aerials: NAIP Imagery, FSA, 2005  
 Assessor's Parcels: Marin Agricultural Land Trust, 2007  
 Soils: SSURGO Soils, NRCS  
 Roads: TeleAtlas, 2008

WALKER CREEK RANCH (M.C. SUPERINTENDENT)  
SOILS MAP



Legend

- Soil Map Units
- Property Boundary

Scale: 1" = 1,000'  
 Data Source:  
 Aerials: NAIP Imagery, FSA, 2005  
 Assessor's Parcels: Marin Agricultural Land Trust, 2007  
 Soils: SSURGO Soils, NRCS  
 Roads: TeleAtlas, 2004

Scale: 1" = 1,000'  
 Data Source:  
 Aerials: NAIP Imagery, FSA, 2005  
 Assessor's Parcels: Marin Agricultural Land Trust, 2007  
 Soils: SSURGO Soils, NRCS  
 Roads: TeleAtlas, 2004



# Waiver Requirements

- Ranch Water Quality Plan
- Compliance Monitoring and Reporting
  - Rancher Inspections
  - Annual Certifications

[http://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/tomalesbay/pathogenstmdl.shtml](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/tomalesbay/pathogenstmdl.shtml)

# Ranch Water Quality Plan

- Property Information – Page 8

- Contact Information
- Parcels covered
- Indicate Regional Board
- Landowner
- Tenant/Manager
- Existing plans

PROPERTY INFORMATION (required and kept on-site)			
<b>Ranch/Farm Location</b>			
Farm/Ranch Name:			
Mailing address or P.O. Box:			County:
City, State and Zip Code:			What Water Board region # is the ranch/farm in? <input type="checkbox"/> R1 (North Coast) <input type="checkbox"/> R2 (San Francisco Bay) <input type="checkbox"/> R3 (Central Coast) <input type="checkbox"/> R4 (Los Angeles) <input type="checkbox"/> R5 (Central Valley) <input type="checkbox"/> R6 (Lahontan) <input type="checkbox"/> R7 (Colorado River) <input type="checkbox"/> R8 (Santa Ana) <input type="checkbox"/> R9 (San Diego)
Phone:	Size (acres):		
List all Assessor Parcel Numbers (APNs) or legal description (Township, Range, Sections) for each parcel, pasture, or silage field included in this plan:			
<b>Owner</b>			
Name(s):			
Mailing address or P.O. Box:			<input type="checkbox"/> same as ranch address
City, State and Zip Code:			
Phone:		E-mail (optional):	
<b>Tenant/Manager (if not owner)</b>			
Name(s):			
Mailing address or P.O. Box:			
City, State and Zip Code:			
Phone:		E-mail (optional):	
<b>Plans &amp; Certifications</b>			
Check the box for the plans, certifications or other documents that exist for the ranch:			
<input type="checkbox"/> Conservation Easement Plan	<input type="checkbox"/> Dairy Quality Assurance Program	<input type="checkbox"/> Erosion Control Plan	<input type="checkbox"/> Fire Mngt. Plan
<input type="checkbox"/> Fish Friendly Farming	<input type="checkbox"/> Marin County Grass-Fed Certification	<input type="checkbox"/> Grazing Mngt. Plan	<input type="checkbox"/> MALT Mngt. Plan
<input type="checkbox"/> Organic Certification	<input type="checkbox"/> NRCS Conservation Plan	<input type="checkbox"/> Dairy Nutrient Mngt.	<input type="checkbox"/> Salmon Safe Certification
<input type="checkbox"/> Timber Harvest Plan	<input type="checkbox"/> UOCE Ranch Plan	<input type="checkbox"/> Dairy Waste Mngt. Plan	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Ranch Water Quality Plan

- Property Information – Page 8
- Ranch/Farm Goals – Page 9

## RANCH/FARM GOALS (optional)

Ranch goals are divided into production, quality of life and natural resource goals. These goals should reflect what you are trying to accomplish on your property. They are used to identify management strategies and practices for accomplishing your goals as well as to help you identify goals that might conflict with each other. Check any goal statements below which reflect your plans, reword them if needed and/or write-in your own.

### Production

- pass on the farm/ranch to the next generation
- reduce family/farm debt
- expand farm/ranch enterprises
- develop new enterprises
- increase farm/ranch profitability
- reduce operating costs
- purchase or lease more ranch/farm property
- other:

### Quality of Life

- reduce energy consumption in the farm/ranch operation
- provide for our children's college education
- provide financial or other support for community organizations
- reduce household operating expenses
- build an emergency fund
- raise livestock or crops during retirement
- build a retirement fund
- other:

### Natural Resources & Water Quality

- manage rangeland to protect soil from erosion
- manage cropland, pastureland or forestland to protect soil from erosion
- manage ranch roads to reduce movement of sediment into streams and other water bodies
- reduce erosion of streambanks and gullies
- manage to increase tree cover and/or ground cover in riparian areas or along streams
- reduce concentration of livestock in or near streams, wetlands, or other water bodies
- manage to reduce entry of sediment, nutrients and pathogens to streams or wetlands
- reduce wildfire hazard
- maintain or enhance oak woodland, native grass, or other plant communities
- maintain or enhance wildlife or fisheries habitat or other aquatic resources
- reduce/manage invasive weeds
- reduce/manage predator impacts on the ranching operation
- meet water quality regulations
- other:

- Production

- Life

- Natural Resources

# Ranch Water Quality Plan

- Property Information – Page 8
- Ranch/Farm Goals – Page 9
- Field/Pasture Inventory – Page 10



# Ranch Water Quality Plan

- Property Information – Page 8
- Ranch/Farm Goals – Page 9
- Field/Pasture Inventory – Page 10
- Pasture/Field Assessment – Page 11

PASTURE/FIELD ASSESSMENT (required and kept on-site)

The following questions are intended to help assess ranch/farm water quality and potential sources of pollution in the watershed. It is important to note that identified pollution sources may not be caused by current livestock grazing activities. This assessment is intended to be used on each pasture/field utilized for agricultural production purposes on the ranch/farm. Multiple fields or the entire ranch may be assessed at once. Describe the condition and pasture/field location. Note any recorded problem conditions as caused by: Current livestock management (C); a Historic legacy site (H); or Natural causes (N).

Question	Potential Source	Describe Condition & Location (pasture/field)	Cause (C, H, or N)
<b>SEDIMENT</b>			
<b>RANGELAND &amp; PASTURE/CROP FIELDS</b>			
Bare soil visible throughout the rainy season?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Rill or sheet erosion present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Gullies, slumps, or headcuts present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
<b>ROADS</b>			
Surface erosion present on road(s) (rills, gullies)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Culverts or ditches cause gullies or erosion?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Sediment fills drainage ditches after winter?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
<b>NUTRIENTS AND PATHOGENS</b>			
<b>LIVESTOCK DISTRIBUTION</b>			
Storm runoff from corrals connects to stream?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Corrals used throughout the winter?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Feeding, salting, or watering areas near stream?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Do livestock congregate in the stream?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
<b>MANURE MANAGEMENT</b>			
Manure stockpile runoff connects to stream?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Manure applied to pasture less than 2 weeks before a runoff generating rain storm?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Manure applied to pastures is stored (aged) less than one month?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
<b>MERCURY (for Walker Creek &amp; Arroyo Sausal and Salmon Creek just upstream of the confluence)</b>			
Floodplain soil disturbed, tilled, or eroding?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applic.		
Stock ponds or sediment basins on the floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applic.		

- Sediment

- Nutrients and Pathogens

- Mercury

# Ranch Water Quality Plan

- Property Information – Page 8
- Ranch/Farm Goals – Page 9
- Field/Pasture Inventory – Page 10
- Pasture/Field Assessment – Page 11
- Stream Assessment – Page 12

### STREAM ASSESSMENT (required and kept on-site)

This assessment is intended for perennial or intermittent streams that provide habitat for fish or frogs or support riparian vegetation. If you do not have streams with riparian vegetation, assess the larger intermittent stream channels that flow during the entire rainy season. Assess ranch/farm streams while standing near the creek. It is important to note that concerns identified may not be caused by current livestock grazing activities. Describe the condition and location. Note any recorded problem conditions as caused by: Current livestock management (C); a Historic legacy site (H); or Natural causes (N).

Question	Potential Concern	Describe Condition & Location (pastura/field)	Cause (C, H, or N)
<b>STREAM CHANNEL</b>			
Bare soil along banks of stream?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Unstable or eroding stream banks?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Does the stream have the potential to support trees (look for remnant trees/shrubs along the channel)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Are crossings for livestock unstable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Grazing in riparian areas takes place all season?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
<b>STREAM TEMPERATURE</b>			
Is stream exposed to full sun?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Wide and shallow streams?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
Does stream flow appear inadequate, given stream channel size?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		
<b>NUTRIENTS</b>			
Algae growth excessive in stream?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure		

- Stream or Riparian Areas





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# Ranch Water Quality Plan

- Property Information – Page 8
- Ranch/Farm Goals – Page 9
- Field/Pasture Inventory – Page 10
- Pasture/Field Assessment – Page 11
- Stream Assessment – Page 12
- Completed Water Quality Projects – Page 13

## COMPLETED WATER QUALITY PROJECTS (optional)

List all past water quality concerns on the ranch/farm and describe the issue. A concern does not indicate that livestock grazing or current management caused it. Describe any previously implemented management practice(s) intended to fix the problem. This includes steps to plan or receive technical/financial assistance, actual implementation or management changes, and the maintenance of projects or ranch infrastructure (cleaning culverts, scraping corrals, weed removal, etc.). Evaluate if more work is needed to improve water quality for each listed concern. Attach any old photographs of the concern including work completed if available. Use additional sheets if needed.

Water Quality Concern		Location (pasture/ field)	Practice(s) Completed	Maintenance Needs	Evaluation (Is more work needed?)	Photo Avail.?
#	Describe					

# Ranch Water Quality Plan

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- Stream Assessment – Page 12
- Completed Water Quality Projects – Page 13
- Future Water Quality Projects – Page 14

## FUTURE WATER QUALITY PROJECTS (required and kept on-site)

List all future potential water quality concerns on the ranch/farm with the expected pollutants from each. A concern does not indicate that livestock grazing or current management caused it. This includes locations where your current maintenance prevents problems such as maintaining ranch roads following winter storms. Consider multiple options for fixing water quality concerns such as implementing new practices, and changing management or maintenance routines. Estimate the approximate cost of each option as well as the amount of time needed to conduct maintenance. Give each project a priority, relative to other potential projects, indicating preferred order implementing the project. Assignment of priority recognizes that the availability of financial and technical assistance determines when work is done. List the steps taken to plan for the project including participation in technical & financial assistance programs (ranch visits, meetings, applications, expected contract dates, etc). Use additional sheets if needed.

Water Quality Concern		Location ( <i>pasture/ field</i> )	Options for Maintenance, Management Changes, or Practice(s) to Implement	Estimate Cost of Each Option	Priority	Implementation Planning
#	Describe					

- Start in December
- Wet Season
- Dry season
  - Including September
- Stream survey
  - Above
  - Below
- New projects and fixes
- Sign, Copy, Mail

**ANNUAL CERTIFICATION & COMPLIANCE MONITORING DOCUMENTATION**  
(required and must be submitted)

This ranch/farm is in compliance with the Grazing Operations Waiver Program (Conditional Waiver in the Tomales Bay Watershed, R2-2008-0054).

Farm/Ranch Name:	Phone:
Mailing address or P.O. Box:	City, State and Zip Code:
List all Assessor Parcel Numbers (APNs) or legal description (Township, Range, Sections) for each parcel, pasture, or silage field included in this plan:	

Ranch Plan (check one)

- A Ranch Water Quality Plan was completed in \_\_\_\_\_ (year) and will be updated in \_\_\_\_\_ (year).  
 The Ranch Water Quality Plan is expected to be finished in \_\_\_\_\_ (year).

Compliance Monitoring Inspections (fill-in dates of monitoring inspections were completed)

- 1) Wet season inspections conducted on: Dec. \_\_\_\_\_ Jan. \_\_\_\_\_ Feb. \_\_\_\_\_  
 March \_\_\_\_\_ April \_\_\_\_\_
- 2) Dry season inspections occurred on: June \_\_\_\_\_ Sept. \_\_\_\_\_
- 3) Survey of stream(s) below and above ranch facility completed on: \_\_\_\_\_
- 4) Are further management practices needed to improve water quality?  Yes  No  Not Sure

If yes is indicated in question 4, list any new potential water quality projects identified during ranch or stream inspections and describe planned or implemented fixes and any maintenance. Use additional pages if needed.

Date	Location (Pasture/ Field)	Describe Water Quality Concern	Notes (action taken, success, & future needs)

Completed by:  Landowner  Tenant  Other \_\_\_\_\_

\_\_\_\_\_  
(Print name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

Phone #: \_\_\_\_\_

Make copies for landowner & tenant.  
 Mail completed form by registered mail  
**before November 15 to:**  
 San Francisco Bay RWQCB  
 1515 Clay Street, Suite 1400  
 Oakland, CA 94612  
 ATTN: Grazing Operations Waiver Program

# Riparian Restoration



## Objectives

- Increase trees
- Increase shade
- Reduce erosion



## Options

- Fence
- Recruitment
- Plant
- Armor banks



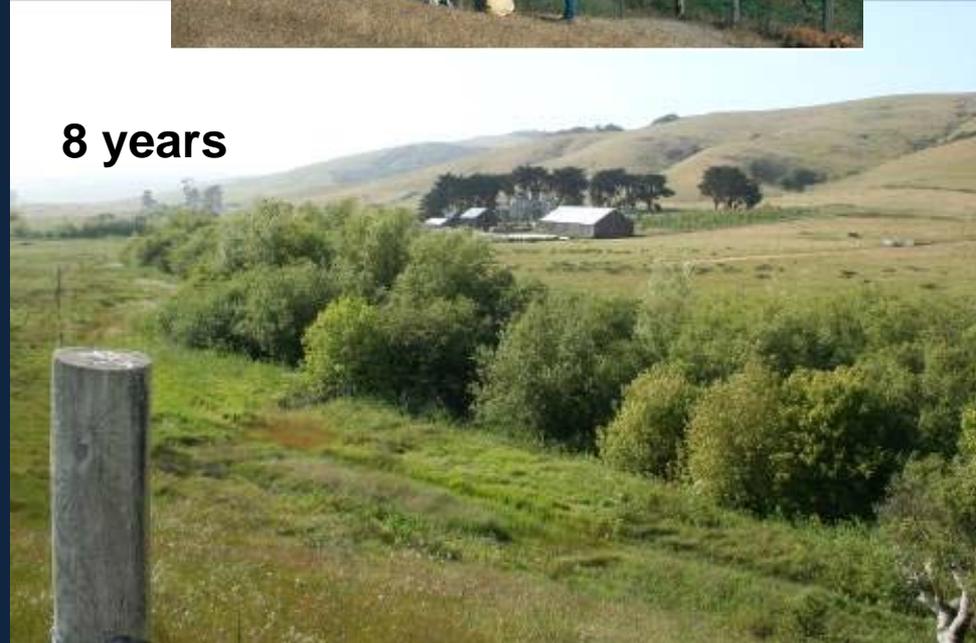
## Outcomes

- Establish trees?
- Plant diversity?
- Shade?

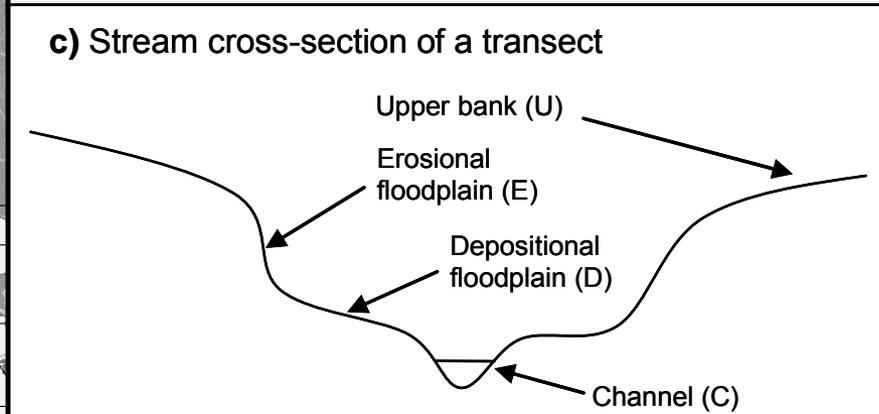
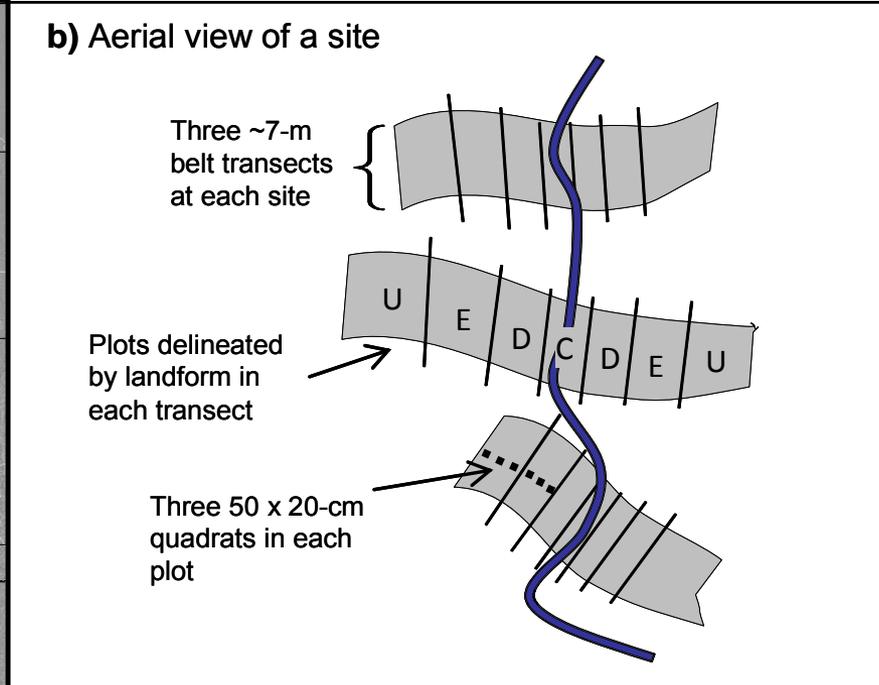
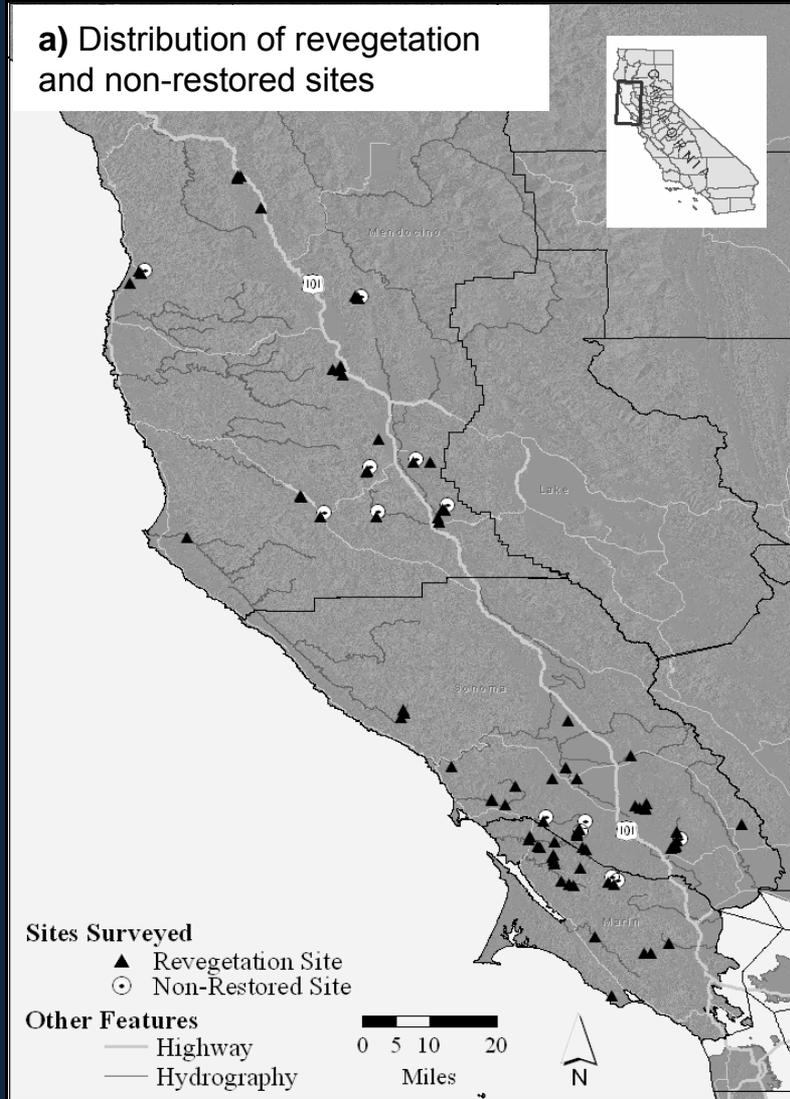
# Site Selection Criteria

- Tributary streams
- 4 years since project and greater
- Reach extensive projects
- Known methods and dates
- “Successes and failures”





Photographic time-series of a project site on a tributary to Walker Creek in Marin County, documenting 0-12 years since restoration occurred.  
(images courtesy of Marin Resource Conservation District).

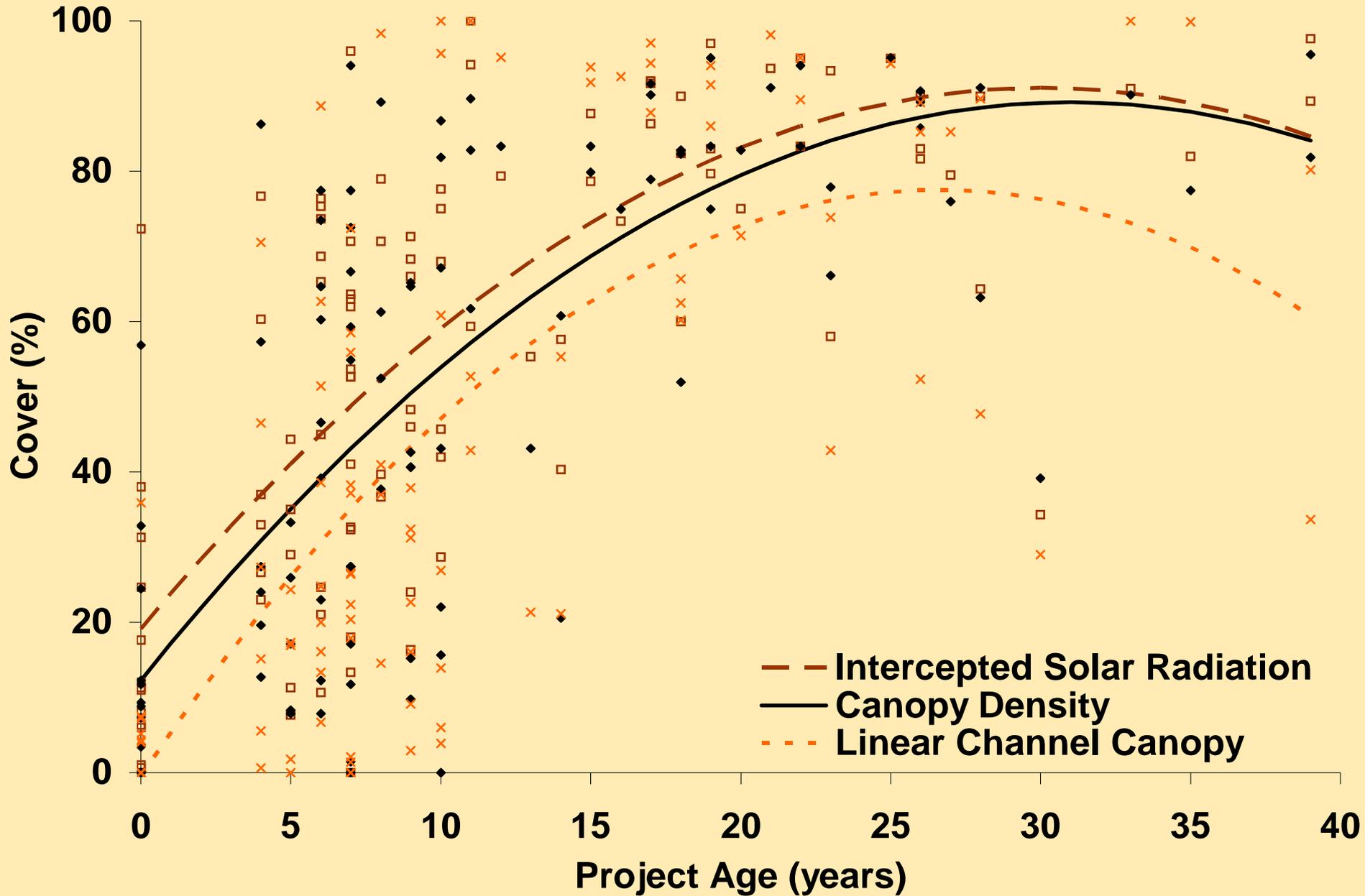


a) The three county study area with locations of restored and non-restored survey sites (image courtesy of Sonoma County GIS Central).

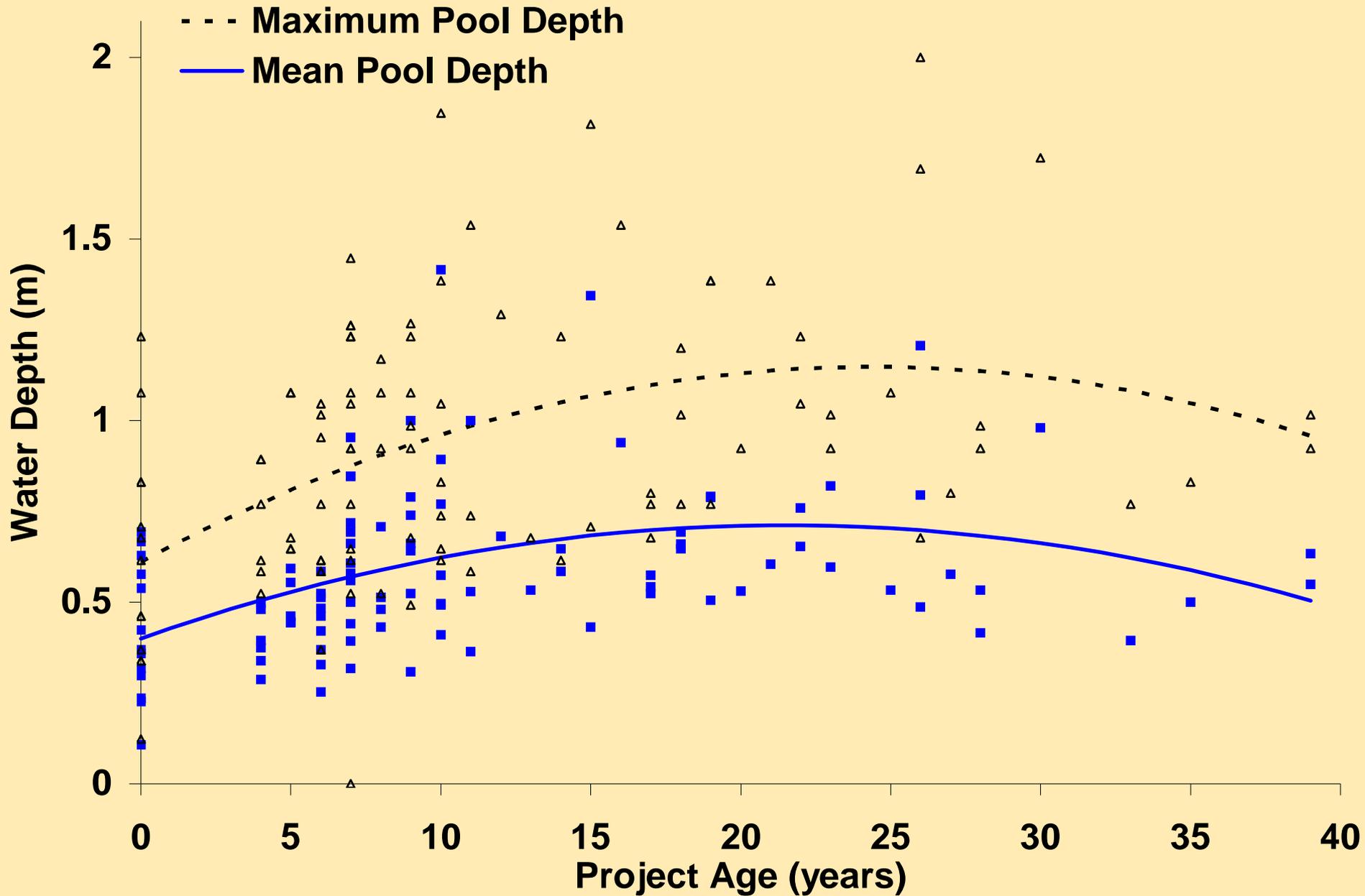
b) Aerial view depicting belt transects, plots, and herbaceous quadrats.

c) Stream channel cross-section showing landforms.

# Stream Shade



# Pool Habitat



# ANR Catalog

University of California  
Agriculture and Natural Resources

## ANR CATALOG

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Fax orders can be sent to: 510-665-3427.  
Our toll free customer service number is unchanged: 800-994-8849.  
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## THIS MONTH'S SPECIALS

Landscape Pest ID Cards 2 Item Promo

Landscape Pest ID Cards 3 Item Promo

Postharvest Transport Series Set

JOIN EMAIL LIST

<http://anrcatalog.ucdavis.edu/Items/8363.aspx>

<http://anrcatalog.ucdavis.edu/RangelandMonitoringSeries/8089.aspx>



<http://rangelandwatersheds.ucdavis.edu/>

