



UNIVERSITY OF CALIFORNIA
Division of Agriculture
and Natural Resources
<http://anrcatalog.ucdavis.edu>

In partnership with

Natural Resources Conservation Service
<http://www.nrcs.usda.gov>

Farm Water Quality Planning

A Water Quality and Technical Assistance Program for California Agriculture
<http://waterquality.ucanr.org>

This PLAN is part of the Farm Water Quality Planning (FWQP) series, developed for a short course that provides training for growers of irrigated crops who are interested in implementing water quality protection practices. The short course teaches the basic concepts of watersheds, nonpoint source pollution (NPS), site-assessment techniques, and evaluation techniques. Management goals and practices are presented for a variety of cropping systems.



The Farm Water Quality Plan

Plan components compiled by **MARY BIANCHI**, UC Cooperative Extension Farm Advisor, San Luis Obispo County; **DANIEL MOUNTJOY**, Area Resource Conservationist, USDA-NRCS; and **ALISON JONES**, Watershed Management Initiative Coordinator, Central Coast Regional Quality Control Board.

Use these sections to formalize a Farm Water Quality Plan for your farm.

This is the Farm Water Quality Plan for _____

Prepared by: _____

Date: _____

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PROPERTY INFORMATION	
Farm/Ranch	
Farm/Ranch Name:	
Mailing Address or P.O. Box:	
City, State and Zip Code:	
Phone:	Size (acres):
Owner	
Name(s):	
Mailing Address or P.O. Box: <input type="checkbox"/> Same as Farm/Ranch Address	
City, State and Zip Code:	
Phone:	E-mail:
Lessee/Manager	
Name(s):	
Mailing Address or P.O. Box: <input type="checkbox"/> Same as Farm/Ranch Address	
City, State and Zip Code:	
Phone:	E-mail:
Location	
County:	
Legal Description (Township, Range, Sections):	

Operations and Land use, cont'd.

Farming Enterprises		
Current farm/ranch enterprises or activities and the acreage devoted to each		
<input type="checkbox"/> Alfalfa/other hay	<input type="checkbox"/> Cotton	<input type="checkbox"/> Strawberries
<input type="checkbox"/> Caneberries	<input type="checkbox"/> Field crops	<input type="checkbox"/> Tree/fruit/nut crops
<input type="checkbox"/> Corn (grain)	<input type="checkbox"/> Irrigated pasture	<input type="checkbox"/> Vegetable crops
<input type="checkbox"/> Corn (silage)	<input type="checkbox"/> Oil crops	<input type="checkbox"/> Vineyard
<input type="checkbox"/> Other silage	<input type="checkbox"/> Rice	<input type="checkbox"/> Wheat, barley, oats
<input type="checkbox"/> Greenhouse <input type="checkbox"/> Container <input type="checkbox"/> Ground	<input type="checkbox"/> Shade & temporary <input type="checkbox"/> Container <input type="checkbox"/> Ground	<input type="checkbox"/> Outdoor flowers <input type="checkbox"/> Container <input type="checkbox"/> Ground
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule for rotated crops:		

Livestock Enterprises	
Number of pastures for grazing _____	
Types of livestock	Livestock access to water
<input type="checkbox"/> cow/calf—spring calving	<input type="checkbox"/> troughs and tanks
<input type="checkbox"/> cow/calf—fall calving	<input type="checkbox"/> springs
<input type="checkbox"/> cow/calf—year-round calving	<input type="checkbox"/> streams or creeks
<input type="checkbox"/> stocker production	<input type="checkbox"/> stock ponds
<input type="checkbox"/> goat production	<input type="checkbox"/> water gaps
<input type="checkbox"/> llama production	<input type="checkbox"/> wells
<input type="checkbox"/> horses	<input type="checkbox"/> river
<input type="checkbox"/> ratite (ostrich, emu, etc.) production	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

STATEMENT OF GOALS

Production Goals

<input type="checkbox"/> to pass the farm/ranch on to the next generation
<input type="checkbox"/> to reduce family/farm debt so that only minor borrowing for operating capital is necessary in a typical year
<input type="checkbox"/> to expand existing enterprises
<input type="checkbox"/> to increase income by developing new enterprises
<input type="checkbox"/> to increase profitability
<input type="checkbox"/> to purchase or lease more property
<input type="checkbox"/> to reduce short-term production costs
<input type="checkbox"/> to achieve long-term reduced production costs
<input type="checkbox"/> to increase the value of the land
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Quality of Life Goals

<input type="checkbox"/> to reduce energy consumption in our home and in the farm/ranch operation
<input type="checkbox"/> to reduce family debt
<input type="checkbox"/> to provide support for our children's college education
<input type="checkbox"/> to provide financial or other support to community organizations
<input type="checkbox"/> to reduce household operating expenses
<input type="checkbox"/> to build an emergency fund
<input type="checkbox"/> to be involved in at least one significant community activity that is important to our family's goals, health, values, or well-being
<input type="checkbox"/> to build a retirement fund
<input type="checkbox"/> to grow crops or raise livestock during my retirement
<input type="checkbox"/> to enhance relationships with neighbors and the community
<input type="checkbox"/> to enhance health and well-being on the farm
<input type="checkbox"/>
<input type="checkbox"/>

Statement of Goals, cont'd.

Natural Resource/Water Quality Goals
<input type="checkbox"/> to protect cropland, nursery area, rangeland, pastureland, and/or forestland from erosion
<input type="checkbox"/> to manage farm or ranch roads to reduce movement of sediment into streams, and other water bodies
<input type="checkbox"/> to reduce human-caused erosion of stream banks
<input type="checkbox"/> to increase canopy and/or ground cover in riparian areas or along streams and other water bodies
<input type="checkbox"/> to protect and enhance fish populations and other aquatic resources.
<input type="checkbox"/> to reduce concentration of livestock in or near riparian areas, streams or other water bodies
<input type="checkbox"/> to reduce the opportunity for nutrients, pesticides, and pathogens to enter streams or other water bodies.
<input type="checkbox"/> to maintain and enhance riparian plant communities
<input type="checkbox"/> to reduce wildfire hazard
<input type="checkbox"/> to maintain and protect oak woodland and other upland native plant communities
<input type="checkbox"/> to maintain or improve wildlife habitat
<input type="checkbox"/> to reduce/manage invasive weeds
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

REGIONAL AND LOCAL WATER QUALITY INFORMATION

This section is a place for you to document information about your watershed, groundwater basin, and downstream waterbodies that has been collected by a variety of agencies. This information is documented in the following resources:

California Coastal Commission (CCC)

CCAs <http://www.coastal.ca.gov/nps/cca-nps.html>

California Department of Pesticide Regulation (DPR)

GWPA Maps

<http://www.cdpr.ca.gov/docs/gwp/gwpamaps.htm>

GWPA Lists by Legal Description

http://www.cdpr.ca.gov/docs/gwp/gwpa_lists.htm

National Oceanic and Atmospheric Administration (NOAA) –
National Marine Fisheries Service (NMFS) Protected Resources Division
ESUs <http://swr.ucsd.edu/psd/ps1inf.htm#Salmon>

State Water Resources Control Board (SWRCB) – Regional Water Quality Control Board (RWQCB)

Beneficial Uses - Basin Plan

http://www.swrcb.ca.gov/rwqcb3/BasinPlan/BP_text/chapter_2/figs_n_tables/table_2-1.doc

Beneficial Use Support - California Water Quality Assessment Report 1998 -
Staff Report Part A

<http://www.swrcb.ca.gov/general/publications/index.html#Cc>

Clean Water Act Section 303(d) List

<http://www.swrcb.ca.gov/tmdl/docs/2002reg3303dlist.pdf>

CCAMP Monitoring Data <http://www.ccamp.org/ca/3/3.htm>

How to complete this section

Draw from the above resources to complete this section. If you don't have access to one of these resources, contact your Watershed Coordinator or contact the agency directly.

Regional and Local Water Quality Information, cont'd.

Is a coastal zone downstream of the operation designated by the California Coastal Commission as a proposed Critical Coastal Area (CCA)? Yes No

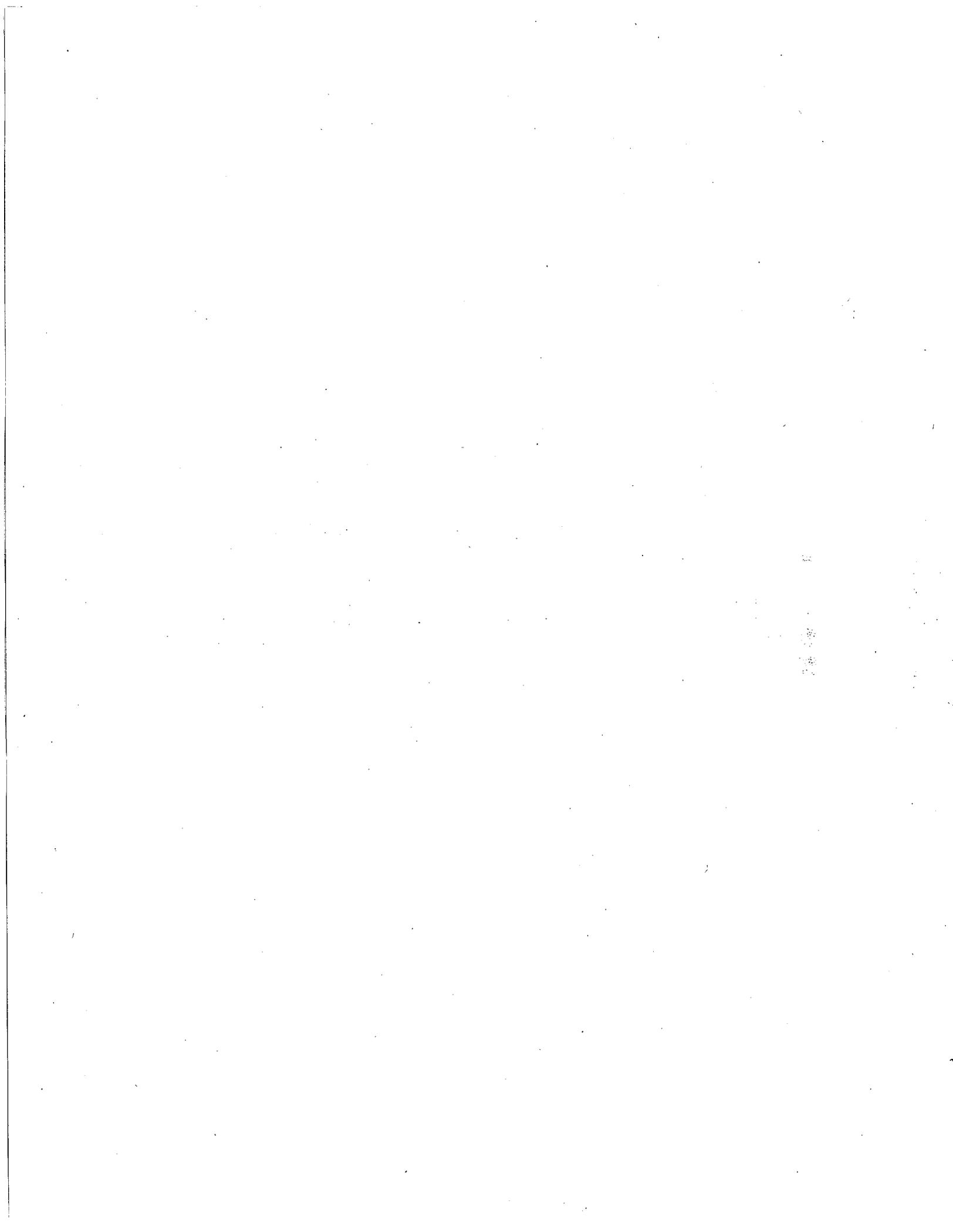
Groundwater Basin

Name and Number of the Groundwater Basin:

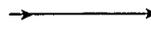
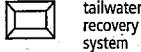
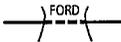
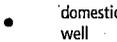
Is the farm/ranch within an area designated by the California Department of Pesticide Regulation as a Ground Water Protection Area (GWPA)? Yes No

Include maps that indicate your watershed, groundwater basin, and flow of water from your operation to the ocean.

FARM/RANCH MAP		
Facilities and Resources Keep maps and photographs with Plan for reference		
Indicate the acres within the boundary, number of each facility and hydrologic feature, and miles of road and fencing. Rough estimates are adequate for miles.		
Shown on map	Boundaries	Total Acres
<input type="checkbox"/>	Farm or ranch boundary	
<input type="checkbox"/>	Field boundaries	
<input type="checkbox"/>		
Buildings		Total Number
<input type="checkbox"/>	Residence, offices office	
<input type="checkbox"/>	Barns/shops/outbuildings barn	
<input type="checkbox"/>	Pesticide storage pesticide	
<input type="checkbox"/>	Fertilizer storage fertilizer	
<input type="checkbox"/>	Petroleum storage petroleum	
<input type="checkbox"/>	Dairy or other animal handling facilities	
<input type="checkbox"/>	Livestock waste management facilities	
<input type="checkbox"/>	Greenhouses greenhouse	
<input type="checkbox"/>	Shade houses, other temporary structures	
<input type="checkbox"/>	Soil handling/mixing, compost areas stack yard	
<input type="checkbox"/>	Boiler rooms	
<input type="checkbox"/>	Cold storage, postharvest handling	
<input type="checkbox"/>		
Structures		Total Number
<input type="checkbox"/>	Equipment yards	
<input type="checkbox"/>	Corrals	
<input type="checkbox"/>	Feedlots feedlot	
<input type="checkbox"/>	Septic tanks, other bathroom facilities	
<input type="checkbox"/>	Stockwater storage tanks water tank	
<input type="checkbox"/>	Stockwater troughs	
<input type="checkbox"/>	Erosion control structures 58	
<input type="checkbox"/>		



Farm/Ranch Map, cont'd.

Fences and Roads		Total Miles
<input type="checkbox"/>	Fences 	
<input type="checkbox"/>	Dirt road 	
<input type="checkbox"/>	Gravel road 59 	
<input type="checkbox"/>	Paved road 	
<input type="checkbox"/>		
Hydrologic Features		Total Number
<input type="checkbox"/>	Irrigation ditches 	
<input type="checkbox"/>	Irrigation ditches, lined 59 	
<input type="checkbox"/>	Streams and creeks 	
<input type="checkbox"/>	Springs 	
<input type="checkbox"/>	Irrigation reservoirs 	
<input type="checkbox"/>	Recycling reservoirs 59 	
<input type="checkbox"/>	Irrigation settling ponds 59 	
<input type="checkbox"/>	Stockwater ponds 	
<input type="checkbox"/>	Tailwater recovery systems 59 	
<input type="checkbox"/>	Bridges 	
<input type="checkbox"/>	Stream crossings 	
<input type="checkbox"/>	Domestic wells 59 	
<input type="checkbox"/>	Irrigation wells 	
<input type="checkbox"/>	Stockwater wells 59 	
<input type="checkbox"/>		

SITE ASSESSMENT AND PRACTICES PLANNING

You have completed the basin water quality information that lists important water bodies in your area and the water quality problems that have been identified for these water bodies. You have also created a map of your farm or ranch that lists land uses, facilities, and resources.

The following section can help identify areas of your farm or ranch where you've already implemented management practices to protect water quality. It can also help determine what areas of your farm or ranch can receive the most benefit from the implementation of new management practices. These items can be added to your map.

A trip around the property in a vehicle or on foot may be necessary to complete this assessment. Some of the assessment may involve accessing your pesticide use reports, or operations budget for nutrients applied to specific fields. Keep this section and the following self-evaluation section as a working document to record your decisions and your progress. You should keep records or take photographs before and after implementation to document changes that occur as a result of practices or groups of practices.

If you conclude that you need to make some changes, it may take you a while to decide how to proceed. You may want to compare practices that can accomplish the same thing. Not all practices listed may be applicable or available for your situation. Discuss these options with other farmers, consultants, or technical advisors from UCCE, NRCS, RCDs or other organizations. You should estimate costs of implementation. You may want to seek cost share funding with NRCS or other sources.

How to complete this section:

If you answer "yes" to any of the questions, look at the following table(s) for Management Practices. Select Practices that you are currently using or that you think might be useful. Update annually and keep notes that help with record keeping. If you would like to be more specific, you can record block designations, square footage, or acres of each selected Practice in the "location(s)" column. NRCS Conservation Practice Standards that you might want to use are listed where applicable. 59

