

ALMOND EXAMPLE

Template for Sediment and Erosion Control Plan

General Instructions

Introduction: Soil erosion and sediment deposition from farmlands can contribute to degraded surface water quality. Sediment delivery is known to be relatively high in areas where there are steep slopes, erodible soils, and rainfall runoff activity. Roads, stream crossings, and other areas of disturbed ground where bare soils are susceptible to the erosive action of flowing water can also be contributors of sediment to water bodies.

A Sediment Discharge and Erosion Assessment Report (SDEAR) was prepared by your water quality Third-Party Group/Coalition and approved by the Regional Water Quality Control Board (Water Board) as required by the General Order. Based on the approved SDEAR, it was determined that agricultural lands in the area you farm are prone to erosion and possible discharge of sediment and which could degrade surface water quality. Because of that potential, you are required to use this template to prepare and have certified a Sediment and Erosion Control Plan (SECP or Plan) for the parcels. The Plan must be maintained at the farming operation's headquarters or primary place of business. **DO NOT SUBMIT THIS PLAN TO YOUR COALITION.** Upon request, the Plan must be made available to the Water Board or an authorized representative, should they conduct an inspection of your farming operation.

The Plan will help identify the erosion sources and potential locations of sediment discharge that could affect the quality of storm water and irrigation water discharges off your farm lands. As part of the Plan, you are asked to document the management practices you have or plan to implement based on the potential for sediment discharge and erosion from your parcels. The plan development must adequately address your operation and must be implemented to address site specific conditions.

Section Instructions

Section 1: General Information

- a. Fill in or update any parcels and/or corresponding field(s) which have been identified as requiring a Sediment Discharge and Erosion Control Plan.
- b. Provide any additional information pertinent to the site under General Information Comments.

Section 2: On-farm Sediment and Erosion Management Practices

- a. Use this list of *On-farm Sediment and Erosion Control Practices* to identify all the sediment and erosion control practices currently implemented on the parcels identified in Section 1.
- b. Insert the Practice Code into the table in Section 3.

Section 3: Sediment and Erosion Control Site Evaluation

- a. Attach a map of your farming operation (you can use the map that was a part of your Farm Evaluation Survey, or draw/develop a map of your farming operation). The map should show parcel(s) outlines and include the Assessors Parcel Number (APN), and Field ID.
- b. Use the evaluation table provided to determine areas of your operation that are prone to erosion and sediment discharge and that require further evaluation on your part.

- c. The table lists several suggested sites (provide your own site-specific locations if necessary) to be evaluated; they may require you to visit the location to determine if different management practices are needed to minimize the transport of sediment from the evaluated areas and into adjacent streams, channels, or drains.
- d. Assign a Location ID Point to that site in the table and on the attached map that you are evaluating. The *Location ID Points* are consecutive numbers assigned to the locations.
- e. The practices recorded in this Plan should correspond to the Location ID Points on the map. The ID point will become a reference that can be used to locate the site if future evaluation is needed.
- f. Using the appropriate Management Practice ID Code from Section 2, identify which Management Practices (if any) are currently being employed at the site; also identify the Management Practice(s) proposed to mitigate the sediment discharge and/or erosion and place the appropriate code(s) in the table.
- g. Lastly, provide the date you propose that the new Management Practice(s) will be fully implemented.

Section 4: Sediment and Erosion Control Plan Certification

Using the boxes, identify the method used to complete the Plan, provide the required information and sign. The Plan must be prepared in one of the following ways:

- (1) The Plan must adhere to the site-specific recommendations provided by the listed agency. The Member must retain written documentation of the site-specific recommendation provided and certify that they are implementing the recommendations; or
- (2) The Plan must be written, amended, and certified by a qualified professional possessing the required registrations or certifications and have appropriate experience with erosion issues on irrigated agricultural lands; or
- (3) The Plan must be prepared and self-certified by the Member, who has completed a training program that the Executive Officer of the Water Board concurs provides necessary training for sediment and erosion control plan development; or
- (4) The Plan must be prepared and certified in an alternative manner approved by the Executive Officer. Such approval will be provided based on the Executive Officer's determination that the alternative method for preparing the Plan meets the objectives and requirements of the Order.

Sediment and Erosion Control Plan (SECP) Template

Member Name: John and Jane Smith

1. General Information:

Provide the required information where indicated.

Parcel (APN)	Field ID(s)
<u>654-123-55</u>	<u>Block A</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

General Information Comments:

Block A is currently planted with mature almond trees and irrigated using surface irrigation. There is a river adjacent to the low end of the field.

Name of Person Completing the Template:

John Smith

Member Name: John and Jane Smith

2. On-farm Sediment and Erosion Management Practices:

Use these Practice Codes to insert into the table in Section 3.

Management Practice Code	Inventory of Sediment and Erosion Control Practices
Current Irrigation Infrastructure Practices	
I-1	Drip/microspray irrigation installed and used.
I-2	Use of irrigation equipment (sprinklers, micro-sprinklers, emitters, etc.) to match soil infiltration rates as much as possible to prevent runoff.
I-3	Recirculation systems are used to keep sediment and farm inputs on site. Water is recirculated to irrigate other fields.
I-4	In-furrow dams are used to increase infiltration and settling out of sediment prior to entering the tail ditch.
I-5	Storm water is captured using field borders to reduce runoff and supplement field irrigation.
I-6	Use of flow dissipaters to minimize erosion at discharge point.
I-7	Shorter irrigation runs are used with checks to manage and capture flows.
I-8	Land grading has been done to increase irrigation efficiency and improve control of drainage.
I-9	Fields are planted on the contour to reduce runoff.
I-10	Crop rows are graded, directed and at a length that will optimize the use of rain and irrigation water.
I-11	Berms are constructed at low ends of fields to capture runoff and trap sediment.
I-12	Vegetative filter strips and buffers are used to capture flows.
I-13	Subsurface pipelines are used to channel runoff water.
I-14	Hedgerows or trees are used to help stabilize soils and trap sediment movement.
I-15	Sediment basins / holding ponds are used to settle out sediment and hydrophobic pesticides such as pyrethroids from irrigation and storm runoff.
I-16	Other irrigation practices (Attach additional sheets if necessary to list and describe practices):
Current Irrigation Management Practices	
M-1	Use of irrigation scheduling methods and equipment to match irrigations to crop needs where possible.
M-2	The time between pesticide applications and the next irrigation is lengthened as much as possible to mitigate runoff of pesticide residue.
M-3	Vegetated ditches are used to remove sediment as well as water soluble pesticides, phosphate fertilizers and some forms of nitrogen.
M-4	Cover crops, native vegetation, and/or natural mulch are used to reduce erosion.
M-5	Soil water penetration has been increased through the use of amendments, deep ripping and/or aeration.
M-6	PAM (polyacrylamide) used in furrow and flood irrigated fields to help bind sediment and increase infiltration.
M-7	Minimum tillage incorporated to minimize erosion.
M-8	Other irrigation management practices: (Attach additional sheets if necessary to list and describe practices):
Other Practices	
O-1	Grade access roads to reduce on-road erosion.
O-2	Control concentrated drainage on roads with culverts, rolling dips, etc.
O-3	Direct drainage off road to vegetated area, ditches, sediment basins, etc.
O-4	Protect roads in rainy season by seeding roads, rice straw, gravel, avoid use, etc.
O-5	Check culverts in rainy season to ensure they are not plugged with debris.
O-6	Minimize erosion downstream of culverts by using energy dissipaters.
O-7	Remove stream crossings wherever possible.
O-8	Creek banks and stream banks have been stabilized.

* Federal and state permits may be required prior to conducting work in surface waters (e.g. bank stabilization, crossings). If an United States Army Corps of Engineers permit, or any other federal permit, is required due to the disturbance (in-water work) of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. For questions regarding Water Quality Certification, contact the Central Valley Water Board Certifications Unit, Elizabeth Lee (Elizabeth.Lee@waterboards.ca.gov).

Member Name: John and Jane Smith

Control Practice Comments:

The practices recommended on this form should be sufficient protection against erosion and sediment discharge for situations of irrigation events and typical winter rainfall. This form is not meant to guard against the potential erosion and sediment discharge that would accompany an extra-ordinary storm event. Such practices are impractical for any farming operation.

Member Name: John and Jane Smith

3. Sediment and Erosion Control Site Evaluation:

List of suggested locations/sites to evaluate:
 (provide your own site-specific locations if necessary)

Farm Fields

Discharge Points from the Field

Discharge Points into Drains

Water Delivery Canals

Culverts

Stream Crossings

Access Roads

Attach additional sheets, if necessary, to include all locations that require evaluation

Evaluated On-farm Locations	Location ID Point	Evaluation Date	Current Practice ID Code (if any)	Existing Practices Sufficient	Recommended Practice ID Code	Planned Implementation Date
Block A (almonds)	1	06/23/2016	I-11 (Berm at the head of the field)	NO	I-5 (field borders around field), I-13 (subsurface pipeline), I-5 (Sediment basin), I-14 (plant hedgerows), and I-16 (Staked bay bales)	October 2017

Member Name: John and Jane Smith

4. Sediment and Erosion Control Plan Certification

On the following table place a check mark next to the choice of the method to certify the Sediment and Erosion Control Plan. Supply the additional information required for the method of choice and provide the necessary signature.

Qualifying Sediment and Erosion Control Plan Certification Methods		
Mark Selected Method	Qualifying Agency Certification	Area Office/County
	Natural Resources Conservation Service (NRCS)	
	University of California Cooperative Extension	
	Resource Conservation District	
	County Ordinance Applicable to Sediment & Erosion	
	Qualifying Professional Certification/Registration	Certification/Registration Number
	California Registered Professional Civil Engineer	
	California Registered Professional Geologist	
	California Registered Professional Engineering Geologist	
	California Registered Professional Landscape Architect	
	NRCS Certified Conservation Planner	
	American Institute of Hydrology: Professional Hydrologist	
	American Society of Agronomy: Certified Soil Scientist	
	EnviroCert International, Inc: Certified Professional in Erosion and Sediment Control	
	EnviroCert International, Inc: Certified Professional in Storm Water Quality	
	National Institute for Certification in Engineering Technologies: Professional in Erosion and Sediment Control	
	Alternative Certification Methods	Training Program/Method
X	Self-certified by Member	Grower Self-Certification Training (date)
	Executive Officer's Approved Method	

Printed Name: John Smith

Certifying Signature: _____ Date: 06/23/2016