

San Joaquin County and Delta Water Quality Coalition

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December 15, 2015

Ms. Pamela Creedon, Executive Officer
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114

Dear Ms. Creedon,

The San Joaquin County and Delta Water Quality Coalition (SJCDWQC) is submitting a work plan for addressing the risk of discharges from parcels in close proximity to surface water that were not identified in the Sediment Discharge and Erosion Assessment Report (SDEAR). Key components of the work plan include identifying landscape factors that prevent movement of sediment offsite from agricultural parcels to surface water; also identifying irrigation practices that reduce the probability of sediment discharge.

The SJCDWQC will use these factors on a landscape basis to prove that member parcels do not need a Sediment and Erosion Control Plan (SECP). Other third party coalitions are in the process of developing their plans. In order to streamline the review of plans and ensure there is consistence in approaches where practical, we are requesting the continuation of dialogue initiated in June 2015 between the third parties and Regional Water Board to discuss the methods and criteria proposed to determine and address proximity to surface water and to identify how to use existing information to make this process effective in reducing sediment discharge and erosion across the Central Valley.

The Coalitions will be contacting the Regional Water Board to identify dates on which the discussion can take place.

Given the possibility that a different set of criteria for identifying parcels that must be covered by a SECP may emerge, the SJCDWQC may request to modify or refine the approach described in this submission.

Respectfully,



Michael Wackman
Executive Director, San Joaquin County and Delta Water Quality Coalition

San Joaquin County and Delta Water Quality Coalition

Sediment Discharge and Erosion Assessment Report

Proximity to Surface Water Work Plan

December 15, 2015

Introduction

The San Joaquin County and Delta Water Quality Coalition (SJCDWQC or Coalition) received a conditional approval of the Sediment Discharge and Erosion Assessment Report (SDEAR) on August 12, 2015. The conditional approval letter from the Executive Officer of the Central Valley Regional Water Quality Control Board (Regional Water Board) indicated that a work plan with a timeline to address proximity to surface waters must be submitted by the SJCDWQC by December 15, 2015. The concern of the Regional Water Board was that the SDEAR submitted by the SJCDWQC relied on the RUSLE model which does not directly indicate which areas might be susceptible to erosion due to irrigation as irrigation runoff and tailwater discharges are not accounted for in the RUSLE model. The following work plan includes a framework for reviewing SJCDWQC member parcels that are in proximity to surface waters and that have the potential for sediment laden discharges in storm water and irrigation and/or tailwater discharges. A timeline for evaluating these parcels is also included.

Critical elements that lead to erosion and sediment movement to surface water

Sediment can move to surface water in both rain runoff and irrigation runoff. Movement during or after rain events is due to exposed soil on high slopes and long hillsides when rain water has the power to mobilize soil. During irrigations, movement of sediment is a result of irrigation flows creating sufficient shear stress on exposed soils that mobilize sediment and when a channel to a waterway exists, discharge of sediment to surface water.

Mobilization of soil from rain events and irrigation does not result in discharge to surface water unless there is a physical pathway to surface water that does not impede water movement. Natural landscape features, such as hydrologic isolation of land, can prevent movement of surface water and any sediment carried in the water. There are also a variety of management practices that either eliminate discharge, or “treat” water as it leaves the parcel, e.g. vegetative filter strips that trap sediment before it can move to surface water.

Elements that prevent movement of sediment to surface water

Sediment can be mobilized by either rainfall events or irrigation but unless there is an uninterrupted, downward slope, neither water nor sediment can move to surface water. Locations that cannot discharge sediment are hydrologically disconnected from surface water. Physical barriers such as berms, levees, and natural riparian vegetation can prevent movement of sediment to surface water by isolating the parcel from surface water. In addition, if the parcel is at an elevation below the water body, water cannot flow uphill to surface water.

All of these conditions result in the disconnection of the land surface to surface water during the rain runoff events or irrigations. In addition, during an irrigation event, no sediment can be discharged if there is insufficient volume or velocity of water to develop the shear stress necessary to mobilize sediment. Drip irrigation and microsprinkler irrigation techniques distribute the volume of applied water over a substantially longer time period eliminating the potential to create the shear stress and excessive flows necessary to mobilize sediment.

Process to identify members who need to complete a SECP

Using the Revised Universal Soil Loss Equation, the Coalition identified members who need to complete a Sediment Erosion Control Plan (SECP) for parcels that have the potential to discharge sediment at greater than 5 tons/acre/year. This Work Plan includes a framework for identifying additional parcels based on proximity to surface waters and the potential for irrigation/tailwater discharge that are not already identified by the SDEAR.

The Coalition will first identify all parcels that are adjacent to surface water, termed adjacent parcels, to be evaluated for the potential to discharge rainfall or irrigation runoff based on proximity. Not all of these parcels are enrolled in the Coalition and therefore the next step will be to evaluate adjacent parcels enrolled in the Coalition. If these parcels are already identified in the SDEAR as having the potential to discharge sediment (RUSLE model), members with those parcels will need to complete a SECP.

For the remaining parcels, the Coalition will review parcel information to determine if:

1. The parcel is below the level of the water way.
2. Berms/levees/elevated roadways are between a water way and the parcel.
3. Parcel has riparian vegetation that would prohibit sediment discharge or erosion

If a parcel meets one of the criteria above, the member will not be required to fill out a SECP since there is not a risk of rainfall or irrigation runoff and/or tailwater discharge that would cause sediment discharge or erosion. The Coalition will obtain information to determine if parcels meet any of the above criteria through Farm Evaluation Plans (Part D, Sediment and Erosion Control Practices) and also by using water channel maps developed by irrigation and flood control districts or other entities. The Coalition may produce a map of the leveed waterways using these information sources to better identify adjacent parcels with the potential to discharge rainfall runoff or irrigation water resulting in sediment

discharge and/or erosion. Aerial photos may also be used to determine where riparian vegetation would also eliminate risk.

Schedule

The Coalition will continue discussions with all the Central Valley coalitions and the CVRWQCB to determine the most effective strategy to identify parcels adjacent to surface waters that have a risk of discharging sediment. The SJCDWQC has proposed a framework by which to narrow the number of adjacent parcels based on physical structures/attributes that would eliminate the risk of sediment discharge, however; additional strategies may be posed by other Coalitions and will be considered in refinement and finalization of this plan.

The SJCDWQC will evaluate adjacent parcels using a phased approach based on the size and flow of waterbodies in the coalition region:

- 3 months after approval of Work Plan: Identify adjacent member parcels along large waterbodies; member parcels would need to complete an SECP by February 2017.
- 6 months after approval of Work Plan: Identify adjacent parcels along secondary tributaries; member parcels would need to have a completed SECP by February 2018
- 18 months after approval: Identify adjacent parcels along remaining water bodies (e.g. drains, ephemeral water bodies, conveyance structures/laterals); member parcels would need to have a completed SECP by February 2019.

Months After Approval	SJCDWQC Deliverable	Member SECP Due Date
3 months	Large Tributaries – identification of member parcels with potential for sediment discharge or erosion due to irrigation runoff	February 2017
6 months	Secondary Tributaries – identification of member parcels with potential for sediment discharge or erosion due to irrigation runoff	February 2018
18 months	Remaining water bodies – identification of member parcels with potential for sediment discharge or erosion due to irrigation runoff	February 2019