
Central Valley Regional Water Quality Control Board

5 November 2015

Tim Ashlock
Buena Vista Coalition
P.O. Box 756
Buttonwillow, CA 93206

CONDITIONAL APPROVAL OF SEDIMENT DISCHARGE AND EROSION ASSESSMENT REPORT, BUENA VISTA COALITION

Thank you for the 4 February 2015 submission of the Buena Vista Coalition's (Coalition) Sediment Discharge and Erosion Assessment Report (SDEAR) in accordance with the Waste Discharge Requirements General Order R5-2013-0120 (Order).

Based on Central Valley Water Board staff review, the SDEAR partially achieves the Order objective to identify Member parcels subject to sediment discharge which may impact surface water quality. I am conditionally approving the Coalition's SDEAR while issues identified in the enclosed memorandum are resolved.

By **5 March 2016** the Coalition must submit a revised SDEAR that expands the assessment to include all surface waters meeting the definition in the Order, and provides justification for any excluded areas (e.g., areas further than 500 meters from a water body). The revised report must be accompanied by a shapefile containing parcels within the Coalition area determined to be high risk, and provide the certification statement listed in Section IX of the Order. By **5 March 2016** the Coalition must provide a work plan and time schedule to address proximity to surface waters as a risk factor that increases the potential for discharge of sediment that may degrade surface water. Appropriate rationale must be provided for all evaluation criteria. Final approval will follow submittal of an acceptable revised SDEAR addressing proximity to surface waters.

If you have any questions, please contact Eric Warren at (559) 445-5035 or by e-mail at eric.warren@waterboards.ca.gov.

Sincerely,

Original signed by Clay L. Rodgers for

Pamela C. Creedon
Executive Officer

cc: Sue McConnell, Central Valley Water Board, Rancho Cordova

Central Valley Regional Water Quality Control Board

TO: David Sholes, C.E.G. 1687
Senior Engineering Geologist
Irrigated Lands Regulatory Program

FROM: Eric Warren
Water Resource Control Engineer
Irrigated Lands Regulatory Program

DATE: 5 November 2015

**SUBJECT: SEDIMENT DISCHARGE AND EROSION ASSESSMENT REPORT REVIEW,
BUENA VISTA COALITION**

On 4 February 2015 the Buena Vista Coalition (Coalition) submitted a report entitled *Sediment Discharge and Erosion Assessment Report*. The Coalition is currently approved under Waste Discharge Requirements General Order R5-2013-0120 (Order) to serve as a third-party entity representing owners and operators of irrigated lands located within the Tulare Lake Basin Area. A Sediment Discharge and Erosion Assessment Report (SDEAR) is required of the Coalition to identify irrigated agricultural areas which are subject to erosion and have the potential to discharge sediment that may degrade surface waters. The report must also provide a description of the sediment and erosion areas as a series of ArcGIS shapefiles with a discussion of the methodologies utilized to develop the report (Order Attachment B, section VI).

Submittal

The SDEAR utilized the Revised Universal Soil Loss Equation (RUSLE) method in conjunction with a geographic information system (GIS) to estimate the long-term average annual soil loss potential for irrigated lands within the assessment zones. The RUSLE method was developed to estimate annual sheet and rill erosion due to rainfall. As part of the Construction Storm Water Program, the California State Water Resources Control Board has produced geospatial datasets approximating the combined slope-length factors and soil erodability factors to be used in the RUSLE model. In addition, the U.S. Department of Agriculture (USDA) has evaluated historical rainfall and soil data to produce a map of estimated rainfall erosivity factors throughout the state. Using these datasets, the Coalition estimated the annual average soil loss for parcels within the assessment area. An annual erosion potential of 5 tons/acre/year was used as a preliminary threshold to identify member parcels which may need a Sediment and Erosion Control Plan. The threshold is based on a benchmark used by the Natural Resources Conservation Service to sustainably maintain soil for long-term agricultural use.¹ The RUSLE modeling results were further refined using Coalition-defined criteria.

¹ USDA Natural Resources Conservation Service. 2010. From the Surface Down. An Introduction to Soil Surveys for Agronomic Use, Second Edition: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053238.pdf

Members with parcels in areas designated to be at risk for sediment discharges which may impact surface waters are required to complete a Sediment and Erosion Control Plan. Review of the shapefiles provided with the SDEAR shows that no Member parcels were determined to be at risk located within the identified area.

Recommendations

In general, the Coalition's approach to identify Member parcels subject to sediment discharge due to rainfall which may impact surface water quality in an assessed water body is reasonable. However, several items were identified as incomplete, and staff recommends a conditional approval until the following issues are addressed:

Item 1 – Assessment Methodology

The methodology proposed by the Coalition provides information regarding the relative potential soil loss due to precipitation events, but does not address the effect of irrigation practices on sediment discharge and erosion potential. The evaluation of factors other than rainfall is necessary to ensure the SDEAR accounts for all contributing sources of sediment discharge, and properly identifies the Member operations that are required to complete a Sediment and Erosion Control Plan. The most notable issue in the proposed assessment approach is that proximity to surface waters is not considered as a factor that increases the potential for discharge of sediments that may degrade surface water. All areas, including those estimated to have a potential for sediment erosion less than 5 tons/acre/year due to rainfall, should be evaluated for risk for sediment discharge based on the proximity to water bodies.

Item 2 – Waters of the State

The SDEAR states that canals and drains were considered as potential receiving water bodies in the evaluation, however based on the shapefiles provided with the report many surface waters within the Coalition area were excluded. Canals such as the East Side Canal, Main Drain, and West Side Canal are fed by numerous surface water bodies which receive tailwater drainage from irrigated lands and may be impacted by sediment discharges. Section VI of the MRP states that the goal of the report is to determine which areas within the Tulare Lake Basin Area are subject to erosion and may discharge sediment that may degrade surface waters. Surface waters are defined in attachment E of the Order, and include natural streams, lakes, wetlands, creeks, constructed agricultural drains, agricultural dominated waterways, irrigation and flood control channels, or other non-stream tributaries. All surface waters meeting this definition should be included in the assessment report.

Item 3 – Assessment Results

The SDEAR includes steps to further refine the RUSLE modeling results and excludes parcels based on Coalition-defined criteria. Parcels further than 500 meters from a surface water were determined to not have potential to impact surface waters due to the fact that discharges would be infiltrated or comingled before reaching surface water bodies. The report does not provide evidence to support the assumption that parcels further than 500 meters from waterbodies do not pose a risk for sediment discharge to surface waters, or that comingled discharges containing sediment may not potentially impact water quality. If justification cannot be provided,

the assessment area should be expanded sufficiently to evaluate all irrigated lands with potential to discharge sediment which may impact surface waters.

The model results provided in Figure 5 of the SDEAR were not included with the shapefiles submitted. The SDEAR should include a generalized assessment of parcels determined to be susceptible to erosion and sediment discharge which may impact surface waters, and should not be limited to parcels currently enrolled in the Coalition. While the Coalition is not responsible for non-Member parcels, additional lands may be enrolled in the future and become subject to the requirement to complete the Sediment and Erosion Control Plan.

Item 4 – Certification Statement

Section IX of the Order states that each person signing a report required by the Order must make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel or represented Members properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment for violations.”

The required certification statement was not provided with the SDEAR, and should be included in any future submittals to the Water Board.