

East San Joaquin Water Quality Coalition

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On September 1, 2004 the Central Valley Regional Water Quality Control Board (Regional Board) replied to responses to comments received from the East San Joaquin Water Quality Coalition (Coalition). In the reply, the Regional Board indicated that the Coalition's responses to comments are inadequate and that the Regional Board is not recommending approval of the WER and MRP plans at this time. The Coalition offers the following responses in an effort to bring the Coalition into compliance with the Conditional Waiver.

W-1 – Drainage and Discharge Locations.

By October 15, 2004 the Coalition will provide to the Regional Board maps or discussion that provides details of the watersheds showing which fields are served by each identifiable drain. The maps previously provided to the Regional Board will be revised to include watershed boundaries of the major watersheds within the Coalition region. Each sample location will be delimited and the subwatershed that drains to that point will be identified. Each subwatershed will be summarized by the number of acres in each crop type and will include a map or description of the general drainage patterns within the subwatershed with as much specificity on the location of drains as can be obtained by that time. Pesticide Use Reports (PUR) will be obtained and summaries of pesticide use by crop and subwatershed location for the current year will be developed. As PURs are filed with the County Agricultural Commissioners, they will be placed into the GIS maps and maintained for subsequent data analysis. Subsequent to submitting the map on October 15, the Coalition will obtain as much information as possible on the location of field-specific drains from other maps, aerial photography or interviews with growers. The coalition will use existing aerial photography (taken in 2002) although coverage is not complete for the Coalition region.

W-2 – Inventory of Management Practices; W-3 – Production Practices; W-8 – Management Practices.

The inventory of management practices in the coalition region is difficult and costly to develop but the Coalition will provide as complete a compilation of management and production practices as possible. The compilation will include the following elements: 1) identification of pesticides used in each identified subwatershed to be supplemented with finer scale resolution pesticide use as it can be developed through more recent PUR, 2) parcel-specific identification of relevant EQIP projects that can result in the reduction in the discharge of pesticides and other constituents to surface waters, 3) results of a questionnaire to growers requesting information on

the Best Management Practices (BMPs) in place on their parcels. Management practices will be assigned to a parcel and mapped into the Coalition GIS.

After an exceedance of a narrative or quantitative water quality standard is identified by water monitoring, source identification will be undertaken. As outlined in the August 13, 2004 response to comments, the Coalition will utilize the County Agricultural Commissioners as the "first line of defense" for investigation of pesticide use in a subwatershed where a pesticide exceedance occurs. In addition, the Coalition will develop an implementation plan to identify and track the progress of Management Practices within the Coalition region. This plan will address water quality issues related to the discharge of irrigation return flows separately from storm water discharges and will include a schedule for implementation of management practices that may include but is not limited to grower education, technical and financial assistance.

The WER and Supplement included a lengthy catalogue of available management practices for crops grown in the Coalition region. The Coalition will supplement this information with a listing of ongoing BMP demonstration programs in the region as they are developed. We will further provide information on funding opportunities within the Coalition region including state and federal funding through the EQIP program or others.

Currently, the Coalition has a BMP questionnaire in development that will be distributed to growers in the region requesting information on the specific BMPs in place for each field. As the data from this inventory becomes available, the Coalition will develop an Implementation Plan that will include a list of BMPs in place in the Coalition region and a description of the subwatersheds in which they apply. Identifying those BMP projects that are effective pollution control measures within each subwatershed will be tracked through the monitoring program and evaluation of the practices by the Coalition as well as through existing and proposed grant programs (e.g., EQIP). A list of additional BMPs and financing options will be maintained and provided to growers. Ongoing lists of existing projects and future projects will be identified and tracked by the Coalition and provided to landowners for their information.

The list of ongoing BMPs and the subwatersheds in which they apply will be provided by October 15, 2004. The list will be updated as information becomes available. For example, the questionnaire of BMPs for growers will be distributed at grower meetings with the County Agricultural Commissioner during the months of December through March and the results of those questionnaires will be placed into the GIS as soon as possible after they are obtained.

M-1 – Monitoring Sites.

Identification and documentation of additional monitoring sites to those described in the Coalition's April 1 submittal will be completed as soon as possible and will involve consultation with irrigation districts in the coalition area and Regional Board staff. All intermediate sized water bodies will be identified and their inclusion or exclusion as potential sample locations will be explained. The rationale for exclusion will include features such as urban inputs or minimal upstream agriculture. All sites excluded will be mapped and the watershed drained by the water body will be mapped. Representatives from the Coalition will meet with Regional Board staff to discuss these additional sites and will provide as much documentation as possible as to the crops

grown on the parcels and the chemicals applied. After discussion with Regional Board staff, the additional sites will be selected for monitoring.

It is anticipated that this additional analysis will result in several potential monitoring sites. To finance monitoring at an expanded number of sites, the Coalition will estimate the cost of sampling for the entire suite of sites and develop a per acre assessment to support the cost of sampling. If it is determined that the per acre assessment for Coalition members necessary to fully fund all monitoring is too great, a priority ranking of monitoring sites will be established in consultation with Regional Board staff. The highest priority sites will be monitored initially, and lower priority sites will be substituted for monitored sites in subsequent years. The rotation of sites will be established after consultation with Regional Board staff.

M-10 – Monitoring parameters.

The concern of the Regional Board is that the Coalition's plan for source identification will be inadequate to identify the sources of constituents responsible for water quality exceedances. There are two categories of constituents for which the Coalition must identify the source, pesticides and "naturally occurring constituents" such as conductivity, pH, temperature, dissolved oxygen, turbidity, and organic carbon. The former category of constituents can potentially be traced to a source using the PUR and an understanding of the drainage patterns in a watershed. The latter category will be extremely difficult to trace as constituents such as organic carbon can arise from every parcel in the watershed and could be a result of cumulative loadings from multiple sources.

Pesticides

Given the episodic nature of pesticide applications and the relatively continual need for irrigation in the Coalition region, the Coalition agrees that source identification is a difficult task. As required by the Conditional Waiver, any exceedances will be followed by a second sample to determine persistence. Given the time required for collecting water and running the tests, if the first follow-up sample indicates an exceedance, the following month's sampling will essentially be a second follow-up sampling. The Coalition believes that given the properties of chemicals applied to crops, a persistent signal could be the result of different applications on several fields (and several growers) rather than a single source. The Coalition believes that source identification can be effectively conducted using the procedure outlined in the August 13, 2004 response to comments. Essentially, the process involves examining all of the Pesticide Use Reports from upstream applications, identifying the applications that include the constituent responsible for the exceedance, confirming that the timing of the application coincided with the exceedance, locating the fields where the application took place, contacting the growers potentially responsible for the exceedance and providing the necessary input (e.g., education) as indicated by the County Agricultural Commissioner. The Coalition is concerned that given the small parcel nature of the Coalition region, an insufficient number of upstream samples can be collected to identify the source(s). The Coalition believes that assuming all of the applications could have resulted in exceedances will be an effective tool for improving water quality.

Natural constituents

Sources of naturally occurring constituents are difficult to assign because of 1) the potential for their existence in source water prior to delivery to growers, 2) the diffuse nature of potential

inputs from numerous fields within the region, 3) the potential for inputs from surface and subsurface flow, and 4) the potential for resuspension of some constituents (e.g., fine sediments and organic carbon) from within the channel itself. Consequently, identifying, managing and reducing inputs will be difficult. If monitoring indicates exceedances of natural constituents, the Coalition will work with the Regional Board staff to develop a strategy to accomplish source identification and source control of these constituents.

M-12 – QAPP

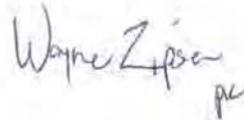
The QAPP was delivered to the Regional Board on September 2, 2004, and the Coalition is awaiting review of the document.

We look forward to discussing these responses with Regional Board staff. We encourage staff to allow us the opportunity to respond to problems and if necessary, further revise this submittal should they disagree with approaches described here or in previous responses.

Sincerely,



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cc: ESJWQC Board Members