East San Joaquin
WATER QUALITY COALITION
1201 L Street Modesto, CA 95354
www.esjcoalition.org

May 20, 2013

Mr. Daniel McClure
Senior Engineer
California Regional Water Quality Control Board - Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

Dear Mr. McClure,
The East San Joaquin Water Quality Coalition (ESJWQC) appreciates the opportunity to submit comments on the draft Amendments to the Basin Plan for the Control of Diazinon and Chlorpyrifos ("Draft Amendments") and the Draft Staff Report (March 2013) ("Draft Staff Report"). The ESJWQC also thanks the Regional Board for extending the deadline for comments to allow the Coalition time to complete its review and submit.

The ESJWQC has represented growers within portions of Stanislaus, Merced, and Madera counties since 2004 to ensure compliance with the Central Valley Irrigated Lands Regulatory Program (ILRP). The ESJWQC is conducting monitoring in the San Joaquin River to maintain compliance with the current San Joaquin River Diazinon and Chlorpyrifos TMDL (SJR TMDL). The Coalition developed an approved monitoring schedule that allows for an effective monitoring program to assess compliance with the SJR TMDL. The ESJWQC addresses the SJR TMDL in a report submitted annually in collaboration with the Westside San Joaquin River Water Quality Coalition.

The Coalition is responsible for implementing TMDL's that are a result of agricultural discharge including the proposed Central Valley Diazinon and Chlorpyrifos TMDL. The implications of the Draft Amendments are additional monitoring requirements due to proposed TMDLs within the Coalition group's region.

The ESJWQC endorses the arguments made in the letter from multiple agricultural and related organizations on the Draft Amendments and Draft Staff Report. The ESJWQC believes all of the issues covered in that letter need to be addressed by the Regional Board and the recommendations provided in that letter need to be incorporated into the Draft Amendment and Draft Staff Report prior to adopting a Basin Plan Amendment. The ESJWQC is particularly concerned with the application of the WARM and COLD beneficial uses to constructed agricultural drains and canals. Although there are locations within the Draft Staff Report that state that the application may not be appropriate, the evaluation of water quality data from agricultural drains is a large aspect of the water quality analysis and the determination of exceedances is based on the WARM and COLD criteria. The letter from the the agricultural and related organizations discusses the error of this analysis and the larger issue of the application of WARM and COLD criteria to constructed agricultural drains. Again, the ESJWQC fully supports all the points developed in that letter. In addition, the ESJWQC understands that the Regional Board is in the process of evaluating the application of aquatic life beneficial uses (including WARM and COLD) to agriculturally dominated water bodies and encourages the Regional Board not to adopt any

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language in Diazinon and Chlorpyrifos Draft Amendments that might compromise the effort in developing the former analysis.

The ESJWQC comments are divided into two sections; general comments on the Draft Amendments and Draft Staff Report, and specific comments on water bodies listed in the Staff Report as requiring TMDL's.

GENERAL COMMENTS

In Section 1.4 (e.g. Section 1.1.4) there are statements about increases or decreases in the annual average diazinon and chlorpyrifos use between December 2000 – November 2005 and December 2005 – November 2009. For example, on page 37, it is stated "Walnuts had an 18% increase and almonds had a 59% increase in annual average chlorpyrifos use between Dec00-Nov05 and Dec05-Nov09. For other crops with significant chlorpyrifos use in the Lower Sacramento River watershed (alfalfa, peaches, plums, and cotton), chlorpyrifos use in Dec05-Nov09 was significantly less than in Dec00-Nov05." It is unclear if the measurement being referred to, annual average, is an average of the annual use or an annual measure of the average use. The former statistic would be the only measure that would allow a comparison of two time blocks. It's not clear what average use is or how it could be measured in a way that would allow comparisons. In addition, because application rates vary across commodities with respect to the amount per application and the number of applications per year, and because the acreage of the commodities changed across the two time blocks, these comparisons regardless of the actual measure, are meaningless. During the 2000 – 2009 time period, the economic value of walnuts and almonds increased resulting in the removal of many orchards and row crops like peaches, plums, and cotton and the planting of almonds and walnuts. It's unclear if the increases and decreases in annual average chlorpyrifos use are simply a result of changes in the acreage of the various commodities or changes in the amount used on each acre of each commodity. A more informative measure would be the average per acre use (amount) of the two pesticides on each crop. This measure would allow an evaluation of whether the application rates are declining despite the increase in the total amount applied.

Tables 1-11 and 1-12 have a column called "4-day average Concentrations" but it is not clear what the numbers in the column represent. The column is not explained in the text or the table heading. To make the meaning clear, an explanation should be provided.

Page 54. There is a statement "To examine potential toxicity of combinations of diazinon and chlorpyrifos, the additive toxicity formula (Equation 1)…" Equation 1 is not a measure of toxicity but rather a measure of the chemical concentrations of two compounds relative to their water quality objectives. While the objectives were developed using criteria established by toxicity tests, Equation 1 does not directly measure or indicate toxicity. The language should be modified to reflect the actual meaning of the equation, chemical concentrations relative to their objectives, not toxicity.

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Page 83. There is a statement that "many of the water bodies that are not currently monitored and/or 303(d)-listed likely receive diazinon and chlorpyrifos discharges." The Draft Staff Report should restrict itself to statements of what is known rather than speculate about what may be occurring.

Section 6.1, Surveillance and Monitoring for Agricultural Dischargers, Page 158. Under Objective 2 (Determine compliance with load allocations), there is a recommendation to monitor water bodies downstream of discharges at the confluence of tributaries with the 303(d) listed water bodies. While this may be reasonable for diazinon and chlorpyrifos which are registered for use only by agriculture, this recommendation could be problematic if additional pesticides are required for monitoring at these locations to satisfy the requirement of Objective 5 (Determine whether alternatives to diazinon and chlorpyrifos are causing surface water impacts). Other pesticides are used in both urban and agricultural settings, and many of the confluence locations are downstream of both urban and agricultural uses. It would be difficult if not impossible to separate the applications and identify those applications in agricultural settings that may be contributing to downstream detections of alternative pesticides in surface waters. The ESJWQC recommends that the language be removed and replaced with a recommendation that the Coalition be allowed to develop a monitoring program that meets the objectives outlined in the Draft Staff Report.

Page 196. There is a statement, "The fact that many growers are already implementing these practices further indicates that these practices can be economically viable for growers in the Central Valley." The statement is referring to the implementation of management practices by growers to prevent the discharges of diazinon and chlorpyrifos. Unfortunately, this statement ignores the economic realities of farming. What one grower may be able to afford in no way reflects the ability of any other grower to afford the same or similar practices. Justifying the validity of a conclusion about the economic analysis based in part, on this rationale is not sound. This statement and rationale should be removed from the Draft Staff Report. The Coalition believes that growers should implement practices to eliminate discharges to surface water and groundwater, and that economics does not justify discharges that result in impaired beneficial uses. The ESJWQC works closely with growers to identify practices that growers can implement in a cost-effective manner but realizes that all growers are not able to implement the same practices due to economic constraints.

COMMENTS ON SPECIFIC WATERSHEDS

There are water bodies that should not be listed in the Draft Amendments for a TMDL for one or more of the following reasons:

1. Improved water quality since original listing,
2. No designated beneficial use, constructed or highly modified agriculture drain that does not discharge into a downstream water body,
3. No recent use of the listed chemical (diazinon and/or chlorpyrifos).

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ESJWQC Listed Water bodies

Berenda Creek

Listed for Chlorpyrifos

Berenda Creek is described in the Draft Amendments (1.5.3.2, page 72) as the following: "Berenda Creek flows from the foothills through agricultural lands and into the Eastside Bypass, which connects to the San Joaquin River."

This description in the Draft Staff Report is incorrect. Berenda Creek is a highly modified agricultural water delivery system utilized by the Madera Irrigation District. Water flows rarely flows from the foothills into this water way and a majority of the water is due to irrigation flows. Madera Irrigation District also uses this waterway to transport irrigation supply water (Figure 2). The creek ends at the boundary of the irrigation district where there are holding ponds. There is no drainage to the Eastside Bypass (Figure 2 and 3). Berenda Creek does not require a TMDL for chlorpyrifos since it does not drain into a downstream water body with a designated beneficial use and is a highly modified water body used for irrigation supply water.

Figure 1. Aerial view of Berenda Creek from the Madera Irrigation District's Interactive Map (http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=1702a26c65ba4c5487a20d93e37daced).

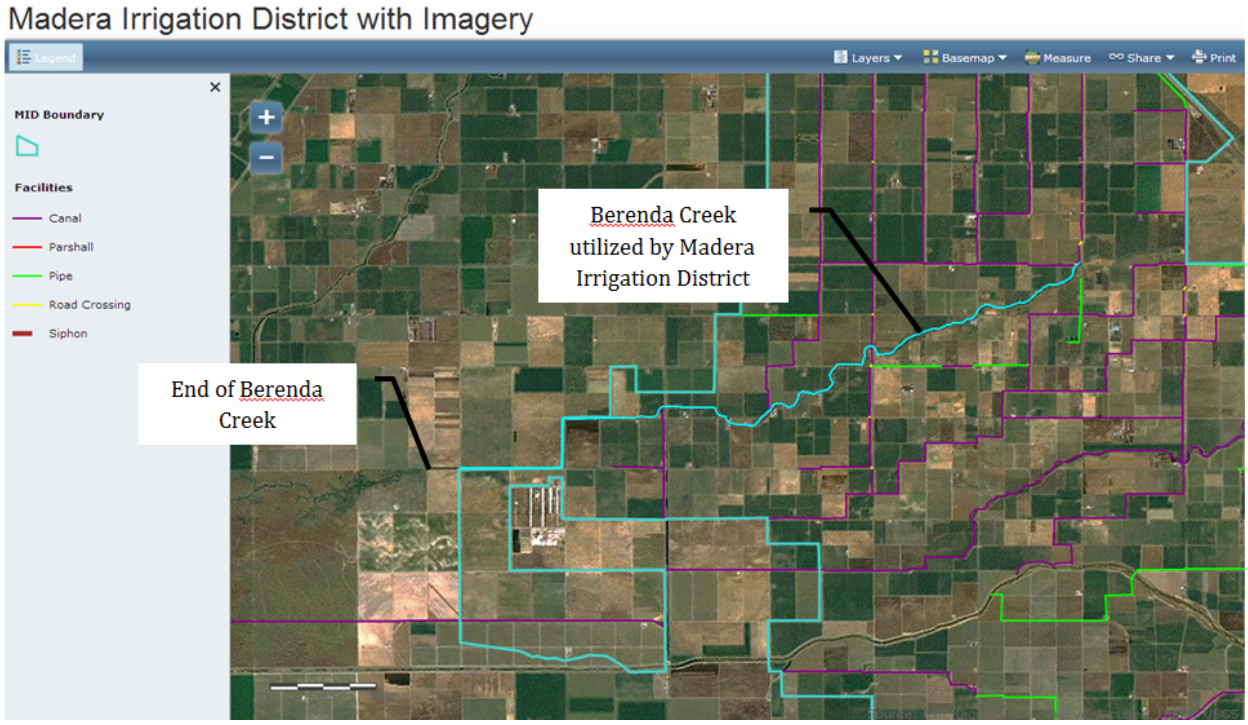

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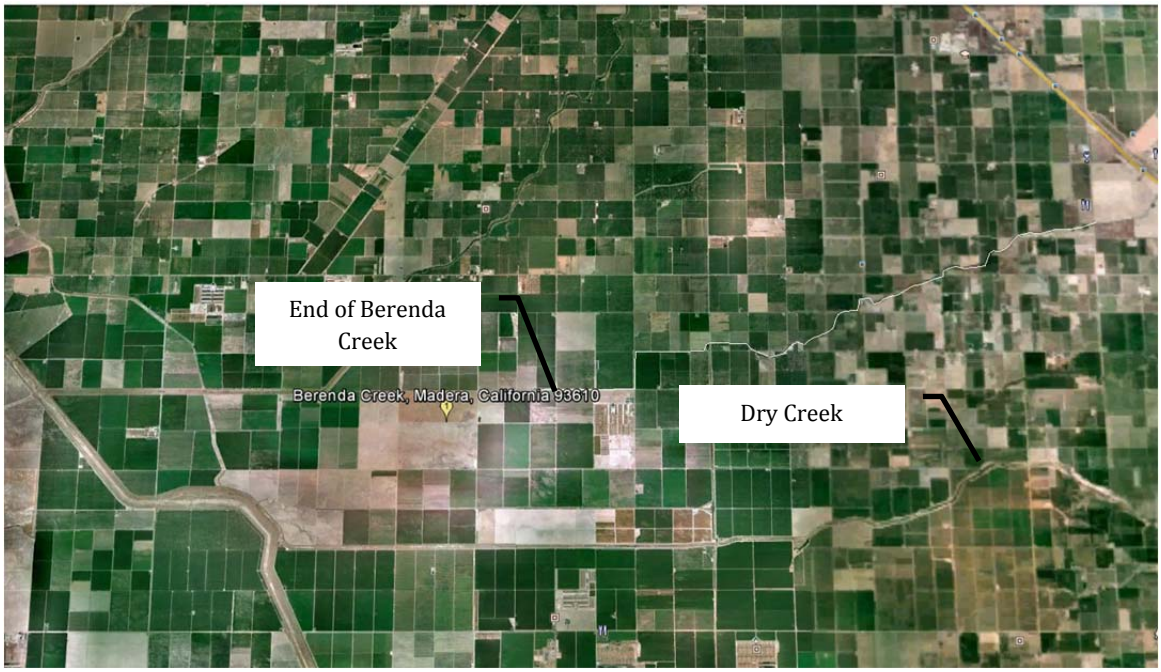
FIGURE 2. AERIAL PHOTO OF BERENDA CREEK FROM GOOGLE EARTH. BERENDA CREEK ENDS PRIOR TO REACHING THE EASTSIDE BYPASS.



ASH SLOUGH

Listed for Chlorpyrifos

The ESJWQC monitored chlorpyrifos at Ash Slough @ Ave 21 from 2005 through 2010. Exceedances of the WQTL for chlorpyrifos occurred 4 times, twice in 2005 and twice in 2006, resulting in Ash Slough being listed for chlorpyrifos in 2010 on the 303(d) list. Ash Slough is often dry; there were only two monitoring events from 2007 through 2010 during which water was available in Ash Slough to collect samples for chlorpyrifos analysis. The samples collected in May 2009 and in April 2010 were non detect for chlorpyrifos. In addition, PUR data indicate a decrease in chlorpyrifos applications and acres treated in the Ash Slough @ Ave 21 subwatershed since the most recent exceedance in 2006. The amount of chlorpyrifos applied within the subwatershed has decreased from 2006 (6,611 lbs AI across 3,853 acres) to 2010 (2,829 lbs AI across 1,821 acres). In May 2012 the Coalition was approved to remove chlorpyrifos from the Ash Slough @ Ave 21 active management plan. Ash Slough was visited 57 times from 2007 through 2010 to collect chlorpyrifos samples; the site was dry 55 times. Ash Slough does not require a TMDL for chlorpyrifos since there is rarely water in the water way and when there is water there has been no detections of chlorpyrifos.

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Dry Creek (Stanislaus County, tributary to Tuolumne River)

Listed for Chlorpyrifos and Diazinon

The ESJWQC monitored for chlorpyrifos at Dry Creek @ Wellsford Rd from 2005 through 2011 and conducted additional outreach with documentation of management practices as part of the ESJWQC Management Plan. Samples collected at Dry Creek @ Wellsford had concentrations that exceeded the WQTL for chlorpyrifos 8 out of the 49 times. The last exceedance occurred in July 2010 and the ESJWQC has demonstrated improved water quality in 2011 and 2012. The ESJWQC was approved to remove chlorpyrifos from the Dry Creek @ Wellsford management plan due to improved water quality (no exceedances), decreased use of chlorpyrifos and increase management practices by members of the ESJWQC. Dry Creek does not require a TMDL for diazinon since water quality has met the chlorpyrifos WQO for the last two years.

Samples were collected for diazinon analysis 43 times at Dry Creek @ Wellsford Rd from 2005 through 2012. No exceedances of the WQO for diazinon have occurred in the Dry Creek @ Wellsford Rd site subwatershed. The current PUR data indicate a decrease in diazinon use from 2005 through 2012; there were only three applications in 2010, two applications in 2011 and none in 2012. Dry Creek is listed on the 303(d) list due to monitoring that occurred in 2003 at Claus Road, Gallo Road and Avenue 21. The ESJWQC has analyzed more than the required 28 samples to demonstrate improved water quality and compliance with the WQO for diazinon. Dry Creek does not require a TMDL for diazinon.

Highline Canal (from Mustang Creek to Lateral No 8, Merced and Stanislaus Counties)

Listed for Chlorpyrifos

Highline Canal was 303(d) listed for chlorpyrifos in 2010 based on water quality data from samples collected in 2005 and 2006. The ESJWQC monitored for chlorpyrifos at Highline Canal @ Hwy 99 from 2005 through 2012. Five out of forty-three samples collected at Highline Canal @ Hwy 99 exceeded the WQTL for chlorpyrifos, the last exceedances occurred in July 2009. There were no exceedances for three (3) years from 2010 through 2012 and PUR data indicate the amount of chlorpyrifos applied within the subwatershed decreased significantly from 2007 (18,201 lbs AI) to 2011 (3,290 lbs AI June 2011). The Coalition received approval from the Regional Board to remove chlorpyrifos from the Highline Canal @ Hwy 99 management plan on May 30, 2012.

The ESJWQC monitored for chlorpyrifos at Highline Canal @ Lombardy Rd from 2005 through 2012. Fifty-eight samples of chlorpyrifos were collected at Highline Canal @ Lombardy Rd; 47 results were non detect and 6 of those samples exceeded the WQO for chlorpyrifos. There were no exceedances in 2011 and 2012.

The combination of improved water quality at both the Lombardy (upstream location) and Highway 99 (downstream location) for chlorpyrifos is the result of additional practices implemented by growers and reduced use of products containing chlorpyrifos. There have been at least two years of no detections of chlorpyrifos at both locations. Highline Canal does not require a TMDL for chlorpyrifos.

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MUSTANG CREEK

Listed for Chlorpyrifos and Diazinon

Mustang Creek was 303(d) listed for chlorpyrifos in 2010 based on data from 2005 and 2006. Mustang Creek (Mustang Creek @ East Ave) was monitored for chlorpyrifos and diazinon from 2006 through 2010 by the ESJWQC and is often dry. Exceedances of the chlorpyrifos WQO occurred during two ESJWQC storm events in 2008; there have been no exceedances of the diazinon WQO during the ESJWQC monitoring. Since 2008, the ESJWQC attempeted to collect samples from Mustang Creek 33 times; only 8 times was there water in the channel. There have been no detections of chlorpyrifos since February 2008 (8 samples collected) and the ESJWQC documented in its Management Plan Update Report additional management practices implemented by members. The ESJWQC received approval to remove chlorpyrifos from the Mustang Creek management plan on May 30, 2012 due to improved water quality. Water quality has improved in Mustang Creek since 2008 with no detections of chlorpyrifos over four years (2006, 2007, 2009, and 2010).

Mustang Creek does not require a TMDL for chlorpyrifos or diazinon.

Submitted respectfully,

Parry Klassen
Board Chairman
East San Joaquin Water Quality Coalition