



July 1, 2013

Mr. Joe Karkoski  
Program Supervisor  
Irrigated Lands Regulatory Program  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive  
Rancho Cordova, CA 95670

**Subject: California Rice Commission Irrigated Lands Regulatory Program – Corrective Actions in Response to Central Valley Regional Water Quality Control Board Letter Dated June 14, 2013**

Dear Mr. Karkoski:

Thank you for your review of the 2012 Irrigated Lands Regulatory Program Annual Monitoring Report (AMR) submitted by the California Rice Commission (CRC). You required the submittal of additional information to address missing information, and provide clarifications found in the review letter date June 14, 2012. This letter includes the results of our additional review, follow-up and corrective actions for the following items:

- Quality Assurance/Quality Control (QA/QC) Data for Hardness and Total Dissolves Solids (TDS)
- Data validation package for clomazone and triclopyr methods
- Correction of typo in toxicity results table.

Please note that your staff initiated communication with the CRC in January 2012. We waited to receive specific details in the review letter, which arrived six months later. The CRC should have been more proactive with follow through. When the letter arrived, we were well into the current monitoring season with a continuation of certain concerns from 2012.

The CRC is committed to providing quality data to the Central Valley Regional Water Quality Control Board (CVRWQCB). We will proceed through the current monitoring season, ending August 2013. You will find additional discussion and corrective action where applicable in the 2013 AMR. We will meet with our contractors and laboratories to add further refinement once the monitoring program is approved for 2014.

Upon your review, please confirm that this submittal satisfies the requirements for corrective action. It is a pleasure working with you and your staff.

Sincerely,

A handwritten signature in black ink that reads "Roberta L. Firoved". The signature is written in a cursive style and is contained within a white rectangular box.

Roberta L. Firoved  
Industry Affairs Manager

Enclosure

<b>Item 1:</b>	<b>QA/QC Data for LCS/LCSD for TDS</b>
<b>Discussion:</b>	<ul style="list-style-type: none"> <li>• <b>Missing Lab Quality Control (QC) Data:</b> As noted in the CVRWQCB staff review of our AMR, the lab reports for hardness (May and June) and total dissolved solids (all events) did not include QC data required by Section 14 of the Quality Assurance Project Plan (QAPP). Upon investigation, we determined that the lab did not complete these QC samples because it concluded these samples were not required by the method used and due to a misunderstanding over the wording “chemical analysis” in QAPP Section 14. The lab had not performed these the prior year either. Due to the lack of this laboratory control samples/duplicates (LCS/LCSD) information, we confirm that the data for these events should include the QC flag in the CEDEN data submittal.</li> <li>• <b>Methods:</b> The results provided by the lab for 2012 show that the method for hardness was SM2340B and the lab method for total dissolved TDS was SM2540C. It is noted that the Chain of Custody (COC) forms for the samples specified EPA 200.7 for hardness and SM2540C for TDS. The lab’s use of a hardness method other than that on the COC form is a deviation from standard practice. All of the methods used were provided for in the approved QAPP, so the methods are acceptable. However, discrepancies are noted in the QAPP tables (Tables 7-2, 7-3, 10-12, and 13-2) that may have led to confusion on the part of the field crew and lab, as well as to the LCS/LCSD issues noted above.</li> </ul>
<b>Corrective Action:</b>	<p>In response to the LCS/LCSD issues flagged during 2012, we will implement the following corrective action:</p> <ul style="list-style-type: none"> <li>• <b>Lab Follow-up:</b> We are in the process of determining if the currently contracted lab will provide the required QC samples for TDS and hardness, as specified in QAPP Section 14. If they agree, then effective for the July 2013 sampling date, the lab shall perform the required QC samples for TDS and hardness, as specified in QAPP Section 14. If they are not able to provide these QC samples, then all 2013 hardness and TDS data will need to the same QC flag. The lab selected for 2014 will be required to provide assurance that it will follow the QAPP required QC samples.</li> <li>• <b>Current Action:</b> The lab and the sampling crew have been informed regarding the necessary consistency between the QAPP, COC forms, and the provided analytical methods.</li> <li>• <b>2014 QAPP Revision:</b> We will correct inconsistencies among the tables specifying the methods, to provide improved clarity to the field and lab staff. We will also make the Section 14 QC requirements more clearly state “all analytical methods” in order to prevent confusion among lab staff.</li> <li>• <b>Implement QC Checklist:</b> The lab will be provided the checklist and requested to demonstrate attainment of the requirements with each sampling batch and our QA Officer will use the checklist for the immediate review of results upon their receipt. The checklist will be updated each sampling year to assure it is up to date relative to the specific requirements of the sampling season, and our QAPP revision will reflect the annual requirement for this practice.</li> </ul>

<b>Item 2:</b>	<b>Validation Data for Pesticides Sampling</b>
<b>Discussion:</b>	<p>The analysis of the two specified pesticides, clomazone and triclopyr, requires the laboratory to use a modified EPA method, since no EPA method is available for these pesticides. The use of modified methods requires submittal of a data validation per USEPA Guide to Method Flexibility EPA-821-D-96-004.</p> <p>The issue is that the data validation studies provided by the lab do not substantiate the extremely low Method Detection Limit (MDL) and Reporting Limit (RL) that the lab included in their reporting of the results for the environmental samples. The MDL and RL are reported lower than the bottom of the calibration ranges included in the lab's calibration reports. Due to the reported calibration range, the lower MDL/RL is not supported by the data validation package. The higher MDL/RL that would be supported by the data validation package would still be low enough to assess toxicity threats to water quality posed by these chemicals.</p> <p>For the 2012 data, we confirm that the data should be entered into the CEDEN database with the QC flag, as the lab validation package does not support the lower MDL/RL.</p>
<b>Corrective Action:</b>	<ul style="list-style-type: none"><li>• In response to the pesticide QA/QC issues flagged during 2012 season, the we will complete the following corrective actions:</li><li>• <b>Revised 2012 lab reports:</b> We have requested that the laboratory, California laboratory Services (CLS), provide revised lab results sheets that reflect the MDL/RL is supported by the calibration efforts. We are awaiting these and will submit the revised reports to the CVRWQCB immediately upon our review and confirmation of the adequacy of the reports.</li><li>• <b>QC Actions, if pesticide monitoring is included in 2014:</b> Prior to the initiation of the next season to include monitoring of pesticides, the CRC manager and consultants will hold a chartering meeting with the selected pesticides laboratories to confirm that all required data validation packages are prepared and submitted prior to analysis of environmental samples. The data validation packages will be specified to include MDL studies, initial precision and recovery using their procedure, and linear calibration ranges. The MDL and RL for each pesticide to be analyzed via modified USEPA method will be identified in consultation with the CVRWQCB staff. The data validation package will be submitted to the CVRWQCB staff prior to monitoring, for confirmation of the acceptability of the package as compared to the QC requirements.</li></ul>

<b>Item 3:</b>	<b>Sediment Toxicity Results Typo Correction</b>																								
<b>Discussion:</b>	A typographical error was included in our AMR table 5-16. The percent survival compared to control for SSB is 100%, not 0%.																								
<b>Corrective Action:</b>	<p>The updated table is included below:</p> <p><b>Table 5-16 (REVISED)</b>  <b>September <i>H. azteca</i> Sediment Toxicity Results, 2012</b></p> <table border="1"> <thead> <tr> <th>Site</th> <th>Mean Percent Survival</th> <th>Percent Survival Compared to Control</th> <th>TOC (mg/kg)</th> </tr> </thead> <tbody> <tr> <td>Control</td> <td>95</td> <td>--</td> <td>--</td> </tr> <tr> <td>BS1</td> <td>97</td> <td>102</td> <td>7600</td> </tr> <tr> <td>CBD5</td> <td>92</td> <td>97</td> <td>6100</td> </tr> <tr> <td>CBD1</td> <td>97</td> <td>102</td> <td>6200</td> </tr> <tr> <td>SSB</td> <td>95</td> <td>100</td> <td>5900</td> </tr> </tbody> </table>	Site	Mean Percent Survival	Percent Survival Compared to Control	TOC (mg/kg)	Control	95	--	--	BS1	97	102	7600	CBD5	92	97	6100	CBD1	97	102	6200	SSB	95	100	5900
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