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Via Electronic Mail Only

Pamela Creedon
Executive Officer
Central Valley Regional Water Quality Control Board
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RE: Comments on Tentative WDRs for Growers Within the Eastern San Joaquin River Watershed

Dear Ms. Creedon:

The East San Joaquin Water Quality Coalition (ESJWQC) appreciates the opportunity to work with you and your staff on the development of the tentative Waste Discharge Requirements General Order for Growers within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group (Draft WDR), and its associated attachments, which include as follows: Attachment A to Order R5-2012-XXXX, Information Sheet (Draft Information Sheet); Attachment B to Order R5-2012-XXXX, Monitoring and Reporting Program (Draft MRP); Attachment C to Order R5-2012-XXXX, CEQA Mitigation Measures; Attachment D to Order R5-2012-XXXX, Findings of Fact and Statement of Overriding Considerations; Appendix MRP-1, Quality Assurance Project Plan Requirements (Draft MRP-1); Appendix MRP-2, Management Plan Requirements (Draft MRP-2); and Appendix MRP-3, Monitoring Well Installation and Sampling Plan (Draft MRP-3). As you know, the ESJWQC is the existing third-party assisting growers in the Eastern San Joaquin River Watershed area, and as of this writing the entity that will submit a Notice of Intent to continue as the third-party to assist its Members in this watershed area.

Our comments are organized to address the following key issues:

- Members of the Third-Party
- Determination of Member Compliance with Terms of the Order by the Third-Party
- Annual Nitrogen Budget Requirements
- Farm Evaluation Reporting
- Surface Water Toxicity Testing Requirements

- Approach to Surface Water Monitoring
- New Pesticide Monitoring and Development of Trigger Limits
- Groundwater Representative Monitoring
- Groundwater Quality Management Plan Triggers
- Timing of Certain Requirements
- Time Schedules for Compliance

In addition to the primary issues addressed here, additional comments and proposed corrections are provided in Attachments 1, 2, and 3 to this letter.

A. Agricultural Producers Regulated Under This Order

As indicated in Finding 10 of the Draft WDR, the Draft WDR would apply to both landowners and operators of irrigated lands within the Eastern San Joaquin River Watershed area. It also states that both landowners and operators must be Members of the third-party. The ESJWQC does not oppose the fact that the Draft WDR is applicable to both. However, the ESJWQC is concerned that both landowners and operators would need to be Members of the third-party. To ensure compliance with the provisions in the Draft WDR, it is not necessary for both to be Members. Instead, the ESJWQC recommends that either the landowner or the operator must be a Member, a decision left solely to the two entities. By allowing either to be a Member, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) will be assured that the irrigated land is covered by the WDR, which is the primary concern. Further, where the operator and landowner are different entities, it is often more appropriate that the operator of the irrigated lands be the Member of the third-party as they will have primary responsibility for complying with the terms of the WDR, and reporting appropriate information to the third-party.

However, to the extent that the Central Valley Water Board wants to ensure that landowners are fully aware that they are also subject to the terms of the WDR, we recommend that a provision be added to the Draft WDR that requires the Member, when the Member is not the landowner of the property, to notify the landowner of the WDR once it has been adopted and of its provisions. The Member can then certify to the ESJWQC that the landowner has been properly notified. We do not believe it to be necessary for the operator to obtain any form of written acknowledgment from the landowner as long as they certify that they have provided the landowner with notification of the requirements.

B. Determination of Member Compliance with Terms of the Order by the Third-Party

Throughout the Draft WDR, there are several findings and provisions that suggest the third-party will need to verify individual Member compliance with terms and conditions of this order, including determining if individual Members are in fact in compliance with water quality objectives.

(See, e.g., Draft WDR Finding 23, p. 5; Finding 24, p. 6; and, Permit Provision IV.C.10, p. 18.) As the entity that will implement the third-party provisions of this order, the ESJWQC is concerned with the collective impact of these provisions. As currently proposed, it appears that the ESJWQC could be put in the position of inspecting and monitoring individual Member discharges from irrigated agricultural operations to surface waters and groundwater. The ESJWQC does not believe this to be an appropriate role for the third-party. As indicated in the Draft WDR, the role of the third-party is to assist Members and to be responsible for fulfilling regional requirements, which include monitoring, development of regional or watershed-based water quality management plans, and tracking Member compliance with certain identified management plan and reporting requirements. (See, Draft WDR Finding 12, p. 3) The third-party does replace the role of the Central Valley Water Board and has no legal standing to determine if an individual Member's discharge is in compliance with water quality standards.

Further, the Draft WDR includes provisions to suggest that the Central Valley Water Board may require the ESJWQC to conduct site-specific field studies of an identified Member's operation. (See Draft WDR, pp. 18, 25-26; Draft MRP-2, p. 9.) The ESJWQC is opposed to such provisions. If the Central Valley Water Board determines that individual site operations need to be monitored, then the Central Valley Water Board's Executive Officer has the authority to issue an inspection and monitoring order directly to the Member under Water Code section 13267. Such a directive or order to the ESJWQC is inappropriate as it would require the ESJWQC to divert its resources and funding that is collected to meet regional requirements to be expended on one individual. Moreover, the ESJWQC contends that such an order issued to the ESJWQC would not comply with Water Code section 13267. Water Code section 13267 specifically provides the Central Valley Water Board with the authority to "investigate the quality of any waters of the state within its region." (Wat. Code, § 13267(a).) In doing so, the statute further provides the Central Valley Water Board with the authority to require "any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge . . . [to] furnish, . . . technical or monitoring program reports which the regional board requires." The ESJWQC is **not** a discharger, thus the Central Valley Water Board cannot compel the ESJWQC to furnish technical or monitoring reports, except to the extent as agreed upon by the ESJWQC. Moreover, under this statutory authority, "the burden of the report, including costs of these reports, must bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." (Wat. Code, § 13267(b)(1).) Here, the burden on the ESJWQC to monitor and prepare reports on an individual farm basis would not be reasonable. As indicated above, the role of the third-party is to conduct regional or watershed-based monitoring, conduct education and outreach, and develop and implement watershed or subwatershed water quality management plans. To support these efforts, the ESJWQC assesses all of its Members in an equitable manner. Requiring the ESJWQC to use its limited resources to monitor an individual farm would not be a reasonable use of funds, and it would deflect limited resources from its watershed and subwatershed obligations to inspect just a few. Based on these concerns, the Central Valley Water Board needs to remove these provisions from the Draft WDR.

To the extent that the ESJWQC has developed a water quality management plan that includes the need for field studies to verify the effectiveness of management practices, then such studies may be appropriate. But in all cases, the use of field studies must be at the discretion of the ESJWQC – not mandated by the Central Valley Water Board. All other references with respect to requiring the ESJWQC to determine compliance with water quality standards for individuals and to mandate the ESJWQC to conduct field studies must be deleted from the Draft WDR. Accordingly, the Central Valley Water Board

must revise Draft WDR Findings 23 and 24, Permit Provision IV.C.10, Permit Provision VIII.J, and any other conforming changes.

C. Annual Nitrogen Budget Requirements

The ESJWQC does not generally oppose the Annual Nitrogen Budget requirements in the Draft WDR. However, the ESJWQC has significant concerns with the nitrogen budgeting provisions as proposed. First, in developing the draft provisions with respect to the annual nitrogen budget process, the ESJWQC provided specific language to the Central Valley Water Board outlining the process, the annual reporting provisions, and the appropriate context for such requirements. The information and language provided by the ESJWQC has not been included in the Draft WDR. Specifically, the ESJWQC provided the following language for inclusion in the Draft WDR:

[t]he third-party will aggregate information from Final Annual Nitrogen Budget Worksheets to adequately characterize the input, uptake, and loss of nitrogen fertilizer applications by specific crops for the significant crops in the Eastern San Joaquin River Watershed. This information may include a summary of nitrogen consumption ratios by crop or other equivalent reporting units. The ratio is an estimate of anticipated crop consumption in comparison to total applied nitrogen through sources including fertilizers, manures, composts, nitrates in irrigation supply water and other sources. However, appropriate ratios vary from crop to crop, and need to account for site-specific conditions. Ratios shall be used as a tool to inform the third-party and its members with respect to the need for new and/or additional management practices; ratios are not, and shall not be used as a regulatory end-point for determining compliance with water quality standards, or the terms of this Order.

This language has not been included as part of the annual report requirements for the third-party, or in any finding within the Draft WDR. To ensure that the annual nitrogen budget is put into the proper context with respect to this order, language such as this is essential for inclusion in both the Draft MRP and in the Draft WDR. With respect to the Draft MRP, we recommend that this language replace the existing language on page 24 of the Draft MRP for Report Component (17), beginning with the sentence, "this information."

With respect to the Draft WDR, the ESJWQC recommends that Finding 47 be revised as follows:

This Order requires that the third-party, in consultation with CDFA and other specified agencies, develop a template for an annual nitrogen budget worksheet. The annual nitrogen budget worksheet may include the calculation of a nitrogen consumption ratio. The ratio as calculated on the annual nitrogen budget worksheets is an estimate of anticipated crop consumption in comparison to total applied nitrogen through sources including fertilizers, manures, composts, nitrates in irrigation supply water and other sources. Ratios are tools to be used to inform the third-party and the Members with respect to the need for new and/or additional management practices; ratios are not, and shall not be used as regulatory end-point for determining compliance with water

quality standards, or the terms of this Order. Members in vulnerable groundwater areas must use the template to develop nitrogen budgets

Second, the ESJWQC has concerns with the reporting requirements as proposed for the third-party for the Summary of Annual Nitrogen Budgets. (Draft MRP, p. 24.) In addition to needing to include the language identified above, the ESJWQC does not support the requirement that would require the third-party to “provide the data used to develop this summary in an electronic format, compatible with ArcGIS, identified to at least the square-mile (TRS) level.” This requirement would essentially result in the specific identification of nitrogen use by individual Members, and such information would become a public record. The ESJWQC understands that Central Valley Water Board staff may need to evaluate Member specific information. Accordingly, the Draft WDR requires the Member to maintain copies of the annual nitrogen budget worksheets at the Member’s farming operations, and requires the Member to make such documents available to Central Valley Water Board staff should they conduct an inspection of the Member’s operation. Further, the ESJWQC is willing to make such documents available to Central Valley Water Board staff at the ESJWQC’s place of business. However, the primary concern is the public availability of such Member-specific information. Other members of the public may attempt to use this information inappropriately in a manner that could be harmful to the individual Members and agriculture in general. Further, and as explained previously, the information in the annual nitrogen budget worksheets are tools to assist the ESJWQC in its outreach efforts. Submittal of such information to the Central Valley Water Board, or in any format that is likely to publicly identify individual growers, defeats the purpose and usefulness of the information provided. In lieu of the square mile reporting requirements proposed, the ESJWQC instead would be willing to consider the reporting of nitrogen balance sheet information by pre-determined areas based on geography, watershed, subwatersheds, or subbasins.

Third, the ESJWQC is concerned that the pre-determined categories of individuals eligible to prepare proposed annual nitrogen budget worksheets are too limiting. The ESJWQC recommends that this list be expanded to include others, including growers, if they have obtained a nitrogen management certification from the California Department of Food and Agriculture (CDFA). The specifics of the nitrogen management certification should be developed and determined by CDFA.

Please be assured that the ESJWQC understands the Central Valley Water Board’s need to be sure that Members are properly considering and managing nitrogen applications on the farm in order to protect vulnerable groundwater areas specifically, and to protect surface and groundwater in general. To that end, the ESJWQC anticipates conducting significant outreach and education on this issue in conjunction with associated water quality management plans. However, the public reporting of individual Member’s nitrogen use does not further the Central Valley Water Board’s purpose of ensuring that Members are implementing effective management practices to protect surface and groundwater. More appropriate for such purposes are the development of water quality management plans when triggered, annual nitrogen budgets submitted to the ESJWQC, compilation of that information into useful reports, and continued education and outreach.

D. Farm Evaluation Reporting

Like with the annual nitrogen budget summary reporting requirement, the ESJWQC is concerned with Annual Report Component (18) – Summary of Management Practice Information. (Draft MRP, p. 24.) As proposed, the ESJWQC would be required to provide the Farm Evaluation data “in an electronic format, compatible with ArcGIS, identified to at least the square-mile section (TRS) level.” (*Ibid.*) The ESJWQC sees little value in providing Farm Evaluation information on such a scale. The compilation of such information on a watershed or subwatershed basis is more informative as it then is correlated with water quality issues of concern versus just being an accounting of management practices being implemented. More importantly, the administrative burden and cost of compiling such information would be excessive on the ESJWQC, especially as compared to any need for such a compilation of information. Further, where there are water quality issues of concern, the ESJWQC already compiles management practice information in those subwatersheds. Thus, the reporting of additional information is duplicative and provides no useful information. Instead of spending limited resources annually on reporting to this scale, the ESJWQC believes it more appropriate to spend resources implementing water quality management plans where necessary.

E. Surface Water Toxicity Testing Requirements

As currently drafted, the Draft MRP would require all toxicity testing to follow the US EPA chronic toxicity testing methods. (Draft MRP, p. 10.) The ESJWQC is opposed to chronic toxicity testing for several reasons. First, chronic toxicity testing is significantly more expensive than acute toxicity testing, which is the current requirement. Specifically, implementing chronic water column toxicity testing for *Ceriodaphnia dubia* and *Pimephales promelas* will result in an increase in toxicity costs of two times the current acute toxicity testing costs. All costs will double including the initial toxicity test of the sample, the reference toxicity tests, and any subsequent toxicity identification evaluations (TIEs). Based on current ESJWQC toxicity testing costs for three species (algae, fat head minnow, and water flea), the increase in costs for a single sample will be \$3,250. If a TIE is required, the cost increase is estimated to be \$2,780 for each TIE. These increases are in addition to the current costs associated with toxicity testing. Assuming that the ESJWQC would conduct toxicity tests for 12 months at 6 sites under the Draft MRP, the increase in costs are estimated to be a minimum of \$234,000 annually when compared to current toxicity costs. The addition of TIEs and additional sampling to meet management plan requirements increases this amount further. The ESJWQC estimates that if chronic toxicity testing is required, the toxicity analytical cost would increase from \$381,000 to \$690,000 annually. This increase in cost directly contradicts the surface water monitoring discussion contained in the Information Sheet, which claims that changes are being made “to improve the cost-effectiveness of the surface water monitoring effort.” (Draft Information Sheet, p. 7.)

Second, for this program there is no scientific or technical reason that would justify the significant increase in cost for the change from acute toxicity testing to chronic toxicity testing. As discussed further below, the Draft MRP will require chemical-specific monitoring in ambient surface water. The cost of analysis for the multiple new chemicals (that are ultimately agreed upon as being appropriate) will result in a substantial increase in the cost of chemical analysis. The Draft WDR also requires for those chemicals, the development of trigger limits that are protective of aquatic life. A trigger limit is likely to be set at a sufficiently low concentration to account for chronic effects to the

most sensitive organisms. Monitoring for specific chemicals in surface waters coupled with the establishment of appropriate trigger limits will be protective of aquatic life in waterways of the Eastern San Joaquin River Watershed. Requiring chronic toxicity testing will not provide additional protection above that already provided by agreed upon chemical-specific monitoring and the establishment of trigger limits. Acute toxicity testing is sufficient to identify additional contaminants such as ammonium that could cause toxicity but are not discharged from irrigated agriculture. Moreover, the Draft WDR, the Draft MRP, and the Information Sheet provide no reason or basis for the proposed change. Thus, chronic toxicity testing requirements must be removed.

We understand from recent conversations with Central Valley Water Board staff that this requirement is likely to be removed. Instead of including a requirement here, the Central Valley Water Board staff would defer this issue to a Technical Issues Committee (TIC) that is formed to address such issues. The ESJWQC would support this approach.

F. Surface Water Monitoring Strategy

The ESJWQC estimates that the cost of the new monitoring and reporting program for surface water as outlined in the Draft MRP is substantial. The ESJWQC does not believe that this increased cost is appropriate considering the substantial progress that the ESJWQC has made in eliminating the discharge of agricultural waste through its implementation of water quality management plans and substantial outreach and education efforts to all ESJWQC Members. Accordingly, the ESJWQC finds that it is more appropriate to use a representative monitoring approach for surface waters to further advance its effective outreach efforts. For example, the ESJWQC would envision a process where monitoring would occur at the core sites, and if applied chemicals are detected at levels of concern in surface water at the core sites, then monitoring for the specific constituents would be initiated in targeted representative monitoring sites in that zone during the next year. If those chemicals are detected at levels of concern at the representative sites, appropriate management plans would be developed for those representative watersheds for those applications.

The ESJWQC's outreach strategy for specific exceedances that require management plans would continue. The ESJWQC's current approach involves identifying crops that use the specific constituent and growers that applied or could apply the specific chemical, and where the chemical could be discharged (e.g., drift) into adjacent or near-by surface waters. The ESJWQC then targets those growers for individual discussions with ESJWQC representatives who review the farming operation and recommend management practices, if appropriate. Because monitoring data are critical for that process, monitoring would be conducted at all appropriate representative sites if exceedances are found at core sites. However, rather than waiting two to four years before initiating monitoring and then another year or two before initiating outreach, the proposed plan involves monitoring in appropriate representative watersheds for the constituent of concern once it has been detected above appropriate trigger limits more than one time in a three-year period at the core monitoring location. The ESJWQC believes this will result in a more responsive and effective monitoring and outreach program for eliminating the discharge of chemicals into surface waters.

To address this change in approach, the ESJWQC has provided proposed language changes to the Draft MRP. This language is reflected in Attachment 3 to this letter.

G. New Pesticide Monitoring and Development of Triggers

The ESJWQC has significant concerns with the proposed new surface water monitoring requirements with respect to pesticides and development of trigger limits. (Draft MRP, pp. 7, 27.) The Draft MRP would require the third-party (i.e., ESJWQC) to identify what pesticides should be monitored for each individual site, using pesticide use information and previous monitoring results. Specifically, the third-party would be required to identify all pesticides applied or detected during the previous three-year pesticide use report (PUR) evaluation period, and would then require the third-party to monitor for all pesticides “(currently registered for use) that have been applied and/or detected in a site subwatershed area during all or part of three consecutive years of PUR data.” (Draft MRP, p. 7.) To avoid monitoring for *any* pesticide that fits these criteria, the third-party must demonstrate that an exemption is warranted. (*Ibid.*) Such an exemption request must be part of the Monitoring Parameter Report that must be approved by Central Valley Water Board staff. (Draft MRP, p. 8.)

The ESJWQC contends that it is inappropriate for the ESJWQC or the Central Valley Water Board to identify what pesticides are appropriate for water quality monitoring because they pose threats to aquatic life, or other beneficial uses without, at the very least, consulting with the Department of Pesticide Regulation (DPR). In California, DPR has primacy with respect to pesticides, and the Central Valley Water Board needs to work with DPR to identify which pesticides may be of concern to water quality and beneficial uses of the receiving waters.

Specifically, the California Legislature has declared that DPR has exclusive jurisdiction with respect to registration and use in California. (Food & Ag. Code, § 11501.11(a) [“This division and Division 7 are of statewide concern and occupy the whole field of regulation regarding the registration, sale, transportation, or use of pesticides to the exclusion of all local regulation.”].) Further, DPR conducts an extensive review and evaluation of all pesticides before they are registered for use in California. As part of this review and evaluation, DPR must evaluate the health and environmental effects of a pesticide before it is registered for use in California. (Food & Ag. Code, § 12811, et seq.) This includes, but is not limited to, the following: evidence of chronic health effects such as carcinogenicity; potential for environmental damage, including interference with the attainment of applicable environmental standards (e.g., air quality standards and water quality standards); toxicity to aquatic biota and wildlife; analytical methods; and, feasible alternatives. (Food & Ag. Code, § 12825; Cal. Code Regs., tit. 3, § 6158.) If any of these factors result in significant adverse impacts that cannot be avoided or adequately mitigated (i.e., addressed through use and label restrictions), then registration will not be granted unless the benefits of registration clearly outweigh the risks. (*Ibid.*) To conduct this review, DPR requires the registrant to submit extensive data and information with respect to the factors that must be considered. In other words, DPR’s registration process evaluates the environmental impact that a pesticide may have on water quality, including impacts to aquatic life.

In addition to its registration and evaluation process, DPR has a robust and extensive Surface Water Protection Program (SWPP). The goal of DPR’s SWPP is to characterize pesticide residues in surface water, identify the mechanisms and sources of off-site movement, and develop site-specific mitigation strategies. DPR achieves these goals through surface water monitoring and research. As part of this program, DPR’s SWPP scientists evaluate and develop computer modeling tools to evaluate new

pesticides, assess pesticide runoff potential, exposure and impact to aquatic organisms, and the efficacy of mitigation measures for registered pesticides.

Because DPR has already considered impacts to water quality, and has evaluated significant information with respect to these impacts, the ESJWQC contends that DPR is the appropriate agency to work with the Central Valley Water Board to determine what pesticides might be appropriate for monitoring as part of the Central Valley Water Board's irrigated lands program. By engaging with DPR, the Central Valley Water Board and the ESJWQC will be able to benefit from the extensive work already conducted by DPR's scientists and US EPA, and will be able to avoid duplication of efforts and costs.

Moreover, the costs to the ESJWQC for developing an annual list of pesticides and monitoring for those pesticides would be extensive. Many of the new pesticides used in the Eastern San Joaquin River Watershed that are at issue are recently registered, and the extensive background information necessary to evaluate risk to aquatic life is not publicly available. Thus, to research and obtain this information, the estimated cost for developing the process to evaluate annual pesticide use, evaluate risk to aquatic life, and determine if the active ingredient should be monitored is estimated to be \$15,000. In addition, the ESJWQC would need to obtain and review other key information such as partitioning coefficients, LC or EC50s, half life, and solubility, which would cost an estimated \$8,000 a year. Further, it is estimated that approximately five active ingredients may be identified yearly for analysis, and that these new pesticides are unlikely to have an approved US EPA analytical method. In this situation, the costs of method development and the analysis of one sample for five new method/analyte combinations is \$35,000. The \$35,000 includes \$6,400 for the method development for each method and assumes an analytical cost of \$400 per sample. Based on the above estimates, and assuming that the five active ingredients identified would be sampled at least three times at a minimum of one location on an annual basis, it is likely that the costs to the ESJWQC would be approximately \$128,000 to develop the process to evaluate pesticide use and risk, conduct the first annual review of data and select the pesticides to monitor, fund method development, and analyze five new active ingredients.

Accordingly, the ESJWQC recommends that the Draft MRP be amended to remove the proposed monitoring parameters language and that it be replaced with language that suggests that the Central Valley Water Board, in conjunction with the third-party and other third-parties, will work with DPR to develop a process for identifying which pesticides are appropriate for surface water quality monitoring as part of the long-term irrigated lands program.

With respect to the development of triggers (Draft MRP, p. 27), the ESJWQC also has significant concerns. The Draft MRP would require the third-party to propose trigger limits through the Monitoring Parameter Report process. Trigger limits would be required for all monitored parameters that are scheduled for monitoring that do not have a Basin Plan numeric water quality objective. As discussed in the Draft Information Sheet, the establishment of trigger limits would be done by following the *Policy for Application of Water Quality Objectives*, as contained in the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Sacramento-San Joaquin Basin Plan). The ESJWQC's concerns are as follows.

First, the Draft Information Sheet incorrectly states that the Central Valley Water Board must establish limitations by interpreting narrative objectives in accordance with 40 Code of Federal Regulations section 122.44(d)(1)(vi)(A), (B) or (C). The cited section in the Draft Information Sheet applies to regional water boards when they are establishing water quality-based effluent limitations for point sources of pollution under the federal NPDES permit program. Discharges from irrigated agriculture are (1) NOT point sources of pollution; (2) NOT subject to the federal NPDES permit requirements; and, (3) NOT subject to these provisions of the federal regulations. (33 U.S.C. § 1342(l); 40 C.F.R. § 122.3(e), (f).) Further, the establishment of trigger limits is not equal to setting water quality-based effluent limitations. Trigger limits apply to waters of the state, not the discharge itself. Any reference to the establishment of discharge limitations based on federal law or otherwise must be removed from the Draft Information Sheet, and any other portion of the draft documents.

Second, with respect to the *Policy for Application of Water Quality Objectives*, the Central Valley Water Board must be mindful that this policy applies to the Central Valley Water Board's determination of evaluating compliance with narrative water quality objectives. (Basin Plan, p. IV-17.00.) When interpreting compliance with water quality objectives pursuant to this Policy, the Central Valley Water Board must "consider, on a case-by-case basis, direct evidence of beneficial use impacts, all material and relevant information submitted by the discharger and other interested parties, and relevant numerical criteria and guidelines developed and/or published by other agencies and organizations . . ." (*Ibid.*) As indicated in the language of the Basin Plan, it is the Central Valley Water Board's responsibility to evaluate compliance. In contrast, the Draft MRP would require the third-party to propose trigger limits to interpret narrative water quality objectives, and would require the third-party to provide technical justification. While it may be appropriate for the third-party to provide relevant information at its discretion, mandating that the third-party identify such limitations with technical justification is inconsistent with the Basin Plan's Policy. Further, the identification of trigger limits and development of appropriate technical justification is an extensive and expensive process. It requires considerable research and evaluation of available literature. It is inappropriate to place this burden on the ESJWQC.

Instead, with respect to pesticides, the ESJWQC recommends that the Central Valley Water Board consult with DPR to identify trigger limits applicable to pesticides that have no adopted numeric water quality objectives. As discussed above, DPR and US EPA conduct extensive evaluations of a product's potential significant adverse effects at the time of registration and have extensive information and knowledge with respect to individual pesticides. It would be duplicative for the Central Valley Water Board or the ESJWQC to conduct such extensive evaluations that have already been done by DPR and US EPA through their registration processes. Accordingly, the Draft MRP must be revised to remove the trigger limit development requirements. (See Draft MRP, p. 27.) In lieu of this language, the ESJWQC recommends that the Central Valley Water Board defer to a process in coordination with DPR for the development of such trigger limits.

H. Groundwater Representative Monitoring

The Draft MRP includes requirements for a Representative Groundwater Monitoring Program (RGMP). (Draft MRP, pp. 16-18.) The stated purpose of the RGMP is to "identify whether existing site-specific and/or commodity-specific management practices are protective of groundwater quality in the high vulnerability areas . . . [and] to assess whether, and to what extent, any newly implemented

management practices are improving groundwater quality.” (Draft MRP, p. 17.) As currently proposed, the ESJWQC would be independently responsible for conducting a representative monitoring program within its geographic boundaries, using some proposed priority system. The proposed language references the potential to coordinate with other third-parties; however, the ESJWQC would still be independently responsible for meeting all of the requirements as proposed. (Draft MRP, p. 17.) In light of the need to make this program apply more broadly throughout the Central Valley, the ESJWQC recommends that the proposed language be revised to defer to the development of a Central Valley RGMP that would be implemented in conjunction with the other applicable third-party groups. Further, the development of a Central Valley RGMP needs to be coordinated with the University of California Cooperative Extension, commodity organizations, fertilizer industry representatives, DPR, and CDFA. All of these other entities have specialized expertise to assist in developing an appropriate RGMP that addresses the priority commodities grown throughout the Central Valley. It would be inefficient to make each third-party group develop and implement its own RGMP. Accordingly, the ESJWQC recommends that all the specific requirements with respect to the RGMP be removed from the Draft MRP and all other documents at this time so that the ESJWQC can work collectively with the Central Valley Water Board and other third-parties to develop an appropriate and effective RGMP.

I. Timing of Requirements

The Draft WDR includes a number of different requirements with specific time periods for compliance, implementation, or reporting. The ESJWQC has reviewed all of the timing requirements to (1) determine if the time periods are adequate for conducting the work expected, and (2) determine if the deadlines conflict with busy times for its Members, which would make compliance with the requirement by that time more difficult (i.e., does the due date coincide with planting and harvesting times in the region). Based on its review, the ESJWQC recommends that certain timeframes for compliance be adjusted.

First, the Draft WDR would require existing Members and new Members to effectively enroll in the new program within 90 days of adoption of the order. (Draft WDR, pp. 3, 19-21.) However, this timing does not include or consider the amount of time that is needed for the third-party to submit a request to the Central Valley Water Board for a Notice of Applicability (NOA). The Draft WDR requires the third-party to submit within 30 days its Notice of Intent to be the third-party, and then wait for receipt of the NOA from the Executive Officer. There is no specified length of time as to how long the Executive Officer has to issue the NOA. Because the third-party does not technically exist with respect to implementing this order until after the Executive Officer issues the NOA, there is no third-party for enrollment until that event occurs. Accordingly, it would be more appropriate to tie the enrollment timelines from the date of issuance of the NOA versus adoption of the order. Further, in the event that the NOA is issued quickly, the current timeframe does not account for the holidays that will occur during the 90-day period following the anticipated date of Central Valley Water Board adoption. To address both of these concerns, the ESJWQC recommends that the 90 days to enroll be changed to 120 days, and that this time period begin once the third-party receives its NOA from the Executive Officer.

Second, the Draft WDR includes requirements for when the Farm Evaluation Template must be completed by the Members and returned to the third-party. (Draft WDR, p. 21.) The proposed deadlines for this document are tied to the Executive Officer’s approval of the template itself. However,

by setting the deadline as proposed, it does not allow for any flexibility for the third-party to time completion of the template with the third-party's outreach and education efforts, and avoid periods when farming activities are busiest, such as spring planting/fall harvest. To allow the ESJWQC appropriate flexibility to time completion of this evaluation with other needed activities, the ESJWQC recommends that the deadline for completion be removed from the Draft WDR. Instead, the ESJWQC should be allowed to propose a schedule of related activities and completion deadlines to the Executive Officer when submitting the Farm Evaluation Template. This will allow the ESJWQC to work with its Members and Central Valley Water Board staff to ensure that completion of the Farm Evaluation happens in an efficient manner, instead of trying to meet an arbitrary deadline that is tied to some event that will occur at a specific time that is currently unknown. Along with the timing requirements for completion of the Farm Evaluation, the ESJWQC recommends that this schedule as proposed would also include activities specific to distribution and completion of the Sediment and Erosion Control Plan for those that must complete such a plan. Thus, the specific timing requirements for the Sediment and Erosion Control Plan would be deleted from the Draft WDR and be included in a schedule proposed by the ESJWQC that is subject to Executive Officer approval.

Third, the Draft WDR would require Member's to submit Annual Nitrogen Budgets by March 1 of each year, "beginning the year after the Central Valley Water Board Executive Offer approves an Annual Nitrogen Budget worksheet template." (Draft WDR, p. 21.) The timing of this requirement needs to be adjusted to account for completion of the Groundwater Assessment Report (GAR), which will identify the high vulnerability areas for nitrates in groundwater. Accordingly, the ESJWQC recommends that the Draft WDR be revised to state that the first Annual Nitrogen Budget should be required by March 1 of each year, beginning the year after the Executive Officer approves "the GAR" and the Annual Nitrogen Budget worksheet template. Both events must occur before this requirement can be implemented.

Fourth, the Draft MRP would require that the third-party submit its proposed groundwater Trend Monitoring Workplan and RGMP within one year of receipt of the NOA. (Draft MRP, p. 18.) It is not possible for the ESJWQC to develop the Trend Monitoring Workplan until after it has completed the GAR. So, to recognize that the GAR must be completed and approved prior to development of the Trend Monitoring Workplan, the ESJWQC recommends that the Trend Monitoring Workplan be due one year after the Executive Officer approves the GAR. With respect to the RGMP, as indicated previously, this requirement should be removed completely and be deferred to a collective and cooperative program that is developed with all of the third-party groups in conjunction with other essential entities such as the University of California Cooperative Extension, commodity organizations, fertilizer industry representatives, DPR, and CDFA.

Finally, the Draft WDR requires the third-party to submit a list of its Members within 120 days after receiving the NOA from the Central Valley Water Board, and annually by 31 July of each year. (Draft WDR, p. 23.) To address the need to extend the enrollment period as discussed above, the ESJWQC recommends that this deadline be changed to 30 days after the close of the Member enrollment period. Further, the language should be clarified to state that after the first list is submitted, subsequent lists would then be submitted by 31 July of each year thereafter. Otherwise, the third-party could be required to submit the first list in March and then again in July of the same year. Such a requirement is duplicative and unnecessary.

J. Time Schedule of Compliance

The surface water and groundwater limitations expressed in section III of the Draft WDR are specifically applicable to the discharges from irrigated agricultural operations and not to the actual receiving waters (i.e., surface or groundwater). In other words, irrigated agriculture may be in compliance with these provisions even if the surface water or groundwater in question does not meet applicable water quality standards. (Draft WDR, pp. 14-15.) Likewise, the time schedules for compliance in Section XII of the Draft WDR must also be specifically related to the discharges from irrigated agriculture and not the receiving water. (Draft WDR, p. 28.) As proposed, the Draft WDR contains some contradictory language that may imply that the receiving waters are required to meet objectives within the timeframes proposed – not discharges from irrigated agricultural operations. For example, the time schedule language for groundwater discusses the GQMP for complying with water quality objectives. (Draft WDR, p. 28.) It must be clear that this is a reference to *current* discharges from irrigated agriculture shall not be causing water quality objectives to be exceeded. It does not mean that the groundwater will comply with water quality objectives, or that irrigated agricultural operations subject to this order are responsible for past discharges that may have caused the water to exceed water quality objectives. Further, it is important to note that the ten-year timeframe for some constituents and some practices is an aggressive timeframe. Thus, it is essential that the Central Valley Water Board's authority for modifying these schedules be maintained.

K. Groundwater Quality Management Plan General Requirements

The Draft WDR and Draft MRP-2 propose to require Groundwater Quality Management Plans (GQMP) within 45 days after a triggering exceedance. (Draft WDR, p. 24; Draft MRP-2, p. 2.) The program proposed is very similar to that for surface water. The ESJWQC had initially thought that this process would also work for groundwater. However, after careful evaluation and consideration, the ESJWQC has now concluded that surface water and groundwater are very different, and the same process that has been employed for surface water may not work well in conjunction with groundwater. In general, Surface Water Quality Management Plans (SQMPs) are designed to be reactive to the observed condition, identify the source of the condition, address the condition, and then for a prescribed, relatively short time period demonstrate completion of the action(s) outlined in the SQMP. The third-party could then request completion of the management plan, and pending approval by the Executive Officer, the third-party may revert to regular ongoing monitoring requirements.

Unlike the circumstances described above for surface water, groundwater quality conditions, especially those contributed to by widespread nonpoint sources, do not lend themselves to the same "management approach." Since an alternative groundwater monitoring approach, i.e., a Central Valley scale RGMP, is proposed for the Central Valley Water Board's consideration, a different approach to groundwater quality management planning for the Draft WDR needs to be considered.

As recognized by Central Valley Water Board staff, the Draft Information Sheet describes the Trend Groundwater Monitoring Program as "designed to determine baseline quality of groundwater in the third-party area, and to develop long-term groundwater quality information that can be used to evaluate the regional effects (i.e., not site-specific effects) of irrigated agriculture and its practices." Notably, trend monitoring as defined by Central Valley Water Board staff recognizes the relatively longer

time periods and also larger regional scale associated with the purpose of the trend monitoring. Long time periods may mean many years or even many decades depending on the hydrogeologic setting. The relatively greater depth of the trend monitoring wells (i.e., typically water supply wells which would not be constructed with a short screen section at the water table) means groundwater flow paths to the trend monitoring wells are much longer (potentially miles) and the contributing source areas more diffuse. Groundwater trend monitoring describes water quality results collected over a long period that are symptomatic of practices associated with regional land uses. Where irrigated agriculture is the predominant land use in the monitored area, it may be indicative of the effect of long time agricultural operations contributing to the observed trends. However, representative monitoring, rather than trend monitoring, is the preferred method for: (1) determining more definitively which agricultural practices are contributing to effects on water quality, and (2) more quickly and effectively demonstrating practices that control the effects on, and result in improvements to, water quality, which should occur on a valley-wide scale.

The GAR will include a determination of higher and lower hydrogeologically vulnerable areas. When establishing priorities for monitoring in high vulnerability areas, the third-party will also consider (among other factors) identified exceedances of water quality objectives for which irrigated agriculture waste discharges are the cause, or a contributing source. This means where sufficient existing groundwater quality data are available in the third-party area, particularly hydrogeologically sensitive areas, they are likely to show the regional effects of long time agricultural practices. Similarly, trend monitoring can also be used to show long time improvements to groundwater quality, on a regional scale, due to changed practices. As noted above, representative monitoring is the preferred method for more quickly measuring whether changed practices are effective in improving water quality.

As an alternative to the GQMP approach currently proposed in the Draft WDR, the ESJWQC proposes the following approach. Rather than the relatively short timeframe and observable scale of impact and results associated with the SQMPs, it is suggested that GQMPs (or other reporting methods that have the same objectives) have a different basis. Specifically, GQMPs (or one coalition-specific GQMP) should be prepared for areas where it is known that irrigated agricultural operations have contributed salinity and nitrate to groundwater. The GQMP may include third-party actions related to the following:

- Annual Nitrogen Budgets submitted by Members to the third-party;
- Farm Evaluations submitted by Members to the third-party;
- Education and outreach conducted by the third-party; and
- Ongoing groundwater monitoring to assess trends.

All of the above activities are to be reported annually by the third-party in its Annual Monitoring Report. Additionally, in coordination with the proposed Central Valley representative groundwater monitoring program (RGMP), the third-party can provide and receive information directed toward furthering the collective efforts of the agricultural community to improve grower's practices.

Pamela Creedon

RE: *ESJWQC Comments on Tentative WDRs for Growers Within the Eastern San Joaquin River Watershed*

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Thus, rather than having GQMPs triggered in the way as proposed in the Draft WDR, the ESJWQC recommends that the GAR identify areas where the ESJWQC should concentrate its efforts on education and outreach to its Members, as well as identifying appropriate management practices for implementation. These efforts would be supported with information obtained from the proposed valley-wide RGMP. These areas would be prioritized in the GAR based on a number of factors, including but not limited to, groundwater monitoring information, locations to urban areas, constituents of concern, and others. Accordingly, the ESJWQC recommends that the GQMP trigger requirements be deleted, and instead have such requirements be based on information obtained in the GAR, and subsequently.

Thank you for the opportunity to comment. Should you or your staff have any questions with respect to these comments and the information contained in Attachments 1, 2, and 3, please do not hesitate to contact me at (559) 646-2224.

Sincerely,



Parry Klassen
Executive Director

Attachments

cc: Secretary Karen Ross, Department of Food and Agriculture (*via email only* karen.ross@cdfa.ca.gov)
Charles Andrews, Department of Pesticide Regulation (*via email only* candrewa@cdpr.ca.gov)