cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE
A. G. Kawamura, Secretary

December 28, 2007

Pamela Creedon
Executive Officer
California Regional Water Quality Control Board, Central Valley
11020 Sun Center Drive #200
Rancho Cordova, CA 95670

Dear Ms Creedon.:

The California Department of Food and Agriculture (CDFA) respectfully submits the following comments on the Tentative Monitoring and Reporting Program (MRP) which will be considered by the Central Valley Regional Water Quality Control Board (CVRWQCB) at its January Board meeting. We appreciate the public participatory process created by the Board in the Technical Issues Committee (TIC) and the opportunity to provide comment on this and other proposals.

Beneficial Uses

CDFA staff has participated to a limited extent in the TIC and has raised concerns to the extent that our limited participation has allowed. One point which we have raised at the TIC and continually since the first proposal of the waiver for irrigated lands was presented in 2003 is the issue of the appropriate beneficial uses for agricultural conveyance channels and the corresponding water quality objectives to protect these uses.

We feel that the TIC has not resolved this issue nor dealt with it in a meaningful way. This issue has appeared in every triennial review since at least 1999 and yet the CVRWQCB, while acknowledging this deficiency has failed to make any progress toward developing appropriate beneficial uses. Our concern is with the burdens placed on the agricultural industry to comply with standards that are inappropriate and overly protective due to the failure of the Board to conduct the fundamental water quality planning before initiating regulation. Although the industry is operating under a waiver, as a result of modifications to the Water Code in recent years, the waiver is functional to waste discharge requirements.

As we have noted in our multitude of previous comments, agricultural water bodies were created and modified for the purpose of conveying agricultural water supplies and drainage. We acknowledge that agricultural operations must not impair beneficial uses of downstream natural water bodies. However, in protecting these uses, the uses for which these agricultural conveyances were created for should not be prevented. We believe it is possible to protect the aquatic life, recreational, industrial, municipal and agricultural water supplies uses of natural water bodies without having to ascribe the downstream uses of the natural water bodies to agricultural conveyance channels.

The State Water Resources Control Board recognized this in the Inland Surface Water Plan that it adopted in the early 1990s. The Central Valley Regional Water Quality also recognized this when it adopted a Basin Plan amendment for the regulation of agricultural drainage from the Grassland Area (1996). In this case, the CVRWQCB undertook the steps to assign the proper beneficial uses to Mud Slough (north) and Salt Slough before regulating agricultural discharges from the Grasslands watershed. In this case, cold water fish migration beneficial uses that were assigned to the San Joaquin River were removed as beneficial use of Mud Slough (n) and Salt Slough. The CVRWQCB recognized that although, migration of salmon was occurring in these sloughs, this was an aberration and not an existing use, regardless of the uses of the San Joaquin River, to which these sloughs are a direct tributary.

We will not belabor this point any further other than to refer you to the detailed comments we submitted in May of 2003 in response to one of your conditional waiver proposals and to the extent that this issue applies to this tentative MRP. With respect to the questions that the tentative MRP is structured to address, questions numbers 1, 2, and 3 require judgment as to the level of beneficial use attainment or degree of impairment as a result of agricultural operations. No where in this tentative MRP or in the Coalition Group Conditional Waiver from Waste Discharge Requirements (Amended Order No. R5-2006-0053) is it spelled out what are the beneficial uses that are to be considered in this evaluation; at least not to our knowledge. The tentative MRP however, requires the Coalitions to identify the beneficial uses (page 4 item 5.). We believe the Water Code tasks the Regional Water Board with this responsibility (Water Code Section 13240 and 13241), however; at the very least the CVRWQCB should provide some guidance as to how the Coalitions are to accomplish to this.

<u>Data Collection and Reporting</u>

The tentative MRP requires the Coalitions to gather and report on a large amount of information including chemical usage, management practices, nutrients usage and locations where these are applied [see items 9, 10, and 11 on page 4 (Components of an MRP Plan) and page 6, paragraph 2 (Requirements for Monitoring Site Information)]. Additionally, the assessment phase of the tentative MRP requires the screening of a broad range of chemicals including general water quality parameters, pesticides, toxicity testing, and metals (See Table II-D).

We fail to see the logic in such a broad inventory of chemical usage, especially nutrients usage which are not readily attained and the location of usage prior to establishing if a water quality concern exists. It would seem that if the coalitions are to undertake such comprehensive water quality characterization, that any inventory of chemical usage should be delayed until it is established if a water quality concerns exists. If so, follow-up surveys should be limited to the chemicals of concern and to their place of use in the affected sub-watershed.

The inventorying of nutrient usage is of no value in the evaluation of nutrient related water quality concerns. First of all, all agricultural operations use nutrients in one form or another. The main issue related to surface water quality impairments with respect to nutrients is the irrigation system and its management. An agricultural operation that uses fertigation on a drip irrigation system or other pressurized system is likely to have little risk of discharging nutrients. Likewise a gravity system that operates with proper tailwater recovery system poses little risk. Thus, the amount of nutrient use is unnecessary and a burdensome requirement. Additionally, it should be noted that interpretive guidance has not yet been developed by the State Water Resources Control Board (SWRCB). Presently, the only interpretive guidance is for unionized ammonia for which irrigated agriculture is an unlikely contributor and nitrate, which the Maximum Contaminant Level (MCL) for drinking water is available but unlikely to be exceeded.

Monitoring of 303(d) Listed Water Bodies

The tentative MRP requires Coalitions to establish monitoring locations for water bodies that have been listed as impaired as per the Clean Water Act Section 303(d) when the listing is due to an agricultural related contaminant and additionally when a TMDL has been establish for which the Coalition or another entity is implementing the TMDL. First, the CVRWQCB needs to recognize that there are contaminants that may be associated with agricultural operations but that may not necessarily originate from irrigated agriculture subject to the conditional waiver. For example, ammonia is unlikely to originate from irrigated agriculture but from wastewater treatment plants and/or animal agriculture. In fact, there are water bodies which are listed as impaired for these contaminants for which other land uses have been identified as the source other than irrigated agriculture subject to this waiver.

With respect to TMDL monitoring, it is not clear why Coalitions would want to duplicate existing monitoring programs. For example, there is existing regulatory program for selenium and accompanying monitoring (the grassland Bypass Project). What purpose would it serve to duplicate the monitoring that is already taking place? For TMDL that have not yet been developed or implemented, haphazard data collection by the Coalitions is unlikely to yield meaningful data to be utilized in the TMDL. Data in support of TMDL development will need a carefully and scientifically developed monitoring program that will need to include load assessment. A snapshot in time may be valuable information for the

irrigated lands program but may not serve the needs of the TMDL. These are separate issues and should not be commingled.

Management Measures Effectiveness Monitoring

Under assessment monitoring design, next to the lat bullet item (page 7) calls for demonstrating the effectiveness of management practices. This is a research oriented project that should be undertaken where variables can be controlled or accounted for. Commodity groups, agricultural chemical companies, and the fertilizer industry provide funding for the development and evaluation of management measures by University, extension specialists. In a field environment, there are many variables that cannot be controlled such as climate (droughts and floods), shifting agricultural patterns such a s fallowing, crop rotations that result in high variability and make it difficult to discern changes in water quality from the implementation of a particular management practice. Coalitions can undertake trend monitoring over the long-term but it is difficult to draw conclusions regarding one particular management measure under this highly variable environment. This task should continue to be conducted by extension and University researchers. We recommend that the SWRCB and RWQCBs make it a priority to provide grant funding for this type of work in view of the large need.

Trend Monitoring

Similarly, the limitations of trend monitoring need to be recognized. Due to the large variability in a filed environment, long-term evaluations need to be undertaken to establish a trend. As was noted previously, agriculture is not static. Cropping patterns are continually changing due to changing economic factors. For example, there has been a trend toward shift to higher value crops such as wine grapes and nut crops. With this shift to higher value crops, there has also been a shift in management measures such as pressurize irrigation systems and fertigation which higher value crops have allowed farmers to adopt. There is also as previously noted climatic variability that may affect the amount of runoff, the need for certain chemicals such as herbicides, cropping patterns such as fallowing and time of planting. All these factors produce a lot of variability in water quality conditions that cannot be readily accounted for and thus require long-term evaluations to establish trends. Long-term information does not exist prior to the implementation of the irrigated lands program and thus, it is difficult to conclude what impact the irrigated lands program activities may be having as opposed to management shifts in response to economic factors.

Monitoring for Molybdenum

Molybdenum is rarely applied to crops in the San Joaquin Valley. When it is applied it is applied in very small quantities as it is a trace nutrient. Molybdenum, however, does occur naturally in the groundwater in certain parts of the San Joaquin Valley. Groundwater inflow to San Joaquin River in the area just upstream of Salt Slough confluence has been shown to have elevated Molybdenum levels from these groundwater accretions. Apart from this segment

of the san Joaquin River, we are not aware of other elevated levels of Molybdenum and certainly not from irrigated agriculture.

Thank you for the opportunity to provide comment on the tentative MRP. We look forward to our continued participation in the TIC and offer our assistance in addressing the beneficial use issue. If you have any questions regarding these comments, please call me at (916) 651-0444.

Sincerely,

Al Vargas
Staff Environmental Scientist

Cc: Steven Shaffer, CDFA
John Hewitt, CDFA
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