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MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Central Valley Regional Water Quality Control Board

7 August 2014



Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento, CA 95814

Dear Ms. Townsend and Members of the Agricultural Expert Panel:

Thank you for the opportunity to comment on the “Draft Conclusions of the Agricultural Expert Panel: Recommendations to the State Water Resources Control Board Pertaining to the Irrigated Lands Regulatory Program”.

When the Central Valley Water Board initiated its Irrigated Lands Regulatory Program, the Board was faced with the daunting challenge of creating a regulatory program that would address the needs of the agricultural community without contravening the Board’s environmental mandates. In order to rise to this challenge, the Central Valley Water Board engaged in years of contentious debate, deliberations, and litigation, which involved a broad spectrum of stakeholders, from members of the agricultural community, to environmental groups, to representatives of disadvantaged communities dependent on groundwater as their primary source of drinking water. Furthermore, the Board considers its regulatory process to be a dynamic process; the Board has committed to consider all suggested refinements, no matter how mundane or radical, that would make its regulatory program more effective.

This Board had hoped that the Expert Panel members would draw upon their specialized areas of expertise to make suggestions for improving the Board’s existing regulatory approach. While the Expert Panel has made some helpful recommendations, this Board ultimately believes that the Expert Panel’s proposed “paradigm shift” contravenes both the policy goals of the Central Valley Water Board and its existing legal obligations. In this Board’s opinion, the Expert Panel’s Report is detrimental to the advancement of the Board’s regulatory efforts, including not only those related to the Irrigated Lands Regulatory Program but also those related to our Central Valley Salinity and Long-Term Sustainability Program (CV-SALTS) and other basin-wide planning efforts. It is our strong opinion that the Panel’s recommendations rest on the untenable and unsupported conclusion that various types of groundwater monitoring currently utilized throughout the Central Valley are not reliable, effective, or practical.

Though the Board is willing to entertain many of the propositions contained in Expert Panel’s draft Report, the idea that groundwater monitoring cannot be used to determine the efficacy of management practices is refuted by this Board’s long history of successfully employing groundwater monitoring in a wide variety of situations, and across an expansive range of regulated industries. We recognize that developing and implementing a robust monitoring program is not an easy proposition. However, imposing such a requirement is not merely a policy choice; it is a legal imperative designed to ensure that the Board’s actions effectively protect drinking water supplies, comply with State and Regional Policies, and ensure the long-term viability of groundwater and surface water resources for *all* users. But perhaps most

importantly, abandoning groundwater monitoring, except for the limited monitoring of supply wells, would eliminate grower accountability for the agricultural industry's impacts to groundwater, and would place an unacceptable burden on all the other users that depend on the quality of the waters of the Central Valley Region.

This Board's critique of the Expert Panel's monitoring recommendations comes with the benefit of hindsight, as this Board has repeatedly faced criticisms regarding the monitoring programs that it has imposed over the years. In some instances, regulated entities have felt that the Board's monitoring programs have been too onerous relative to the information that they yield (it is this type of claim that is made repeatedly throughout the Expert Panel's report). In other cases, stakeholders have alleged that Board-imposed monitoring programs do not provide a timely indication as to whether regulated discharges cause unacceptable impacts to groundwater and surface waters. While finding the right balance is often a difficult task, this Board acknowledges that *Asociacion de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Bd.* (2012) 210 Cal.App.4th 1255 (*AGUA*), a case which involved the Central Valley Water Board's 2007 Dairy General Order, helps set the bar for the minimum requirements that must be a part of a Board-issued monitoring program. And, in this Board's opinion, the Expert Panel's suggested monitoring approach would fall below that legal threshold.

Though there are significant differences between the monitoring program that this Board imposed in the 2007 Dairy General Order and the monitoring approach urged by the Expert Panel, both rely on observing impacts in supply wells,<sup>1</sup> and this reliance is problematic in both instances. Even though the 2007 Dairy General Order simply used supply wells to prioritize additional monitoring efforts, the Third District Court of Appeal nonetheless opined that, "monitoring conducted from supply wells alone does not provide either an accurate or a timely indication of groundwater degradation." (*AGUA* at 1275.) Given that it is a mandatory requirement that the Board protect the waters within its jurisdiction from degradation that would impact beneficial uses, it is impossible to see how a monitoring program that relies on the monitoring of supply wells alone could fulfill the Boards' legal obligations.

If the Expert Panel were willing to revisit its conclusion that groundwater monitoring is not reliable, effective, or practical, the Expert Panel might then determine that this Board's current approach towards groundwater monitoring is both reasonable and cost-effective. The Expert Panel is likely aware that this Board has taken the position that the *AGUA* decision does not stand for the proposition that groundwater monitoring is required at all regulated facilities. Instead, the Board has often allowed regulated communities to pool their resources and cooperatively develop monitoring programs to assess the efficacy of the variety of management practices utilized by their particular industries. These monitoring programs need only survey a select group of "representative" facilities, which keep costs low while still providing the Board with an understanding of which management practices are effective, and under what hydrogeologic and climatic conditions they may be utilized.

Preparing plans and becoming educated can certainly lead to improvements in the quality of groundwater. However, without meaningful reporting, the Board would never be able to bring its enforcement authority to bear on bad actors, and would leave the Board with essentially a voluntary program that growers could abandon based on their preferences or economic incentives. Furthermore, although a one-size-fits-all approach would undoubtedly be easier to

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<sup>1</sup> In an effort to be sensitive to the costs associated with groundwater monitoring, the Board's 2007 Dairy General Order proposed to prioritize those sites where additional groundwater monitoring would be required based on observed impacts in supply wells. Under the Expert Panel's approach, almost all groundwater monitoring, except for the monitoring of supply wells by water suppliers, would be abandoned.

implement than a tailored approach, regulating growers without regard to the specific characteristics of the commodities they produce, the hydrology of their lands, or the vulnerability of the water resources that may be impacted by their activities, would not result in an approach that could be legally advanced by our Board.

The Central Valley Water Board urges the Expert Panel to reconsider its proposal and instead focus on making recommendations that are consistent with the regulatory foundations that have been in development for years. This Board would greatly appreciate constructive recommendations to help us regulate irrigated agriculture in a way that is both protective of water quality and is responsive to the needs of the agricultural community. Too much attention in the report is given to tearing down key components of the Water Board's regulatory foundation, diverting attention and time from areas in which the Panel could add value. Specific, practical recommendations on how growers and Coalitions can best fulfill the requirements in our Orders would provide the Board and our stakeholders with something we can continue to build on as we work to protect our precious surface and groundwater resources in a cost-effective manner.

With our understanding of your constraints and good intentions to help improve our regulatory programs, we offer the following additional comments regarding the draft recommendations.

#### Areas in which Central Valley Water Board Staff Concur with the Draft Recommendations

Though the Central Valley Water Board contends that its existing regulatory program is already consistent with the following general points made by the Agricultural Expert Panel, the Board would like to acknowledge its concurrence with the Panel in the following key areas:

1. Reducing the volume of deep percolation water and matching available nitrogen to plant needs are both key to reducing nitrate transport from the crop root zone to the aquifer. [Key Point I]
2. Having an irrigation water management plan and nitrogen management plan are fundamental to reducing deep percolation and minimizing excess nitrogen application. [Key Point K]
  - a. Successful development and implementation of such plans requires that the “developers” and “implementers” be properly trained. [Key Point K]
  - b. Irrigation water management and nitrogen management plans should include estimates of key parameters (e.g., nitrogen required, distribution uniformity). [Key Point M]
  - c. Farmers should keep records of key irrigation management/nitrogen management parameters.
  - d. Management plans must identify actions to be taken to improve performance, if such actions are needed. [Key Point N]
  - e. Farmers must adopt and implement the plans within a specified time period.
  - f. The qualifications of plan developers and basic plan requirements should be established by the Water Boards. [Key Point O]
  - g. Meaningful education and training programs are needed. [Key Points P & Q]
  - h. The developer of the plan is not responsible for the failure of the grower to properly implement the plan.
3. Common terminology and recommendations should be used. [Key Point R]

4. The Water Boards need a metric to evaluate/verify the effectiveness of management practices in protecting water quality. [Key Point S]
5. A “reporting unit” could be defined as an individual field or include multiple fields with similar characteristics and practices. [Key Point Z]
6. Identification of surface water quality problems can be effectively carried out through monitoring of downstream points in drains and streams. [Key Point BB]
7. Compliance will be low unless there are enforceable requirements.
8. Trend monitoring should occur to track general aquifer conditions.
9. Third-party/coalition data collection and reporting of grower data can serve a valuable purpose in facilitating data collection and analysis.
10. The “4-Rs” approach to fertilizer management should be employed by growers.
11. Agriculture is a contributor to nitrates in groundwater.
12. It is important to track total loading of fertilizer/nitrogen.
13. Directly measuring the effectiveness of management practices on all farms would be difficult and costly.
14. Water quality data from water supply wells can provide an indicator of the condition of the aquifer, but do not necessarily provide information that can be used to assess whether current practices on the land surface caused a water quality problem.
15. A well-managed coalition can be effective in assisting growers in complying and providing needed information to the board.

#### Areas in which Central Valley Water Board Staff Recommend Changes

In order to assist the Central Valley Water Board in meeting its policy goals and its existing legal obligations, Board staff recommends changes to the recommendations of the Agricultural Expert Panel in the following key areas:

1. Focus the recommendations on areas in which the Panel believes it can add value to or improve the existing regulatory programs. A number of the “key points”, and the general tone in significant parts of the report, focus on either unnecessarily discrediting certain approaches or include sweeping technical statements that are not technically supported [e.g., Key Points A, B, C, D, F]. It would be more beneficial to the boards for the Panel to focus on what should be done and how.
2. The draft Report includes multiple statements implying that the boards have standards or requirements that are not contained in the Orders. This sets up a series of false contrasts, which are then used to justify a voluntary/educational approach. For example, Key Point D indicates that extensive monitoring of first encountered groundwater is not appropriate. Based on this conclusion, the Panel then seems to abandon any notion that groundwater monitoring can be beneficially employed in our programs. The Orders, in fact, do not recommend “extensive” monitoring of first encountered groundwater, but suggest such monitoring should be used for specific studies (e.g., the Management Practices Evaluation Program).
3. The Panel’s concerns regarding excessive data collection [Key Point J] have apparently led it to recommend minimal data collection [Key Point Y] that will not provide the Board with a method for determining whether or not particular management practices are sufficiently protective of groundwater and surface waters.

4. The Panel appears to believe that all growers should have the same performance standards and requirements, regardless of the vulnerability or risk designation [Key Point B]. If the Expert Panel truly is recommending that the Boards not take into account the hydrogeologic setting where a discharge occurs (contrary to every other regulatory program that the Boards administer), the Panel should state so plainly, rather than make an oblique criticism in an extended discussion regarding vulnerability and risk.
5. The Board disagrees with the Panel's suggestion to abandon the concepts of high and low vulnerability, since there are important policy implications associated with the concepts. The distinctions allow the board to focus attention in the high vulnerability areas and require those that pose a greater risk to or impact on water quality to do more.
  - a. The Panel expressed confusion regarding the high vulnerability definition. More guidance is given to the Coalitions in the Orders beyond the brief definition (see Section V. of the Information Sheet and Section IV.A. of the Monitoring and Reporting Program - [http://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/general\\_order\\_s/r5-2014-0002.pdf](http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_order_s/r5-2014-0002.pdf) ).
  - b. Two Coalitions (Rice and the East San Joaquin) have been able to successfully evaluate groundwater vulnerability in their Groundwater Quality Assessment Reports, suggesting there is sufficiently clear guidance in the Orders (see [http://www.waterboards.ca.gov/centralvalley/water\\_issues/irrigated\\_lands/index.shtml#water\\_quality](http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/index.shtml#water_quality) ).
6. Key Point N suggests management plans must identify actions to be taken to improve performance. However, the report does not appear to make any recommendations on how to determine whether performance needs to be improved or how to determine (through direct or indirect measurements) whether such improvements have benefited water quality.
7. The Panel apparently discards a role for groundwater monitoring in evaluating management practices [Finding 3]. Based on the Board's experience in its other programs (including the dairy program, which includes field monitoring), we do not believe the conclusions are supported by any meaningful technical analysis. The Panel could focus on the conditions under which such monitoring could provide valuable information (e.g., short aquifer response times to changes on the land surface; cropping patterns that have been consistent over a number of years), rather than discarding meaningful monitoring and groundwater studies altogether.
8. Finding number 4 states that what will be seen in the Tulare Basin in the next 20 years, on the average, are the results of historical practices. There is no technical analysis or justification for such a sweeping statement for such a large area. The Panel should consider that the time lag between surface practices and underlying aquifer impacts makes it even more important for the Board to evaluate the nitrate loading of current practices, since we could be creating the legacy issues of tomorrow.
9. Finding number 6 states that data on nitrate levels in groundwater comes from data sources of poor quality. Since much of the data comes from public water systems or studies conducted by agencies using certified labs, the basis of this statement is not clear. The data are more likely to be of generally high quality, although interpretation for certain purposes (e.g., above ground practice effectiveness) may be problematic.
10. In Finding number 13, the Panel expresses its opinion that there are no currently available direct or indirect measures that can be used to separate good from bad practices, and that the current regulatory approach basically constitutes a wasted information collection effort. We do not believe this opinion rests on a solid foundation or is supported by evidence. Our

Orders include such measures (e.g., identifying the practices used by growers), as well as processes for refining and developing such measures (e.g., through the Management Practices Evaluation Program).

The Panel also appears to express disagreement with our fundamental statutory mandates by indicating the Boards are “overtaxed” by our legislative charge to protect beneficial uses. We respectfully suggest the Panel revisit this statement, since it suggests a bias regarding our fundamental mission to protect beneficial uses. Our Board has a decades-long history of successfully executing our statutory mandates and is confident we can meet that mandate when it comes to discharges from irrigated agriculture. However, we certainly value and concur that education and outreach have a critical role in all regulatory programs.

11. On page 19, the Panel indicates that “risk level” should be considered in prioritizing, but does not suggest a tool to use. The Panel indicates that available tools do not give flexibility to reduce the assumed risk and regulatory burden. The vulnerability designations used by the Central Valley Water Board provide that flexibility, since an area can go from “high” to “low” vulnerability if agriculture is not causing or contributing to the water quality problem. The Panel should consider clarifying that establishing priorities is useful to focus regulatory efforts, not primarily for education and extension efforts, as the report seems to suggest.
12. Page 32 – the Panel suggests that current groundwater quality conditions should not trigger reporting or regulation of above-ground activity. The Board’s statutory and regulatory obligations, including the State Water Board’s Anti-Degradation Policy, do not allow us to ignore the conditions of the waterbody receiving waste from the discharger. The Panel should remove this statement and any recommendations it has based on that statement.
13. Pages 32-34 – the Panel suggests only reporting total nitrogen applied. The Panel also indicates the point of reporting is not enforcement, but increasing awareness. First, it is not clear how merely reporting total nitrogen applied will serve as a proxy for a grower’s potential impact on groundwater quality. We suggest the Panel reconsider the work that has already been done in this area (e.g., the nitrogen budget template prepared in response to the Central Valley Water Board’s Orders; the CDFA Nitrogen Task Force report) and review where there may be areas for improvement or further research to provide a more complete picture of residual N that may be discharged to groundwater.

The Panel is preparing recommendations for a regulatory program. To be of utility to the boards, the information being reported must be useful for evaluating compliance with the Orders; otherwise, there is no reason for the boards to request the information. Finally, since there is no groundwater monitoring or practice evaluation component to this basic data collection effort, it is unclear how such minimal information collection will benefit water quality in the long-term.

Thank you for your consideration of our comments.

Sincerely,



Pamela C. Creedon  
Executive Officer

cc: Central Valley Water Board Members