Public Comment
Agricultural Expert Panel
Deadline: 5/14/14 by 12:00 noon

Grower Shipper ASSOCIATION
of Santa Barbara and San Luis Obispo Counties

RECEIVED
5-14-14
SWRCB Clerk

May 13, 2014

To: commentletters@waterboards.ca.gov

Re: Agricultural Expert Panel

Dear Agricultural Expert Panel Members:

The Grower-Shipper Association of Santa Barbara and San Luis Obispo Counties represents over 160 growers, shippers, farm labor contractors, and supporting agribusinesses. Our members grow diverse row crops such as broccoli, strawberries, lettuce, celery, nursery products, field flowers, and wine grapes. The Association's mission is to maintain a vibrant agricultural industry in the counties of Santa Barbara and San Luis Obispo by assisting our members to address challenges and capitalize on strengths and opportunities. **Water was identified as the Association's top priority by our Board of Directors in our 2014-2018 Strategic Plan.**

Geographic Scope of Membership

Our members are located in several coastal valley watersheds and underlying groundwater basins, including (listed north to south): Los Osos, San Luis Obispo, Santa Maria, Cuyama, San Antonio, and Santa Ynez Valleys.

Commitment to Nitrogen and Groundwater Management

Our members are committed to continuing their partnerships as good stewards of nitrogen and water for long-term beneficial uses. Both are essential resources in production agriculture and we have a strong vested interest in ensuring sufficient quantities and qualities in the years to come. The vast majority of our members both **work and live locally** with their families and also rely on the groundwater basin for their domestic needs as well.

Strong Support for Coalition Approach

There has been strong support for a cooperative or coalition approach in our area and we urge you to recommend coalitions on a statewide basis. A cooperative approach can engage members in solutions, streamline the monitoring and reporting process, and allow farmers to focus on IMPLEMENTING PRACTICES TO IMPROVE WATER QUALITY. Appropriate coalitions can have greater on-the-ground knowledge of local conditions to better analyze the information being gathered, as well as streamline the reporting process for both the growers and the Water Board. Coalitions can also help to assess risk based on local conditions, which will vary throughout the state.

While we strongly support the coalition approach, we are concerned about the likelihood of one being approved for our members and would appreciate recommendations securing a path forward for coalitions on the Central Coast.

Opportunity for Positive Impact

The focus of your recommendations should be on requiring monitoring and reporting that is **proportionate to the potential benefit to water quality**. Collection of information that cannot be meaningfully analyzed and duplication of reporting requirements should be avoided. Time for new practices and technologies to be tested, refined, and adopted must be incorporated. Any regulations need to be user-friendly and simple for the vast diversity of growers and large range in computer skills throughout the state.

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Importance of Recommendations

The recommendations that you make will directly impact whether small and medium size family farms will continue to be able to farm in Santa Barbara and San Luis Obispo Counties. If the recommendations for nitrogen monitoring and reporting are overly burdensome or if the cumulative impact of these requirements make it impossible to comply, these operations will discontinue farming, move farming operations out of the state, or move their operations to Mexico or beyond, as many have already done.

Vulnerability and Risk Assessment

- *Supporting Pump and Fertilize*

Policies that categorize farms with high nitrate groundwater as high risk create a **strong disincentive to "pump and fertilize**." Approaches that work against incentives to pump and fertilize include the current Central Coast Water Board's Nitrate Loading Risk Factor, nitrogen balance ratios, and Central Valley Water Board's High Vulnerability Areas Methodology if based on known water quality impairments.

Disincentives decrease the likelihood of long-term improvements in groundwater quality. This is particularly true where legacy nitrogen loading likely contributed to nitrogen levels far exceeding drinking water standards. Instead, we should *encourage* growers to mine out that nitrogen, rather than penalize them with additional regulatory requirements for high nitrate groundwater or tailwater levels. The most effective way to accomplish this would be through incentivizing growers to use water high in nitrate. This could take the form of a positive credit in calculating risk or other nitrogen use reporting. Pump and fertilize incentives must also provide flexibility for effectively managing the higher levels of salts that often correlate with high nitrogen levels.

- *Difficulties with Nitrate Risk Calculations*

Our members have experienced numerous difficulties with complying with the **nitrate hazard index and nitrate loading risk factor**.

> *Example:* ***Difficulties identifying soil series and unlisted soils.*** *Not all soil types are listed on the nitrate hazard index. The criteria for assigning a risk value to a soil series do not appear to be replicable, which makes it difficult to move forward using this methodology unless the specific series is listed. Many growers are familiar with their soil texture but had difficulty identifying their soil series. The NRCS Web Soil Survey is not particularly user-friendly for someone who has not used GIS previously. The UC Davis/UC ANR/NRCS SoilWeb does not have a high level of precision for soil types and you cannot designate a field boundary on the site, which makes it more difficult to document in the Farm Plan.*

If the nitrate hazard index or nitrate loading risk factors are being considered by the panel, it is important to allow farmers to use **either option** to allow for situations where site-specific circumstances make the other impossible to calculate due to unclassified soils or create a disincentive to pump and fertilize.

Water Board Staff interpretation of risk calculations: Furthermore, both methods under the Central Coast Order ask for calculating risk on the **highest** risk activity, rather than **average** risk. One field reality that is not captured is using sprinklers for vegetable transplants for a week or two and then switching to drip. As a result, a grower who uses sprinklers for days out of the year to establish transplants has the same nitrate loading risk as one who uses sprinklers for every single irrigation throughout the year. Additionally, Staff has written into the Order that a nitrate hazard index of 20 or higher is high risk, while the tool says that "an HI of 1 to 20 is of relatively minor concern."

Vulnerability and Risk Assessment, continued

- *Opposition to Nitrogen Balance Ratios*

We strongly oppose requiring nitrogen consumption or balance ratios to be calculated or reported. There is not currently enough scientifically sound information available on nitrogen utilization for the tremendous diversity of crops, varieties, climates, and soils for these ratios to be meaningful within the foreseeable future. Nitrogen balance ratios do not capture the complex variations in the nitrogen cycle or a dynamic agricultural system and are incompatible with a regulatory context. We have concerns with requiring reporting on nitrogen from crop residues, which are not user-friendly and difficult to calculate or estimate. We also have concerns with how to estimate the uptake of nitrogen from irrigation water, particularly when levels exceed 45 ppm nitrate. At the Sustainable Ag Expo Dr. Cahn presented that preliminarily research suggests that nitrogen uptake from irrigation water might be estimated by evapotranspiration, not total applied water. This research is still being finalized but serves to show that we cannot assume a 1:1 applied irrigation nitrogen to plant uptake, especially when other factors such as soil and water salinity and high water nitrate levels are at play. Non-consumptive uses of water by a plant might include washing dust off the leaves of plants to prevent future pest problems and need to apply pesticides.

We do, however, support our members' efforts to continually improve the optimization of nitrogen and irrigation applications using the best available information.

- *Size of Farming Operation*

We do not support the size of the farming operation as an indication of risk. If the panel does recommend size as a factor, we would prefer that it be based on the size of an individual farm. Above all, we recognize that there are varying capacities to comply with regulatory requirements but believe that a properly designed and implemented coalition approach could best equalize these differences. The appropriate coalition design would not unduly exempt small-acreage operations or focus excessively on large-acreage operations but would work to improve water quality among its membership.

- *Proximity to Surface Waterbodies*

One problem our members have encountered in implementing the Central Coast Order is the situation where they are near a surface waterbody but do not discharge to that waterbody due to natural or man-made factors, such as a bluff or levee. Questions of drainage and discharge patterns make proximity to surface waterbodies difficult as a factor for regulatory prioritization, particularly outside of a coalition context.

Application of Management Practices

- *Results from Voluntary Improvements*

We strongly object to the characterizations that **voluntary** programs have not **improved best management practices.** What is considered a best practice evolves as irrigation and fertilizer knowledge and available technology improve.

> *Example: When I started working for the Resource Conservation District in Santa Maria in 2008, local UC Cooperative Extension discussions and research considered strawberry preplant fertilizer applications in the ballpark of 800 to 1200 pounds per acre. By the time I left in 2011, that number dropped to 400 to 500 pounds per acre and were continuing to be refined downward. These trends in fertilizer decreases are also commemorated in the UCCE Cost Studies for Strawberries in Santa Barbara County. In 2006 the preplant levels mentioned were 1,000 pounds per acre and in 2011 that number had dropped to 500 pounds per acre.*

In general terms, my members report significant reductions in tailwater and fertilizer applications in the past decade, in addition to previous reductions in the decades before that. It is important to recognize that although exceedences in concentrations may persist or have increased as tailwater has been reduced, total nitrogen loading has decreased dramatically and tremendous progress has been made while still growing fresh, local produce for our families.

- *Consideration of Salt Management*

Any regulatory mechanism for water application **must** incorporate the need to **manage salts** through a leaching fraction. The consequences of inadequate salt management are catastrophic.

> *Example: As documented in ITRC Paper No. P 11-002, research on using drip to establish strawberry transplants in Oxnard experienced major plant die-off due to improper number of tapes and placement of drip tapes. By using three lines of drip tape they actually pushed the salts into the root zone, resulting in significant plant fatalities.*

This example serves to illustrate that: **1) recommendations on nitrogen management and associated irrigation management must also consider salts. 2) it's important to slowly phase in new requirements in case there are catastrophic unintended consequences. 3) it's especially important to NOT require fundamental changes to farming practices during the current drought when there other significant economic, salinity, and pest pressures negatively impacting our families.**

Management and goals for surface water must consider the long-term health of groundwater. More specifically, there must be opportunities to flush nitrogen and salts from the groundwater basin via surface water to benefit long-term groundwater health and future surface and groundwater and beneficial uses.

Application of Management Practices, continued

- *Concerns with Requirement of CCAs*

Our members have expressed concern with requiring a CCA certification or involvement as a part of a regulatory mechanism for various reasons.

The industry has reported a shortage of CCAs, particularly who are free from potential conflicts of interest. With time this capacity can be built but certifications from CCAs should not be required until there are enough individuals with appropriate education, experience, and ability to consult without potential conflicts of interest on the amount of fertilizer recommended.

> *Example: When I was working for the Resource Conservation District in Santa Maria several years ago, we were teaching a 1-acre Spanish-speaking strawberry grower how to conduct the nitrate quick test. The results came back at over 100 ppm, while the UCCE "trigger" to fertigate was 10 to 20 ppm. As we were leaving, the CCA was arriving to start the first fertigation of the season, showing a tremendous disconnect between that particular recommendation and practices protective of water quality. There is still a tremendous need for education and building capacity of CCAs, particularly before requiring certifications for nitrogen applications by CCAs.*

Local experience is particularly important. The knowledge of growers with decades of on-the-ground experience with a particular field or area built through multiple seasons of trial and error should not be discounted. Other questions arise in terms of liability for losses and regulatory actions and must be considered before requiring a CCA certification.

- *Required Trainings and Certifications*

We support optional trainings or certifications, especially if it reduces a farm or operation's risk assessment. If a training requirement is contemplated, we encourage flexibility with the curriculum to best address current issues and local conditions. Rigid, statewide curriculum would have limited usefulness. For example, training on nitrogen management in almonds in Santa Maria would not be applicable because almonds are not grown here. Instead, a system that allows a variety of topics and formats would be much better suited to the diverse and highly localized nature of agriculture in California.

- *Role of Coalitions, Associations in Trainings and Involvement*

Coalitions and Associations such as ours are noticeably absent in the list of third party workshop sponsors. Since the adoption of the Order we have provided tremendous outreach to our members. We work on a regular basis with our members to assist them with compliance. Many of our members are Tier 1 and 2 farms. They are trying to comply while also balancing food safety requirements, air quality requirements, and labor regulations and management challenges. None of my members have the staff resources to dedicate a position exclusively to water quality regulatory compliance. We ask you to recognize the context of the competing priorities that growers are facing, particularly food safety, and streamline the regulatory requirements as much as possible. One opportunity to make the requirements more user-friendly would be to vet any requirements with an *average* grower or association representative with on-the-ground experience and can reasonably anticipate the types of questions typical growers would ask. This feedback must then be *incorporated* into a revised version before release to the general public.

Verification Measures

Due to tremendous local variations, we encourage a strong framework for **coalitions** to work with members and Water Board staff to develop and implement appropriate verification measures. We have found the burden of individual reporting currently in place under the Central Coast Order to be excessive and disproportionate to benefits to water quality. Such a level of technical precision is better suited to a cooperative or coalition approach.

> *Example: Tier 3 farms have had tremendous difficulty completing the required Individual Sampling and Analysis Plan and Quality Assurance and Project Plan required for the individual discharge monitoring requirement, not to mention the sampling itself. Although we have relatively few Tier 3 farms among our membership, they have not been able to complete the plans without outside assistance and locating qualified technical assistance contractors has been very difficult.*

Reporting

Due to the dynamic, complex, and sensitive nature of nitrogen application information, our members have expressed a strong preference for keeping management plans and application information on farm as a part of a Farm Plan or equivalent recordkeeping system. To avoid duplication between the Farm Plan, eNOI, and Annual Compliance Form, reporting to an appropriate coalition would be preferred.

My members have also expressed a preference for an annual reporting period for nitrogen applications with ample time to compile the information. They expressed preference for a January through December reporting period with several months to compile the information before reporting, similar to tax returns. They would only need to "close their books" once per year for both tax and regulatory reporting purposes, rather than multiple times.

Our members **need flexibility** in responding to both annual variations and market conditions. These variations must be considered in information gathering, reporting, and trend analysis. The constant variations within and between fields and seasons need to be considered in developing recommendations.

We also would like to convey the difficulty that our members have experienced with the "land units" for nitrate risk calculations and whether the risk calculation and subsequent reporting should be based on a field or **management block or a nitrate loading risk unit**. These concepts continue to be a major source of confusion given the dynamic nature of our local crops. Requiring a specific unit could be very troublesome, especially if a grower is diverse or has a relatively short crop duration, which could result in tracking and reporting on hundreds of blocks or crop rotations for even a modest farming operation.

We ask you to consider our experience in assisting members with implementing the Order in developing your recommendations and being mindful of the tremendous impact of your recommendations on the future of agriculture in California.

Sincerely,

Claire Wineman

Claire Wineman
President
Grower-Shipper Association of Santa Barbara and San Luis Obispo Counties