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December 21, 2017

Submitted via email

State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor (95814)  
P.O. Box 00  
Sacramento, CA 95812-0100  
ATTN: Ms. Jeanine Townsend, Clerk to the Board



**Re: Comments to A-2239(a)-(c)**

Dear Ms. Townsend,

Thank you for the opportunity to comment on the proposed Waste Discharge Requirements General Order No. R5-2012-0116, Revision 4, (ESJ WDR) for Growers within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group. Farm Bureau of Ventura County (FBVC) is a private, nonprofit education and advocacy organization representing the interests of the county's agricultural industry. It also manages the Ventura County Agricultural Irrigated Lands Group (VCAILG), a discharger group formed to facilitate grower/landowner compliance with the *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands within the Los Angeles Region* ("Conditional Waiver", Order No. R4-2016-0143), which is in its third iteration, and other related water-quality regulations (e.g. total maximum daily load monitoring and compliance). Over 1,400 property owners, representing 81,807 acres (88%) of the irrigated agricultural acreage in Ventura County, are enrolled in VCAILG.

This high level of grower participation in VCAILG is just one of many indicators of the success Ventura County's irrigated lands program has achieved in over a decade of operation. It also demonstrates the seriousness with which the local agricultural community takes its responsibility to protect water quality. Those growers have collectively spent more than \$17 million over the past decade to participate in VCAILG and comply with the waiver's monitoring, reporting and education requirements and total maximum daily load (TMDL) responsibilities. They have invested millions more implementing best management practices — installing high-efficiency irrigation systems, filter strips, detention basins and other measures —to address specific impairments.

We request that the SWRCB consider the following comments before adopting the WDR. FBVC, serving as the administrator of an agricultural discharger group, also referred to as a Third Party, has focused its comments on the precedential components of the ESJ WDR (SWRCB/OCC Files A-2239(a)-(c)).

### **1. Requirement to Participate in Outreach Events**

FBVC supports the requirement for uniform participation in outreach events. FBVC currently provides a robust education and outreach program for VCAILG members in compliance with the Conditional Waiver. All VCAILG members are currently required to attend two hours of education courses, annually. We agree with the SWRCB that education programs are a useful mechanism for informing farmers of the water quality issues in their area as well as sharing applicable management practices and resources for assistance.

## **2. Reporting of Individual Data (Farm Evaluation and INMP Summary Report)**

In general, FBVC is concerned about the precedential nature of the requirement to submit individual Farm Evaluation and Irrigation and Nitrogen Management Plan (INMP) data associated with unique, anonymous Member identifiers (i.e., Anonymous Member ID). Our current system for Farm Evaluation data involves retention of individual surveys at each farm and by the VCAILG, which can be accessed by Regional Board staff as needed during site visits or inspections. Individual surveys and data are not submitted to the Regional Board. This is the preferred reporting approach for farm specific management practice information. The aggregate reporting to the Regional Board by drainage area or subwatershed is the appropriate scale to relate to water quality conditions and ensure benchmarks are being attained or progress is made. Based on all the points at which the Regional Board either develops protocol or must approve the approach and values being used for calculations and tracking of practices, we disagree that individual information is necessary for oversight. FBVC also believes that the individual data reporting opens up farmers to lawsuits, particularly given that anonymous reporting is not guaranteed for either the Farm Evaluation or INMP Summary Report data.

Please consider the following recommendations and comments:

- Regional Board approves the Farm Evaluation template and may request underlying data. This approach provides the Regional Boards with the ability to investigate discrepancies or other concerns, while not allowing individual farm information to become public record. The volume of data created and that would be submitted is not what's needed to oversee and evaluate the progress being made under an irrigated lands regulatory program. Losing limited staff time to sort through the minutia of this level of reporting reduces the ability of the Regional Boards to effectively manage the overall program, handle enforcement, and work with the Third Party in problem areas. It also adds an additional cost and reporting burden in terms of Third Party staff time.
- State Board specifies minimum requirements for the INMP and the INMP Summary Report and templates must be approved by the Regional Board. Additionally, the Regional Board must approve crop specific values for nitrogen removal. If Third Party groups are already required to summarize information relating to A/R nitrogen ratios and the A-R difference for submittal by crop type and drainage area, verification of information without providing individual farm data may simply be done by providing a spreadsheet of the formulas used in the calculations referencing the templates and crop removal coefficients, all of which went through Regional Board review and approval. Simple summary statistics of the numbers would provide the information necessary for Regional Board staff to then focus their resources on site visits, or comparing the reported values for certain areas as compared to their water quality results.
- Finally, FBVC is alarmed by the caveats described in the ESJ WDR Order related to compelling field-level name and location information in relation to Farm Evaluations and the INMP Summary Reports; particularly Order Section II.A.5.ii. Based on the rationale provided, not only are Third Parties being asked to take on a major data tracking effort to compile and report individual information, but farmers are not provided assurance that their information will remain anonymous. These components of the ESJ WDR program significantly increase the Third Party costs to be passed on to the farmers, which diminishes the value of the discharger group system.

We support the current aggregate reporting as the most effective management approach, and we do not believe that individual data records, even if associated with an "Anonymous Member ID," should be required submittals. Our concerns regarding data reporting are further detailed in Comment 3 (Farm Evaluation) and Comment 7 (Outliers for Nitrogen Application).

## **3. Farm Evaluation**

FBVC also supports the requirement for submission by the Third Party of a Farm Evaluation summary, reflecting aggregated data from all Members, every five years. As stated above, FBVC

disagrees with the precedential nature of the requirement to submit individual Farm Evaluation results associated with unique, anonymous Member identifiers (i.e., Anonymous Member ID). FBVC believes that this volume of individual data will not be useful, especially since a summary of aggregated data is already required to be provided by the Third Party. It is unclear to us what benefit individual data records will provide to the Regional Board or to the overall irrigated lands program. The ESJ WDR states,

*“Availability of the underlying individual field-level data to the Central Valley Water Board is important for verification of the data and the analyses prepared by the Third Party as well as ensuring that the Third Party is following up appropriately with the Members that warrant additional assistance. The individual field-level data will also support Central Valley Water Board analyses to identify effective and ineffective management practices”* (Order Section II.3.c, p. 32).

In response, FBVC has the following suggestions:

- **Verification of data and analyses:** We are of the opinion that using individual data records to duplicate the work required to be completed by the Third Parties is not an effective use of Central Valley Water Board staff time. The irrigated lands program would instead benefit from bringing all growers into compliance with the WDR.
- **Follow-up with Members:** We recommend that rather than using review of individual data records as an oversight mechanism for Third Party actions, Central Valley Water Board staff use the submitted, aggregated data summaries to assist in identifying prioritized drainage areas that would benefit from site visits to individual farms by staff.
- **Management Practice Effectiveness:** Our understanding is that management practice effectiveness is best evaluated on a larger scale and in relation to water quality outcomes over time. Effectiveness assessment can be conducted by generally reviewing the level of management practice implementation within a drainage area along with the water quality monitoring results for multiple drainage areas. FBVC believes that an aggregate overview more accurately reflects program effectiveness over time. This conclusion is supported by a number of factors that complicate the evaluation of small or individual-level data analysis. First, due to the high variability present in a field environment, as opposed to a controlled research environment, it is impossible to evaluate cause and effect and make a direct linkage between the implementation of specific management practices and water quality outcomes. Second, it is necessary to consider the complexity of real-world relationships when assessing effectiveness and drawing conclusions. Individual field-level data will likely not allow staff to determine if certain management practices are actually causing an observed effect or a desired change. Finally, outcomes are also related to the cumulative impacts of all management decisions as well as those factors outside farmers’ control – characteristics of storms that are sampled, weather patterns, source water quality, pest populations, etc.

#### **4. Sediment and Erosion Control Plans**

FBVC appreciates the discretion given to regional boards regarding how to handle the documentation and reporting of sediment and erosion control practices. Concern regarding this requirement arises from the additional planning, documentation, and need for certification of the plan that is specified in the ESJ WDR. It is our opinion that Farm Evaluations are sufficient to handle the documentation of sediment and erosion control practices, and, in areas where sediment related water quality problems have been documented, the Third Party should notify those farmers in the impacted drainage area and require additional management practices on those farms, which would be documented in the next Farm Evaluation. Furthermore, certification of such plans is a significant cost and additional burden, particularly to small farmers. The assistance agencies noted in the ESJ WDR that may certify such plans do not have sufficient staffing to complete this planning requirement. The time burden to self-certify as an option for plan completion must also be considered in the context of the regular outreach and education required

for all Members, as well as that related to nutrient management planning. Hiring a Qualified Sediment and Erosion Control Plan Developer, in addition to the cost of producing certified INMPs, is cost prohibitive to many small farmers.

## **5. Irrigation and Nitrogen Management Plans**

The precedent setting requirement in the ESJ WDR for all members (regardless of groundwater vulnerability designations and surface water quality) to prepare certified irrigation and nitrogen management plans (INMPs) and to submit summary data from the plans to the Third Party is of concern to FBVC. Region 4 Conditional Waiver's Monitoring and Reporting Requirements specify that that a Water Quality Management Plan (WQMP) be developed for a responsibility area only in the case of exceedances of Water Quality Benchmarks for nutrients or where agriculture is identified as a responsible party for a nutrient TMDL. The WQMP is required to identify specific management practices, including improved irrigation efficiency to reduce runoff, certified nutrient management plans, including a consideration of crop-specific applied/removed ratios for nitrogen where available, and treatment systems or control systems to remove nitrogen from discharges. We support our region's targeted strategy where additional regulatory burden is related to a documented need for action as opposed to an across the board approach.

## **6. INMP Summary Report**

FBVC is concerned about the precedent being set by the ESJ WDR for reporting of nitrogen application data, annual A/R ratios (nitrogen applied over nitrogen removed), and multi-year A/R ratios. We have several concerns regarding these new requirements being applied statewide, including regional appropriateness and the additional burden being placed on farmers for accounting of nitrogen application and removal, as well as the development of nitrogen removal coefficients.

There are numerous cropping systems in Ventura County, and elsewhere in the state, where the tracking of nitrogen application, development and use of nitrogen removal coefficients and final use and interpretation of the A/R ratio will be extremely complicated and we are not convinced of the value of this significant new workload. This nitrogen tracking methodology makes sense in permanent and single annual crops; however that is not always a common farming approach. In many places, multiple crop changes take place within a given year; some farms have up to four crop rotations. Moreover, nursery operations grow a variety of crop types simultaneously within a farm area, some in ground and some in pots, each with different nitrogen removal capabilities and potential for leaching. In addition to crop rotations and variety, another consideration is turnover in growers and operators on the same field; this may change multiple times within a year. Calculating an A/R ratio that fluctuates this frequently on the same piece of land is not going to provide a valuable metric of comparison over time in these farming areas. The nitrogen report for a single mid-size vegetable operation would likely contain thousands of data points, a level of complexity that would clearly overwhelm the analytical capacity of regulatory staff.

In addition to the sheer variety and changing landscape of crop types, our membership comprises many farmers who grow specialty crops on small acreages. As shown in the table below, as of 2016, more than 90 types of crops are grown within Ventura County, including many that are grown on small acreages.<sup>1</sup> Nearly half (44) of these crop types are each grown on less than 20 acres throughout Ventura County. Furthermore, the second largest crop acreage is designated as row crops, which is generally farmed in the multi-cropping pattern previously described. To make the required calculations, the row crop acreage would need to be further subdivided to appropriately apply the correct nitrogen removal coefficients for each of the individual crops that are grown that fall within that broader category. Under these conditions, it will be extremely difficult, if not impossible, for Third Party staff to determine nitrogen amounts associated with each unit of crop yield for this substantial list of crop types.

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<sup>1</sup> Ventura County Crops Shapefile. Ventura County Agricultural Commissioner's Office. Updated September 26, 2016.

<b>Crop Type</b>	<b>Acres</b>
sapote	0.23
rhubarb	0.26
banana	0.31
rose	0.49
vegetable seed	0.59
hydroponic	0.72
orange and avocado	0.87
greenhouse	1.1
mango	1.1
orchard floor	1.4
orchard	1.4
corn	1.7
nectarine	1.8
peach	1.9
garden	1.9
lime	2.0
lavender	2.0
cucumber and tomato	2.5
berries	3.2
prune	3.3
cover crops	3.5
fig	3.8
pear	4.4
plum	5.1
mixed citrus	5.4
persimmon	5.4
kiwi	5.5
mushroom	7.0
mixed commodity	7.8
macadamia	8.5
cherry	9.0
mixed fruit	10
citrus	11
mixed orchard	11
row crops and strawberry	12
guava	12
flower seed	12
pomegranate	12
lemon and orange	12
orange and lemon	12
cilantro	12
cactus	13
lettuce	13
tangelo	15

<b>Crop Type</b>	<b>Acres</b>
lemon and row crops	20
cucumber	21
xmas tree	23
mint	25
stone fruit	28
artichoke	29
bean	29
onion	32
brussel sprout	34
kale	47
olive	54
interplanted	58
apricot	69
potato	71
grape	76
pumpkin	83
grapefruit	89
cherimoya	98
barley	105
watercress	131
grain	134
tomato	135
cabbage	147
walnut	164
lemon and avocado	211
alfalfa	221
herbs	237
blackberry	261
carrot	269
apple	342
sod and row crops	345
pasture	358
pepper	524
sod	585
oat	709
hay	775
cut flowers	957
blueberry	1029
celery	1540
tangerine	2059
nursery	2674
raspberry	4394
orange	5304
strawberry	10755

Crop Type	Acres
lemon	18731
row crops (unspecified)	20029
avocado	21471

Our apprehension regarding the challenges of developing nitrogen removal coefficients for the extensive crop types in the County is not to be overshadowed by concerns for our members’ anonymity. Based on the very small acreage of many of these specialty crops, any INMP summary report data would publicly identify these unique operations. This is another reason why FBVC is dismayed to see all language in the ESJ WDR regarding allowances and provisions for small farms stricken from the revised draft. Small farming operations have limited resources and this extra reporting burden is not relative to their potential impact to water quality. This fact should have been recognized by retaining sensible, risk-based provisions for these farms.

### 7. Outliers for Nitrogen Application.

The ESJ WDR requires annual identification of outliers, based on the INMP Summary Report data, as well as subsequent Third Party response to those Members identified as outliers. FBVC supports the phased approach to outlier identification outlined in the ESJ WDR Order and appreciates the flexibility given to the Third Party to use its discretion to identify a set of Members for follow-up and/or develop an initial standard for outlier identification.

FBVC also agrees with the following statement in the ESJ WDR Order regarding the role of the Third Party with respect to outlier response:

*“We continue to believe that the Third Party is best suited (both in terms of expertise and in terms of developed relationships) for the role and responsibility of follow up with Members to address any potential over-application. The Third Party is the lead in outreach and education and as part of that responsibility will be expected to follow up with Members who are outliers for reported AR data.”*

However, we do not concur with the approach outlined for reporting individual AR data. Our overarching concerns regarding data reporting are discussed above in Comment 2 (Reporting of Individual Data) and Comment 6 (INMP Summary Report). FBVC strongly recommends that the AR data be reported within the INMP Summary Reports in a manner that keeps the Regional Board informed of progress being made, while simultaneously preserving the anonymity of the field-level AR data. For instance, in the first INMP Summary Report, the Third Party could report the number of outliers identified within each drainage/subwatershed/or responsibility area. In addition, the Third Party would document the response and follow-up actions that were taken at the drainage area level, such as notification and outreach, attendance at INMP self-certification training, and/or working with a specialist to obtain certification of the next INMP. Implementation of specific, additional and/or improved types of nutrient management BMPs at the drainage area level would also be documented in the INMP Summary Report and summarized for reporting to the Regional Board.

In subsequent INMP Summary Reports, reporting the same type of data and information would allow the Third Party to demonstrate change over time—for instance, improved (lower) multi-year A/R ratios and fewer outliers identified within each drainage area, both metrics reflecting reduced nutrient application by Members. FBVC feels that this type of broad overview and assessment will be more beneficial to the irrigated lands program than non-anonymous reporting of individual “repeated outliers” that may be triggered by a specified number of consecutive years of high A/R ratios.

Lastly, FBVC is concerned about the lack of clarity in the following statement (emphasis added):

*“If Third Party follow up does not yield **sufficient progress in water quality** in the coming years, we will reevaluate this approach and consider adding to the program a trigger, such as three*

*consecutive years of high A/R ratios, that will require non-anonymous reporting of that Member to the Central Valley Water Board.”*

We suggest that the Regional Board clearly define and describe how it intends to track “progress in water quality” for both surface water and groundwater, as well as what timeframe is meant by “in the coming years.” The current language does not reflect the complexity of the linkages between agricultural management practices and surface water and groundwater quality. The focus of the INMP requirements is on reducing nutrient loads to potentially improve groundwater quality over the long term. The nature of the interaction between impacts of management practices and groundwater is complex, and many factors (e.g., soil type, irrigation practices, groundwater vulnerability and basin connectivity) influence the impact of improved management practices on the quality of water within a particular basin. The results of a few years’ worth of AR data will likely not be correlated with any near-term, observed changes in groundwater quality. It is the view of FBVC that, in the short term, the AR data will primarily serve to inform the Regional Board of the nutrient load and potential, future impacts to groundwater quality. As such, we reiterate our recommendation that such data be reported at the drainage area level only.

## **8. Surface Receiving Water Monitoring.**

FBVC agrees with the SWRCB and the findings of the Agricultural Expert Panel regarding the belief that “receiving water monitoring is generally preferable to field-specific water discharge monitoring in irrigated lands regulatory programs” and that it is a “reliable and effective methodology for identifying water quality issues without resorting to more costly end-of-field measurements.”

The VCAILG surface water monitoring program has been in existence since 2007. Most of the monitoring sites have remained the same, creating a history of data that is invaluable for documenting trends and informing progress towards meeting water quality benchmarks. In the last ten years, any site changes have been initiated to better represent the agricultural discharges within the County and take into account the information gained out in the field. Monitoring locations and/or new constituents have also been incorporated into the monitoring program to evaluate TMDL compliance over the years. Furthermore, the VCAILG participates as a responsible party and stakeholder in a number of TMDL compliance programs, which operate monitoring programs that are additional and complementary to the Conditional Waiver monitoring. These include the following:

- Calleguas Creek Watershed TMDL Compliance Monitoring Program. This program fulfills the monitoring requirements of five separate TMDLs. These TMDLs address nutrients, organochlorine pesticides and polychlorinated biphenyls, toxicity, chlorpyrifos, and diazinon, metals and selenium, and salts. This monitoring program encompasses receiving water sites, POTW discharges, and urban and agricultural land use sites.
- Revolon Slough Trash TMDL
- Ventura River Estuary Trash TMDL
- Ventura River Algae TMDL. This program accomplishes the required receiving water monitoring specified in the TMDL.

We would like to offer the following considerations and concerns regarding the use of a yet-to-be-convened expert panel’s findings to inform a statewide surface water monitoring framework:

- Monitoring irrigated agriculture is not a singular effort documented solely under the monitoring and reporting provisions of a Conditional Waiver, Agricultural Order, or WDR. Within Ventura County, a number of efforts and monitoring programs exist to provide an understanding of water quality in the receiving water and the impacts of irrigated agriculture. Improvements in monitoring coordination and permitting of all discharging entities could improve the regulatory cost and burden while also streamlining the processes by which regional boards receive information.



- The agriculture-urban-open space interface is unique, even within regions. The Los Angeles Region has two separate monitoring and reporting requirements within the Conditional Waiver due to these distinct differences between Los Angeles and Ventura Counties. Within Ventura County, more than 90,000 acres of irrigated agriculture coexist alongside an equal number of urban acres. Better-integrated monitoring and cooperation between the wide variety of point and non-point sources in the local watersheds, as opposed to programs that operate in silos, would be particularly beneficial in this setting.
- Local knowledge is crucial in developing monitoring programs and determining drainage areas. A program's history should also be considered, as there is value in having a long time series to evaluate change. Any statewide framework should be flexible and acknowledge the value inherent in the data collected under current monitoring programs.
- The priorities and constituents of concern, while many are similar, differ between the regions throughout the state, as do farm size, overall agricultural acreage, crop types, hydrology, watershed area and complexity, size and flow of waterbodies, and intermingling of discharges from different regulated entities. Taking these factors into consideration, the VCAILG program currently monitors a mix of tributaries and agricultural drainage ditches to characterize dry weather and stormwater runoff from irrigated agriculture. Any monitoring framework to be applied statewide needs to allow flexibility to consider local conditions and be open to local interpretation by those with boots-on-the-ground experience.

Should the State Board move forward in convening a surface water monitoring expert panel, we strongly suggest that the panel evaluate watershed based monitoring approaches to fulfill requirements of multiple dischargers and permitted entities.

## **9. Groundwater Vulnerability Determinations**

The State Board has rejected local geology and fate and transport realities in their decision to impose uniform requirements on all agricultural areas, as illustrated by the following statement:

*“In most instances, groundwater is vulnerable to agricultural nitrate impacts, regardless of the time it takes for those impacts to appear in groundwater due to soil conditions, geologic conditions, and/or depth to groundwater.”*

In many basins, the groundwater that is put to beneficial use in agricultural areas (for drinking water or irrigation) is extracted from deep wells screened in confined aquifers that are hydrologically separated from shallow groundwater by one or more aquitards. In such areas, agriculture is being practiced far from recharge zones, and percolation is unable to affect groundwater quality in nearby extraction wells (unless well casings are defective). Attempts to correlate management practices to the quality of beneficially used groundwater in the same locale will be fruitless in many basins, regardless of how many decades of continuous study takes place. For this reason, the State Board should acknowledge that vulnerability designations are a legitimate basis for restricting the locations wherein groundwater monitoring data from existing wells will be used to assess agricultural management practices.

## **10. Drinking Water Supply Well Monitoring Requirement**

Implementation of the drinking water well sampling requirement will be highly problematic in areas where the tenant growers on parcels are continually changing. It is not clear how the requirement for drinking water well monitoring and notification will be implemented in cases where multiple growers are farming a property that contains a domestic water well, or where different growers lease a parcel with a domestic drinking water well from year to year. In such cases, who has responsibility for scheduling the sampling, tracking the nitrate concentrations over time, and pulling the trigger on notification?

In addition, the use of an agricultural WDR or Waiver to address the issue of nitrate in private domestic drinking water wells unfairly targets growers for oversight of drinking water quality while giving a pass to owners of private drinking water wells in other (possibly adjacent) land

uses that contribute nitrate to unconfined groundwater, such as residential areas reliant on septic systems.

### **11. Groundwater Quality Trends Monitoring**

Annual updating and reporting of groundwater quality trends is excessive and not meaningful. Appending single annual data points to a time series is unlikely to alter statistically significant trends if the baseline trend was established using a climatically valid period of historic data (usually multiple decades). While data sets can be updated annually, trends reports should be required only every 3-5 years.

Overall, while we understand the State Board's desire to provide guidance and direction to the agricultural regulatory program statewide and incorporate recent expert findings, we also strongly value the unique approaches developed on a regional, and at times smaller countywide level, to most appropriately address the water quality threats and problems by taking into consideration local agricultural operations.

FBVC appreciates this opportunity to provide comments on the ESJ WDR and the precedential decisions of the State Board. Thank you for your consideration of these comments. If you have questions, please contact me at (805) 289-0155.

Sincerely,

A handwritten signature in black ink that reads "John Krist". The signature is fluid and cursive, with the first name "John" being larger and more prominent than the last name "Krist".

John Krist, CEO  
Farm Bureau of Ventura County

cc: Edgar Terry, chairman, VCAILG Steering Committee  
Nancy Broschart, Farm Bureau of Ventura County  
Amy Storm, Larry Walker Associates  
Ashli Desai, Larry Walker Associates  
Diana Engle, Larry Walker Associates