FARM BUREAU
MONTEREY

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May 31, 2016

State Water Resources Control Board
Att: Jeanine Townsend, Clerk to the Board
1001 I Street, 24th Floor
P.O. Box 100
Sacramento, CA 95812-0100

VIA: Email to commentletters@waterboards.ca.gov

**RE: Waste Discharge Requirements within the Eastern San Joaquin Watershed**
**SWRCB/OCC Files A-2239(a)-(c)**

Dear State Water Board Members:

Monterey County Farm Bureau represents family farmers and ranchers in the interest of protecting and promoting agriculture throughout our County. We strive to improve the ability of those engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of our local resources.

Throughout the course of the Central Coast Irrigated Lands Program (ILP-3), our organization has been actively participating as a technical advisor to local growers on elements of the program. As you are well aware, the ILP-3 has been fraught with distrust and contention for years, yet the agricultural community has come together to form a groundwater monitoring coalition that has supplied invaluable information on water quality conditions to the regional board staff.

Regulatory compliance monitoring, including the surface monitoring program established in the first irrigated lands program of 2005, is costing growers and farm operators significant dollars per acre for sampling, data management, compliance reporting and coalition management. Indeed, Central Coast farmers and ranchers have stepped up to meet the challenge and continue to be engaged in crafting a workable program that meets the objectives of the Agricultural Order adopted in 2012.

The one constant of this irrigated lands program is the continual change to the compliance requirements for growers participating in the coalitions; the regional board staff continues to propose changes to the program, significantly reducing the viability of our groundwater coalition by compromising their functionality and relevant difference to the individual reporting option. These actions significantly impact the ability of the coalition to manage their required functions to the benefit of those who fund their operations.

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There is no way to minimize the acrimony that has occurred here on the Central Coast in the past seven years. Most growers and landowners feel the regional water board staff is adversarial in their approach to the irrigated lands program, and any future program changes will continue to impact this relationship harshly. As a technical advisor, complaints about the distrust of Central Coast staff continue to dominate every meeting and conversation about compliance with the irrigated lands program. While some improvements have been made in the last year to 'mend some fences' over the prior acrimony, the underlying fact remains that the agricultural community feels that water quality regulations are becoming unrealistic in their concepts and reach well beyond any attainable standard. As an example, the recent process to adopt a Total Maximum Daily Load for Sediment and Toxicity in the upper Salinas Valley largely ignored the agricultural community's call for reason in setting standards that can be achieved realistically.

The relationship between the agricultural community and the regional water board staff took a turn for the worse in February 2016 with the release of trade secret information related to nitrogen applications that was specifically promised by regional water board staff not to be released through a public records act request when the program was adopted in 2012. These 79 growers were initially not given any opportunity to justify their claim of trade secrets, and when confronted, regional board staff relented and allowed farm operations to file additional information. In spite of the agricultural community's pleading to not release information that was promised to be held as confidential, and farm operations justifying their trade secrets, the opposite occurred. There will be no possible way that the agricultural community will trust that individual farm data supplied through annual compliance reporting or through the monitoring coalitions will remain outside of the public domain; that promise was broken and cannot be repaired.

Growers in the Salinas Valley feel they are being set-up for failure by ever-tightening water quality standards and compliance requirements. Indeed, many small farmers are now experiencing a tipping point where their operations can no longer be financially viable simply because they cannot afford the required expert certifications for water quality compliance.

With this construct in mind, Monterey County Farm Bureau offers these comments on the proposed Irrigation Lands Program for the Eastern San Joaquin Watershed (ESJ ILP). The State Water Board staff has indicated that this proposal will become a template for all irrigated lands programs around the state, and that invokes a number of concerns for farm operations here on the Central Coast.

Precedential Mandate of ESJ ILP Ignores Regional Aspects of Agriculture

The proposal indicates that all regional water boards will be required to update their irrigated lands programs to match the adopted program of ESJ ILP, if approved. We object to this proposed mandate as a one-size-fits-all program can never work for as diverse an agricultural state as California.

Central Coast Agriculture is significantly different than any other region in the state. We produce the majority of leafy greens, vegetables, grapes and strawberries that are part of a healthy diet. These crops are fast turning, require significant inputs and are exposed to numerous pests and

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diseases. The investments made in preparing a field, planting a crop, and harvesting are significantly higher than other crops produced around the state. Additionally, complex crop rotation functions are in place to ensure that natural resources are managed for continued farming activities; a large portion of these fields are leased and farm operations rotate leases to different fields on a nearly-annual basis.

Complexity of our agricultural processes includes multiple crops in a single year off one field; the compliance requirements of an irrigated lands order becomes a multitude of data points that must be collected annually. A single farm operation may have as many as 3,000 reportable crops on 1,000 acres or less. This is a significant burden for a small farm operation; even for larger farm operations, this requires full-time personnel to manage the data collection, collation and review, and timely reporting.

The Eastern San Joaquin Watershed is much different in crops and climate than the Central Coast. Comparisons between the two regions leave little to compare because they are so different. The Central Coast has continuously struggled to gain understanding with regulators on just how different our region is from the other parts of California. Significantly, Monterey County alone produced $4.5 billion of fresh vegetables, leafy greens, grapes, berries and other crops in 2014, almost 150 different crops and varieties. Other regions of the state do not approach this same diversity or level of intense production.

Flexibility in determining how objectives for water quality are achieved needs to be on a regional basis, taking into account local production cycles and practices. We have strived for recognition that Central Coast Agriculture is progressive, yet continuously are misunderstood by regulators that our operations can fit neatly into a uniform set of requirements, monitoring and reporting, and compliance.

We urge that regional water boards be allowed to set their own regulatory constructs for achieving water quality objectives. Without this flexibility to local differences, any irrigated lands program mandated will set the Central Coast agricultural community up for failure, and indeed impact the viability of local farm operations.

Field-level Locational Reporting is Data Overload

Growers on the Central Coast have continuously lobbied for aggregated informational reporting. This has been met with little success, as our groundwater coalition is pressed continuously to release information at a farm level detail by regional water board staff. This exposes individual farm operations to a number of consequences.

First, the very concept of a monitoring coalition is to secure data and manage that data into a meaningful reporting of regional influences on water quality. Individual data points do nothing to illustrate trends in water quality (improvements or not) and subject the data to continuous interpretations that are not always beneficial, depending on the intended purpose of that interpretation.

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As an example, the Central Coast Groundwater Coalition proposed as part of their annual reporting a set of contour maps indicating groundwater quality throughout the managed areas of the coalition. These maps provide a perspective on areas of greater concern and focuses the need for additional management practices on these areas in a visual format that can readily be understood. Upon agreement of a confidence level with regional water board staff, these contour maps were initially presented after the first round of well sampling. These maps were then rejected as not showing a near 100% confidence level and thus not accepted by the regional water board as relevant to our groundwater reporting requirements. Yet, these maps have been utilized in assessing groundwater quality of the Salinas Valley area by the State Water Board staff; indeed, one regulatory body finds this type of graphical data important while another determines it is simply insufficient in detail.

This type of contradictory reporting interpretation worries the agricultural community and presents a mixed signal data set to the public. We believe all individual data points should be submitted to an aggregator that publishes results under a consistent set of acceptable reports and graphs.

Next, the reporting of data on field-level location will generate significant amounts of raw data points that will need to be reviewed, validated and aggregated to determine any trends in water quality improvements. With the number of crop cycles for vegetables and leafy greens, the State Water Board is minimizing the amount of data that will transfer to both regional water boards and the State Water Board attempting to comply with this requirement; the volume of data that will need to be managed by regional water boards or the State Water Board staff could be overwhelming. This could truly redefine the definition of big data and cause serious processing cycles on State Water Board computer systems.

We express concern that the ESJ ILP requires the filing of aggregated data reports by coalitions in addition to the raw data points submitted to either regional water boards or the State Water Board by individual farm operations. Farm operations already utilize the aggregated monitoring reports to gauge their own achievements against those of their sub-watershed area; raw data points are not useful in this context and result in duplicate data sets; raw data points should be submitted for aggregation only to coalitions.

Currently, ESJ ILP coalitions collect data from growers, aggregate the data points, and report to the Central Valley Regional Water Board. This data is submitted in a manner that provides only township location points, not field-level locations. Allowing for aggregation of data on this level not only provides a bigger picture representation of compliance with water quality objectives, but protects the individual grower from public exposure of specific farm information related to water use, nitrogen applied, well locations and other cultural practices. As currently in place, the Central Valley Regional Water Board *prefers* this reporting level of data and yet retains authority to review the raw data privately.

It should be noted that the coalitions, through their efforts to provide aggregated data reporting to regional water boards, are completing an expensive and intense statistical analysis that regional water boards may not have sufficient staff time to complete on their own.

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We advocate for the aggregated analysis and reporting of data by coalitions throughout all irrigated lands programs that are approved by the State Water Board. Submitting raw data points to either regional water boards or the State Water Board directly does not tell the bigger picture story of water quality objective achievements or trends.

Lastly, public information of field-level location data points could jeopardize food safety and security, targeting specific farm operations for potential litigation or civil disobedience. We remain concerned that individual farm operations will be exposed to much public scrutiny, taking away any possible efforts towards actual water quality improvements if attention is turned to protecting fields from harm, either physically or legally.

We urge the State Water Board not to adopt a mandate that field-level location data points be a reportable element of any irrigated lands program. There is too much data to manage and too much risk of public exposure for farm operations.

Vulnerability Determinations in ESJ ILP Proposal Flawed

Currently, both the ESJ ILP and the Central Coast ILP-3 distinguish between low and high nitrogen loading vulnerabilities. This has placed the burden on a smaller number of farm operations but allows those with low risk for nitrogen loading to groundwater (a majority of the farms in the Eastern San Joaquin and Central Coast watersheds) to maintain a reduced level of reporting and compliance requirements.

The ESJ ILP proposal eliminates this distinction, placing all farm operations within the same parameters for load risk. This seems very arbitrary and lumps all farm operations into preparing a certified nitrogen management plan, not recognizing any low risk loading or providing credit to those farm operations who demonstrate that their load risk is effectively reduced or minimized through cultural differences and best management practices.

This also penalizes those who use little or no nitrogen in their operations, such as irrigated pasture lands. Effective nitrogen management plans should be in place for those farm operations that have pre-determined loading potential only, not for every farm operation that utilizes water as an input.

As demonstrated in the current Central Coast ILP-3, segmenting and prioritizing farms by size is random and counter-intuitive when considering who is making valued efforts towards meeting water quality objectives. In this case, size does matter, as larger farm operations have greater resources and have been the most proactive in implementing new technologies and state-of-the-art on-farm practices.

We express concern that the all-inclusive requirement for certified plans relies on a robust professional community that can make those certifications available to farm operations in a timely manner. The Central Coast region is already experiencing a shortage of these certified crop advisor professionals; requiring all farm operations to have a professional certification for their nitrogen management plan places most in a position of obtaining the self-certification test, as noted as an alternative in the ESJ ILP proposal. These programs take time to become certified,

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most often by a higher educated individual within the farm operation who has other cultural responsibilities. Small farm operations may not be able to afford either the professional certification or the self-certification test process due to limited resources.

Nitrogen management plans should remain on the farm for all farm operations, regardless of loading risk potential. Submission of these plans to either the regional water boards or the State Water Board exposes trade secrets and cultural practices to public scrutiny and public record requests and places too much information in the public domain for interpretation.

Data should be collected only on those farm operations that are rated as high risk for nitrogen loading, and only aggregated data should be placed in the public domain.

Nitrogen Uptake Ratios Are Not a Proxy for Groundwater Quality

The ESJ ILP proposal mandates that coalitions collect data at field-level locations detailing nitrogen uptake ratios. While many of these ratio standards are not yet set for the vast majority of the crops grown in the Central Coast, requesting coalitions to establish these ratios adds responsibility for management practice effectiveness review that may not be core to the value or expertise of the coalition's function.

The direct link to groundwater quality and nitrogen uptake ratios cannot be established; this is guilt by association. Simply utilizing nitrogen uptake ratios does not account for other factors such as variations in weather, irrigation, and cultural anomalies. Utilizing these ratios does not verify that further groundwater degradation is certain to occur should there be an 'outlier' ratio reported. Further, use of nitrogen uptake ratios cannot determine if beneficial uses are being improved or protected because the ratios cannot be tied back in context to any management practice implementation (or combination thereof).

Growers in the Salinas Valley view uptake ratios as problematic for a number of reasons. Variations of crop quality are influenced by weather, humidity, pests and diseases, and soil conditions. Varieties of the same crop may have differing requirements depending on where the field is located, the season of the year, and expected finished product quality. With short-turn crops such as leafy greens and vegetables, farm operations must be nimble in their responses to crop needs at any point during the growing cycle. Following a crop uptake ratio standard may artificially limit the ability of the farm operations to make product quality decisions that impact the price received for the crop at harvest.

Additional research is needed to determine specific uptake of water at the root zone. Testing and research of how quickly water moves through the root zone, into the vadose zone, will help inform farm operations on how to manage irrigation and fertilizer applications. Currently, soil moisture sensors are being utilized on over 40,000 acres in Monterey County, helping farm operations understand their crop water needs and, correspondingly, the nitrogen required to bring the crop to market quality. Yet, this science is only now beginning to be implemented on a broader scale, and with the wide variety of crops in the Central Coast region it will take time to fully discover the crop uptake values and disseminate that information to the broader grower community.

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Calculating crop uptake ratios requires significant investment in soil, water, and tissue testing to determine the final ratio value. Much of this testing is done by a small number of laboratories, limiting the bandwidth for adequate and timely testing of these samples. While many farm operations may already be conducting these sample tests as part of their best management practices and sustainability initiatives, the additional volume of sample testing anticipated by mandating these ratio validation tests for all field crops may simply overwhelm the professional services available.

Nitrogen uptake ratios are not a proxy for groundwater quality nor can the financial investment in these ratios be justified as meeting water quality objectives.

Irrigation Method Reporting Requires Complex Calculations

The ESJ ILP proposes to include irrigation management in the nitrogen management plan; calculations to be included, based on irrigation method, include crop evapotranspiration rates based on anticipated irrigation applications (measured in inches of water).

Farm operations will be required to predict the amount of irrigation water by crop (and on the Central Coast this is multiple crops per season) to be applied and then estimate the crop evapotranspiration rate based on that predication. These types of calculations are complex and involved, requiring attention to detail when planning multiple crops per field per season in a region with weather variability due to coastal influences.

As surveyed by our Agricultural Commissioner each year, the amount of irrigated lands currently utilizing drip irrigation as the method of water delivery is over 60% annually (and has achieved this level for a decade or more). Crops that can be grown utilizing drip irrigation are standard practice; however, field preparation for some of the Central Coast crops requires broader water applications such as sprinkler delivery of water. How will multiple irrigation methods be included into calculations of water applied to crops, and how should evapotranspiration rates be calculated for field preparation water applications when no crop is present?

Measurements of nitrogen applied through fertigation, where water is applied directly to the root zone of the plant through drip irrigation; the only reasonable point to determine the amount of nitrogen applied is at a central injection point. This may not allow for the broader assumption that nitrogen injected is not what is applied, as some residual of fertilizer elements remains within the irrigation system itself due to the nature of the molecules involved. This may be an inaccurate measurement of nitrogen applied to a crop, and certainly will be difficult to estimate in advance based on predicted irrigation cycles. There are too many variables involved in this type of calculation.

Further, conditions change due to weather, pests and diseases during the cultural cycle of a crop. How will this context be included in the calculations post-harvest? The amount of record keeping by crop could become daunting for any size of farm operation on the Central Coast, and without context the data is just a set of numbers.

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We urge that water use for farm operations should be part of the Sustainable Groundwater Management process now being implemented on a local level.

Coalition Approach May be Compromised

As proposed in the ESJ ILP there is significant concern that the coalition approach to water quality management may be compromised due to excessive data reporting requirements, complicated ratio calculations, additional enforcement mandates, and grower outreach and education initiatives. These all add costs to the coalition, in addition to the current monitoring and sampling programs.

Farm operations will be paying the bill for these activities, and with each layer of responsibility comes additional costs that decrease the amount of funds available to make on-farm improvements to meet water quality objectives. As we have seen on the Central Coast, monitoring and reporting of both surface and groundwater quality is expensive and does nothing to incentivize investments to improve conditions.

To date, coalitions have collected a significant amount of data related to water quality. Intensifying this with additional ratios, crop yields, and well water quality samples ... proposed in duplicate of what is reported to the regional water board and/or State Water Board ... adds unnecessary expense to the process of water quality compliance.

Instead, any irrigated lands program should specifically support the coalitions and their work to gather necessary date to report *in aggregate* on the conditions of any groundwater basin or sub-basin.

ESJ ILP Ignores Sustainability in Practice Programs

One of the higher regarded elements of the Central Coast ILP-3 is the acceptance of Sustainability in Practice (SIP) programs as a means to satisfying specific water quality requirements; currently, the Central Coast Vineyard Team's SIP program is accepted as a way for grape growers to achieve a lower regulatory tier placement through implementation of best management practices that are certified and verifiable.

This SIP program has proven successful in achieving water quality objectives at vineyards, and indeed this program has become a marketing tool for many of the wine producers on the Central Coast. By allowing the certification process, audited by a third party entity, to achieve a measure of regulatory relief, SIP programs provide incentives for those who invest in sustainability and farm practices that make a difference in regional water quality.

The proposed ESJ ILP makes no reference to any SIP program or certified water quality program such as the one accepted by the Central Coast Regional Water Quality Control Board. Serious consideration should be given to including SIP programs as a manner to achieve water quality objectives and relieving those certified farm operations from the more onerous monitoring and reporting requirements of any irrigation lands program.

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By providing the opportunity for the agricultural sector to develop SIP programs for the various crops grown in California, incentives will be in place for farm operations to achieve water quality objectives through third-party certification and at the same time utilize the sustainability practices as a marketing tool for their products. This allows for investments in water quality objectives to be utilized on multiple levels.

Changing Technology Not Factored into ESJ ILP Proposal

Even in Agriculture, nothing stands still. New technologies are developing for irrigation and nutrient efficiencies; new seed varieties will develop plants that may provide deeper roots for more efficient water and nutrient uptake or require fewer irrigation cycles; developments in slow-release fertilizer products could produce longer time frames between applications; more efficient harvesting methods and mechanization may decrease the amount of crop residuals left in fields.

Any irrigated lands order that is ultimately adopted must account for changing technologies and improvements in cultural practices. Pressures from the marketplace will also drive increased efficiencies that will impact water quality and sustainability of natural resources.

It is unclear how a rigid ESJ ILP, with a precedent-setting mandate, will allow for future gains in efficiencies through technology and improvements to on-farm practices. Agriculture has learned to adapt over the decades of production in California and the future will continue this trend; the practices used a generation ago were recognized as progressive at their time, but now seem outdated compared to current cultural practices. With each successive crop, farm operations adapt to new methods that benefit the environment and marketplace simultaneously; not allowing for technology to influence future practices due to rigid regulatory requirements will ultimately stifle research and investment in those technologies. Water quality improvements will come from these types of technology investments, not monitoring and reporting requirements.

Overall Tone of the ESJ ILP Proposal

We find that the additional requirements of the ESJ ILP as proposed will place a significant additional burden on all farm operations, regardless of size. The amounts of data collection and reporting involved, development of various irrigation and nutrient plans (with certifications), and public exposure of individual field-level location data will impose significant impacts to the viability and management of farm operations throughout California.

In the broader context of regulatory oversight, the California agricultural community is under attack from multiple agencies and the legislature. Changes to overtime rules, wage and hour requirements, minimum wage, mandatory paid time off, air quality compliance for on-farm machinery, surface water diversion reporting, drought management and well ordinance restrictions, and marketplace influences are all placing an additional burden on farm operations. All of these cost money and impact the bottom line.

We suggest a softer tone be taken towards water quality compliance by offering incentives to those who achieve the greater improvements. Regulatory relief would be the best incentive to those growers who make this effort and are good stewards of their land and water.

Conclusion

Monterey County Farm Bureau asks for consideration on these points:

- Any irrigated lands order ultimately adopted in any region should be flexible to accommodate for local crops and conditions; the ESJ ILP should not be precedential in its mandate for all future programs.
- Nitrogen ratios cannot serve as a proxy for groundwater quality.
- Field-level location reporting should be aggregated by coalitions and reported to regional water boards at township levels; individual data points should be protected from public exposure and interpretation.
- Only farm operations with high risk for loading should have the most onerous of compliance requirements; recognition for farms with low risk should not be penalized into more complex compliance and reporting requirements.
- Nitrogen uptake ratios are viewed as problematic for the quick-turn crops grown in the Central Coast region.
- Consistency of reporting metrics should be observed throughout all irrigated lands programs that may be adopted in the future.
- Sustainability in Practice programs should be included as an incentive for farm operations to achieve a lower level of regulatory requirements.
- New technologies will continuously improve on-farm operations and decrease environmental impacts to groundwater and other resources.
- Coalitions should be supported with clear operational distinctions for their continued viability and valued for their contributions to data collection and management.
- State Water Board should work collaboratively with the regulated community to find common ground for an irrigated lands program that has achievable goals and rewards those farm operations making improvements with incentives to continue investing in water quality objectives.

Thank you for the opportunity to provide comment on this proposed irrigated lands program.

We are all interested in clean water supplies; the agricultural community wants to be part of the solution but at the same time be respected for the advances made in improving on-farm practices that are changing the water quality paradigm. Continued constriction through onerous regulatory requirements and compliance will negatively impact those farm operations that already operate as good stewards of the environment.

Farming and ranching should remain classified as a non-point source for water quality objectives and regulated as such. These activities take place outside in the working environment, not in factories with specific used water collection points; continued efforts to regulate towards a point-

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source solution, in a one-size-fits-all construct, will place the agricultural sector into a no-win situation and impact the viability of the small farms so desired by the consumer public.

Profitability of farm operations depends on seasonal influences, market pricing, labor supplies, and impacts of diseases and pests. Investments in crop production are made often without achieving any profit in some years; one badly-timed frost or hail storm can wipe out a year's investment. Continued escalation of regulatory compliance costs will become the economic tipping point for many farm operations in California's already heavily regulated business climate.

Monterey County Farm Bureau seeks a balanced approach to future irrigated lands programs for our members, one that includes the agricultural community as partners rather than just the regulated community. Only through collaborative efforts can significant achievements be made towards water quality objectives.

Sincerely,

Norman C. Groot
Executive Director