

Letter EA: Michael Griva, Franscioni-Griva Corporation (June 22, 2020)**Letter EA**

From: [Rebecca Costello](#)
To: [AgNOI, WB@Waterboards](#)
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 1:56:34 PM
Attachments: [Comment Letter Franscioni-Griva.pdf](#)

EXTERNAL:

Dear Executive Officer Keeling:

You will find comments on the draft Ag Order from Franscioni-Griva attached below.
Thank you!

Cheers!
Rebecca Costello
Assistant Vineyard Manager
c. 831.444.5446
o. 831.674.5302

--
F&G Vineyard, LLC. / Franscioni-Griva Corp.
41628 Peach Rd
Greenfield, CA 93927
[Franscioni-Griva Corp.](#) | [F&G Vineyard, LLC.](#)





June 22, 2020

Matthew T. Keeling, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 94301

Delivered via electronic mail to AgNOI@waterboards.ca.gov

Dear Executive Officer Keeling:

EA-1

My name is Michael Griva and my family's company is Franscioni-Griva Corporation. Last year we celebrated our 150th year farming on the Central Coast of California. We are diversified vegetable growers on 318 acres of contiguous land that borders the Arroyo Seco River. Our operation has a history of incorporating sustainable practices. We were early adopters of variable frequency drives for our ag wells, frequently use soil moisture monitoring tools, take nitrate samples weekly, and conduct comprehensive soil testing yearly. This clearly shows our track record of caring about our water, land, and people. I know that I must limit my comments to the items that have the potential to harm and even destroy all profitability of our operation, thus making us unsustainable. Sustainability does not only mean caring for the environment and land that a business affects, but also that means that the business is cash flow positive and making a profit.

EA-2

Every year we aim to become more sustainable. However, you cannot imagine my shock as I read the draft of the 4.0 Ag Order. Not only is the order 900 pages long and full of acronyms, but it is also confusing, especially regarding all of the different reporting timelines. We have attended various webinars regarding reporting and are still left confused and feeling like information was left out. If your staff cannot describe all of the different reporting requirements within a 2 hour webinar, these requirements should seriously be reconsidered. Since there are so many different reporting requirements it is highly unlikely that your staff would be able to provide growers with meaningful feedback regarding improving water quality.

EA-3

Not only are the reporting requirements extremely complicated and confusing to just about every person who reads it, it is also expensive and unnecessarily burdensome for farming operations. The economic impact of this order is going to be way beyond the scope of what you have provided in your economic analysis. This analysis does not account fully for certain requirements, including but not limited to fallowing land, hiring professionals, and loss of production. The economic impact up and down the Salinas Valley and Central Coast will be egregious and far beyond anything that you have predicted in your analysis.

FRANSCIONI & GRIVA CORPORATION 831-674-5302
P.O. Box 216, Greenfield, CA 93927



EA-4

Regulatory costs affect competitiveness of the California agriculture industry. This can push crop production out of the state or to other countries, and with it jobs and income for the state and region. Impacts disproportionately fall on disadvantaged or severely disadvantaged communities (DAC/SDAC) because these communities are where people that work the fields, coolers, processing facilities, and equipment often reside. Regulatory costs are cumulative. In addition to the Ag Order, the Central Coast is managing implementation of other regulations. For example, implementation of the Sustainable Groundwater Management Act will result in changes in the availability and cost of groundwater in Central Coast sub-basins. In addition, the study by Hamilton and McCullough (2018) identifies other regulatory compliance costs that are increasing over time and should be appropriately considered in any economic impact analysis of additional regulations specified under the proposed Order. In the past decade, regulatory compliance costs have increased 795% for a typical leafy-greens grower.

EA-5

Central Coast Regional Water Board is proposing an onerous and restrictive regulatory program in a time of great economic uncertainty for the farming community. Lower production values will lead to job losses, impacting communities with higher levels of unemployment and lower tax revenues. Regulatory compliance costs will reduce available funding for capital improvements. Change of land use due to land idling will become a much larger issue for Central Coast Counties.

Thank you for your time and consideration,
 Michael Griva
President, Francioni-Griva Corporation

FRANSCIONI & GRIVA CORPORATION | 831-674-5302
 P.O. Box 216, Greenfield, CA 93927

Response to Comment EA-1

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.3.1.

Response to Comment EA-2

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.10; and 2.1.4.

Response to Comment EA-3

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EA-4

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.1.13.

Response to Comment EA-5

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.1.5; 2.1.10; 2.1.11; and 2.1.4.

Letter EB: Mike Ahumada, Sunview Vineyards of California, Inc. (June 22, 2020)**Letter EB**

From: [Mike Ahumada](#)
To: AgNOI_WB@Waterboards
Subject: Emailing: 4.0 comment letter
Date: Monday, June 22, 2020 11:54:05 AM
Attachments: [4.0 comment letter](#)

EXTERNAL:

Your message is ready to be sent with the following file or link attachments:

4.0 comment letter

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Mike Ahumada
Sunview Vineyards of California, Inc.
31381 Pond Rd. Suite 4
McFarland, CA 93250

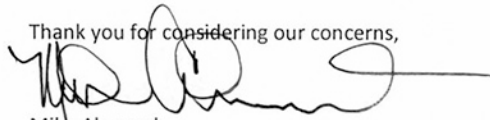
June 22, 2020

Chairman Jean-Pierre Wolff
Central Coast Regional Water Quality Board
895 Aerovista Place, Ste. 101
San Luis, Obispo, CA 93401-7906

Dear Chairman Jean-Pierre Wolff and Members of the Board:

- EB-1 I Our Family owned company farms vineyards in SLO County and in Monterey County. We are very
EB-2 I concerned about the overreach and inherent costs coming from the Draft Ag Order. The Riparian
EB-3 I restrictions go far beyond protection and potentially represent a large and illegal taking of productive
EB-4 I private property. The level of required reporting from vineyards far exceeds any justification
EB-5 I proportional to the levels of irrigation and fertility or crop protection applications that crop requires.
I The economic impacts from this draft Order should be mitigated. This is especially true in the face of
the current economic downturn.
- EB-6 I Please consider extending timelines and including a reasonable process for growers and researchers to
I come up with practical solutions. Include in that process the ability to adapt and adopt new practices
and approaches. Take into consideration the importance of irrigated agriculture to the health and
vitality of the Central Coast economy.
- EB-7 I The current draft Order will greatly challenge the ability of our Company to continue to successfully farm
I in your Region.

Thank you for considering our concerns,



Mike Ahumada
Sunview Vineyards of California Inc.

Response to Comment EB-1

Thank you for your comment.

Response to Comment EB-2

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.1.2.

Response to Comment EB-3

This comment is responded to in Master Response 2.8.8.

Response to Comment EB-4

This comment is summarized and responded to in the following Master Responses: 2.1.5 and 2.1.7.

Response to Comment EB-5

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EB-6

This comment is summarized and responded to in the following Master Responses: 2.1.11; 2.3.3; 2.5.8; and 2.5.2.

Response to Comment EB-7

This comment is summarized and responded to in the following Master Responses: 2.1.11 and 2.3.1.

Letter EC: Mike Sinor, Bassi Vineyard (June 22, 2020)**Letter EC**

From: [Mike Sinor](#)
To: AgNOI.WB@Waterboards
Subject: Input for proposed new ag order
Date: Monday, June 22, 2020 10:44:54 AM

EXTERNAL:

June 22, 2020

Matthew T. Keeling, Executive Officer
 Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 94301

Delivered via electronic mail to AgNOI@waterboards.ca.gov

Dear Executive Officer Keeling:

EC-1

We own and farm the Bassi Vineyard on the corner of 101 and San Luis Bay drive. It is a 112 acre piece of land with 30 acres in wine grapes.

As an organically farmed vineyard in which we make most of the grapes into our own wine we farm for flavor and not yield. In doing that we use as little water as possible.

EC-2

Looking at the Current Draft EIR we would have to hire outside professionals to help us navigate the complex and confusing requirements. This would be another financial burden on our company that is dealing with a down market even before the COVID-19 shut down.

EC-3

I am writing you to ask you to not include vineyards in the proposed new ag order.

Thank you for your consideration,

Thank you,
 Mike Sinor
 805-801-2502

Response to Comment EC-1

Thank you for your comment. The CCWB acknowledges the information provided regarding Bassi Vineyard.

Response to Comment EC-2

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.1.5; 2.1.4; 2.2.1; 2.3.1; and 2.5.2.

Response to Comment EC-3

This comment is summarized and responded to in the following Master Responses: 2.1.5 and 2.1.7.

Letter ED: Mindy Record, Paso de Record Vineyard (June 22, 2020)**Letter ED**

From: [Mindy Martinez](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 2:11:11 PM

EXTERNAL:

June 22nd, 2020

Matthew T. Keeling, Executive Officer
 Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 94301

Delivered via electronic mail to AgNOI@waterboards.ca.gov

Dear Executive Officer Keeling:

ED-1 I manage my family's 100 acre property on Ranchita Canyon Road in the Estrella area of Paso Robles. 75 of those acres are planted to premium wine grapes. At any time, you will find at least one of three generations here, caring for this land. Clean, reliable groundwater is what gives our property value; our number one priority is protecting this precious resource.

ED-2 The current draft priorities for Ag Order 4.0 do not consider operational risk to water quality based on the crop in production. It was obvious to me during the staff outreach webinars that vineyards are an outlier when it comes to nitrogen use, runoff and overall pumping. For example, as an industry, we are well under the 2050 threshold for nitrogen and should be exempt from monitoring and reporting related to groundwater.

ED-3 Many of the new requirements are practices we have put in place years ago. Due to the complexity of Ag Order 4.0, the amount of time and resources it would take to complete the Farm Plan and reporting would necessitate hiring a third party professional, just in order to show the practices we are already doing. This would be a significant financial burden to our operation. Is it possible to use programs such as SIP Certified in lieu?

ED-4 We take sustainability and environmental impact very seriously.
 -We work with many industry organizations to maintain levels of best practices and innovative ideas. We participate in the SIP Certified program.
 -We dedicate ourselves to building our soil organic matter with the hopes of eventually being carbon neutral through regenerative agriculture.
 -Erosion Control - no-till, resident cover crops. We have planted buffer zones around creek perimeters and cover roads with forage mix to ensure zero storm water runoff.
 -Our property surrounds the Pleasant Valley School so we are diligent in practicing the safest pesticide management program to ensure the safety of our family members who live on site, as well as the families that attend the school. Mechanical tillage is our preferred method of weed abatement. When chemical applications are absolutely necessary, we use the softest chemistry possible and pesticides never move off-site.

ED-5

I

I encourage staff to consider modifying this draft to implement alternative compliance for low risk vineyards, recognizing current successful efforts in programs like SIP Certified. Reducing regulatory requirements will incentivize adoption of practices that protect water quality.

Thank you,

Mindy

Mindy Record

Vineyard Manager - Paso de Record Vineyard

mindyarecord@gmail.com

Response to Comment ED-1

Thank you for your comment. This comment is summarized and responded to in Master Response 2.3.1.

Response to Comment ED-2

This comment is summarized and responded to in the following Master Responses: 2.1.7 and 2.3.5.

Response to Comment ED-3

This comment is summarized and responded to in Master Response 2.3.5.

Response to Comment ED-4 through ED-5

This comment is summarized and responded to in Master Response 2.2.2.

Letter EE: Nob Furukawa, Gold Coast Farms, Inc. (June 22, 2020)**Letter EE**

From: [Nob Furukawa](#)
To: AgNOI_WB@Waterboards
Cc: [Clay Frick](#)
Subject: Comments of Draft Ag Order 4.0
Date: Monday, June 22, 2020 10:30:36 AM
Attachments: [Comments of Draft Ag Order 4.0.pdf](#)

EXTERNAL:

Attached are come comments on Draft Ag Order 4.0.

Regards,

Nob Furukawa
Gold Coast Farms, Inc.

Gold Coast Farms, Inc.

P.O. BOX 1023
SANTA MARIA, CALIFORNIA 93456
(805) 928-2727

Comments on Central Coast Regional Water Quality Board's Draft of Ag Order 4.0

Farm Plan Reporting

- EE-1 As the increase in reporting is going to be required, I would like to a more efficient reporting system than the current GeoTracker. Compliance data must be manually entered. There is no upload function from standardized formats or spreadsheets, adding to compliance time reporting.

Irrigation and Nutrient Management for Ground Water Protection

- EE-2 Improving groundwater quality is important to myself and our company but it needs to be accomplished in a balanced manner. The draft recommendations will make it impossible to grow vegetable crops in the Central Coast cropping systems. The results by 2050 or sooner would be one crop per year. It would more than likely be very expensive and food production would be cut drastically. This will in all likelihood make the Central Coast uncompetitive as a food growing region. This will negatively affect the local economy as Agricultural production has a very significant role in our local economy as well as the State of California.

- EE-3 The proposed calculation methods do not take into account all forms of nitrogen removal, volatilized, or otherwise lost, any Grower mitigation of nitrogen loss should all be part of the calculation.

- EE-4 The use of high nitrogen water should be incentivized. Incentives should be built into the reporting calculations.

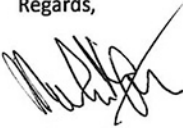
- EE-5 There should be more focus on innovation and providing credits for mitigating nitrogen to the groundwater and not limiting fertilizer applied.

Sediment and Erosion Control

- EE-6 TMDL qualifiers are artificially low and cannot be achieved with current farming practices and the available science. TMDL targets be just that, targets only.
- Storm water cannot accurately be predicted (short term or long term) nor controlled in high flow events, especially on short notice as condition change. The requirement of constructing and maintaining retention ponds will be expensive and will take more land out production further adding to costs and a reduction in food production.
- The monitoring and reporting of stormwater discharge will be difficult to achieve.

Ground Water Monitoring and Reporting

- EE-7 Averaging of irrigation well should apply as in the case of the Eastern San Joaquin Irrigated Lands Program.
- Individual groundwater trend monitoring would be difficult substantiate because of groundwater moment in any aquifer or sub-basin. Trend monitoring would be best done through a Cooperative third party looking at a broader area, water basin or sub-basins, to take into account the movement the groundwater.

- EE-8 | Surface Receiving Water Monitoring and Reporting
- We have been participating with Central Coast Water Quality Preservation, Inc. for the surface water monitoring and reporting and are very satisfied with their performance and would like to see this continue.
- EE-9 | Riparian Area Management and Setbacks
- Riparian setbacks would have a big financial impact on some of our Ranches. As it would reduce the farmable land resulting loss of food production, higher cost of doing business as a result of establishing and maintaining the riparian setback, it would add to the cost of rent on the farmable portion of the Ranch and/or reduction of rent to the Landowner thus reducing his income. On one of our ranches it would result in a loss of 10 acres or about 5% of the land.
- EE-10 | Also, of concern is the Food Safety considerations, as it is habitat of animals of risk. Among other requirements and additional buffer zone may be required resulting in a further reduction in farmable area.
- EE-11 | Final Thoughts
- We fully endorse the proposals in the Ag Association's Comprehensive Submittal, including Redline Revisions to the General Order (Ag Partner Submittal).
- EE-12 | I would like to see a more inclusive approach to resolve the water quality issue, non-ag land users, residential users and municipalities, as we all have to contribute to solve the issue.
- EE-13 | A comment was made by a staff member on one of the Board Webinars, when asked how we are going to get to the nitrogen applied reduction numbers. The comment was that science will get us there, I believe that there needs to be science behind the metrics. Where is the current science at and is there a plan for future research to develop solutions?
- EE-14 | Lastly, every Farming Operation will have to contribute to resolve the issues at hand, but I would like to see Cooperative and/or Third-Party entities involved. Particularly with the monitoring and reporting aspects.
- Thank you for considering my comments on the Draft of Ag Order 4.0.
- Regards,
- 
- Nob Furukawa
- Director of Field Food Safety and Regulatory Compliance
- Gold Coast Farms, Inc.

Response to Comment EE-1

This comment is summarized and responded to in the following Master Responses: 2.1.5 and 2.1.4.

Response to Comment EE-2

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EE-3

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EE-4

This comment is summarized and responded to in Master Response 2.3.9.

Response to Comment EE-5

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EE-6

This comment is summarized and responded to in the following Master Responses: 2.9.6; 2.7.8; 2.7.3; and 2.7.4.

Response to Comment EE-7

This comment is summarized and responded to in the following Master Responses: 2.2.3; 2.3.1; and 2.4.1.

Response to Comment EE-8

This comment is summarized and responded to in the following Master Responses: 2.2.1 and 2.5.7.

Response to Comment EE-9 through EE-10

This comment is responded to in Master Response 2.8.8.

Response to Comment EE-11

This comment is summarized and responded to in Master Response 2.1.14.

Response to Comment EE-12

The comment is noted.

Response to Comment EE-13

This comment is summarized and responded to in the following Master Responses: 2.1.10 and 2.1.11.

Response to Comment EE-14

This comment is summarized and responded to in Master Response 2.2.4.

Letter EF: Phil Tubbs, Evening Star Vineyard (June 22, 2020)**Letter EF**

From: [phillip.tubbs](#)
To: AgNOI_WB@Waterboards
Subject: comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 10:45:38 AM
Attachments: [Ag Order 4.0 comments.docx](#)

EXTERNAL:

Dear Waterboard,

Please Find attached my comments on the Draft Ag Order 4.0

Phil Tubbs
Evening Star Vineyard
913-568-8698
ptubbs@eveningstarvineyard.com

Evening Star Vineyard
 7010 Wilderness Ln
 Paso Robles, CA 93446
 Phil Tubbs-owner

6/22/2020

Matthew T. Kelling, Executive Officer
 Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 94301

Re: Vineyard owner comments on draft Ag Order 4.0

Dear Executive Officer Keeling:

EF-1

I currently own and operate a small vineyard of 30 acres on a 53-acre ranch north of Paso Robles. I have owned the property for seven years and have been redeveloping the vineyard that has been here for approximately 40 years. As part of the redevelopment I have had new wells drilled and all new irrigation systems installed so that the watering is the most up to date and efficient available.

The current cultural practices include.

- Limited nitrogen in the first five years and currently we are not using nitrogen at all. I provide grapes to JLoehr winery and they request we do NOT use nitrogen. So, we would already be well below the required usage by the year 2050.
- Watering is kept at a very minimum to ensure the best quality possible. Again, well below the ac/ft that is being mandated in the Ag Order.
- I have planted permanent row cover crops to minimize erosion.
- Every other year I have added mulch/compost as nutrients to build healthy soils naturally.
- Our vineyard has existing buffer zones to allow equipment passage.
- I belong to IGGPRA and Vineyard Team associations along with attending seminars and lectures on best practices in land care and management to ensure that our ranch will be sustainable and in good health for many, many years.
- Currently in the process of installing moisture monitoring equipment, weather station system to aid in even better watering practices.

EF-2

As you can see, we are already taking water quality seriously that requires a seven day a week effort to manage. The current Draft is too complex and burdensome without providing me any more benefits to water quality that I am not already taking. This is so complex that I have a hard time comprehending let alone trying to manage. I only see this taking more of my limited

EF-2
cont. ↑ time and just another added cost that does not help me. There is no way an average farmer like myself can possibly manage all the requirements put forth in the new Ag Order 4.0. The scope of information would require staff and outside support to complete that would only result in more unnecessary expenses. The Ag Order 4.0 is too broad, and complex and is not tailored to specific farming programs/crops. Wine grape vineyards are at low risk to water quality and should be handled separately regarding monitoring and reporting.

EF-3 ↑ However, I do support a process that would ensure our beautiful State maintains healthy water and monitors best practices to ensure we have forever clean water. I encourage you to consider modifying this draft with alternative compliance for low risk vineyards. Please take into consideration the time and expense it requires us to already farm with best practices.

Sincerely,

Phil Tubbs
Evening Star Vineyard
7010 Wilderness Ln
Paso Robles, CA 93446
ptubbs@eveningstarvineyard.com

Response to Comment EF-1

This comment is summarized and responded to in the following Master Responses: 2.2.2; 2.3.5; and 2.3.1.

Response to Comment EF-2

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.1.5; 2.1.7; 2.1.2; 2.1.4; 2.2.1; and 2.3.1.

Response to Comment EF-3

This comment is summarized and responded to in the following Master Responses: 2.1.14; 2.2.2; 2.3.5; and 2.4.2.

Letter EG: Randy Record, Paso de Record Vineyard (June 22, 2020)**Letter EG**

From: [Randy Record](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 2:01:03 PM

EXTERNAL:

June 22, 2020

Matthew T. Keeling, Executive Officer
 Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 94301

Delivered via electronic mail to AgNOI@waterboards.ca.gov

RE: Comments on Draft Ag Order

Dear Executive Officer Keeling:

- EG-1 I My family owns and operates a 105 acre wine grape vineyard in San Miguel, CA. Our vineyard is SIP Certified, we grow high quality grapes by utilizing low water usage and low nutrient application. Water quality and availability is critical to our operation.
- EG-2 I We are greatly concerned with the Draft AG Order 4.0. The Draft is extremely long and complicated with expensive and burdensome reporting. The economic analysis is insufficient to address grower requirements and obligations.
- EG-3 I Our vineyard is a low risk to water quality impairment, we irrigate with drip systems, plant winter cover crops, and have no tail water or runoff. We utilize small amounts of N per acre and meet the 2050 Nitrogen Loading threshold. We believe that vineyards should be handled separately regarding monitoring and reporting.
- EG-4 I As I mentioned, we are SIP Certified and believe strongly that SIP Certified should be recognized as an Alternative Compliance Pathway and current SIP documentation should be recognized in lieu of farm planning requirements.
- EG-5 I We encourage staff to modify this draft to consider alternative compliance for low risk operations such as vineyards.

Thank you for your consideration.

Randy Record
 Partner, Paso de Record Vineyard
rrecord@att.net

Response to Comment EG-1

Thank you for your comment.

Response to Comment EG-2

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.1.5; and 2.1.4.

Response to Comment EG-3

This comment is summarized and responded to in the following Master Responses: 2.1.7; 2.1.8; 2.2.2; 2.3.5; and 2.3.10.

Response to Comment EG-4

This comment is summarized and responded to in Master Response 2.2.2.

Response to Comment EG-5

This comment is summarized and responded to in the following Master Responses: 2.2.2 and 2.3.5.

Letter EH: Jerry & Suzanne Rava, Chad Rava Vineyards (June 22, 2020)**Letter EH**

From: [Suzie Rava](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 11:12:58 AM
Attachments: [Rava comments on Ag Order 4.0.docx](#)

EXTERNAL:

Good morning,
Attached is our comment letter regarding Ag Order 4.0.
Thank you for the opportunity to respond,
Suzanne Rava

831-385-3285 Office
805-441-4611 Cell

CONFIDENTIALITY NOTICE: The information contained in this message is proprietary and/or confidential. If you are not the intended recipient, please: (i) delete the message and all copies from your files; (ii) do not review, disclose, distribute or use the message in any manner; and (iii) notify the sender immediately. In addition, please be aware that any message addressed to our domain is subject to archiving and review by persons other than the intended recipient. Thank you.

Chad Rava

Chad Rava Vineyards

Jerry & Suzanne Rava

6595 Creston Road

Paso Robles, CA 93446

June 22, 2020

Matthew T. Keeling, Executive Officer

Central Coast Regional Water Quality Control Board

895 Aerovista Place, Suite 101

San Luis Obispo, CA 94301

EH-1

We are deeply concerned about the long-term effects of the proposed Ag Order. Sustainability and water quality are a common goal held both by you and by us, a 3rd generation family, farming a small vineyard in San Luis Obispo County. This is our entire livelihood and the added expense of the proposed compliance will jeopardize our ability to survive as a business.

EH-2

Look at what 3 months of shut down by the Coronavirus has done to a lot of people. There are businesses that did not survive and others who are severely in debt. We, as a society, must make up the difference in the lost tax revenue and debt created. We will pay for all the stimulus money spent and unemployment paid. We must all keep in mind the economic viability

EH-2
cont. ↑ of our area and California as a whole. This new set of rules does not look at the big picture. The economics of the Ag industry is not considered in this new Ag Order. Staff had a single focus in mind when writing these new rules. The board must look at all factors before passing this. This Order is also presenting an unprecedented taking of developed land through the requirements for operational and riparian setbacks that will be very costly for the industry and the area as a whole. Is this step really necessary to ensure the health of California's waterways? Many of the small creeks run only once in every 4 or 5 years only after a large rainstorm. Who is going to pay for this development? We will also all be faced with drought and new SGMA rules sometime in the future. When this happens, it will be a large economic hardship to all of agriculture. Board members have a responsibility to all Californians and agriculture is a very large part of the central coasts as well as all of California's economic health.

EH-3 ↓

EH-4 ↑ There has to be some way to work together to mitigate Nitrates, sediment flowing into rivers and erosion without putting us all out of business. We are NOT one size fits all. Creating one set of rules for all commodities does more harm than good. Vineyards use less water, less fertilizer, less fewer chemicals and as a permanent crop is less disruptive of the landscape. The typical vineyard does not have the economic resources to spend hundreds of hours and thousands of dollars per year to monitor, test and create the many reports and management plans that Ag Order 4.0 requires. We certainly cannot afford the certified advisors and/or third-party monitoring groups to be compliant. Other than all the testing and reporting of our farming methods, this does little to change our farming practices in most cases.

EH-5 ↓

EH-5 ↑ We have always respected our resources and given back to the land, as we plan for our next generation to be able to continue to farm on the Central Coast.

Respectfully submitted,

The Rava Family

Response to Comment EH-1

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.3.1.

Response to Comment EH-2

This comment is summarized and responded to in Master Response 2.9.1

Response to Comment EH-3

This comment is responded to in Master Response 2.8.8.

Response to Comment EH-4

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.6; 2.1.7; and 2.1.11.

Response to Comment EH-5

Thank you for your comment.

Letter EI: Raymond Gularte (June 22, 2020)

Letter EI
6/17/2020

Dear Matthew T. Keeling, Executive Officer,

EI-1 My name is Raymond Gularte, I am a native of the Salinas Valley; I was a farmer for our family business for 40+ years, am a US Navy Korean War Veteran and a landowner. Agriculture has been a part of my whole life- my own father was a farmer and I partnered with my father-in-law who ran a local dairy from the early 1900's until the 1970's where we decided, due to increased regulations and costs, that we would switch our operation to row crops.

Our family farm is still continuing today with the fourth generation joining the family business; that includes my granddaughter. She visits with me weekly and updates me on everything with the operation and our agricultural industry. The amount of regulations and laws farmers are having to manage and comply with is mind boggling, onerous, and beyond my comprehension. I am shocked at what farmers are having to face these days- it is a complete 180 from when I was working.

EI-2 I have recently been informed that the Draft Ag Order 4.0 is increasing in regulations with over 400 pages to read through. Some points of particular concern for me are my property and its land value. Some land is potentially going to be used as a riparian buffer- this will lower the productivity of the land, lower the value of my property and reduce my total land rent. I am 90 years old and am on a fixed income- I need to have daily, paid care and my land rent is my main source of funding. There are many other longtime families with elderly relatives in Monterey County that are also on fixed incomes which are mainly supported by land rent. This taking of land will be quite a direct impact for my life, and for many others. Not only is it a direct impact to me personally but it is a direct impact to our family business and the viability of farming in the Salinas Valley. These riparian setbacks will reduce field production areas, impact crop production yields per acre and cost of production, in turn reducing the financial return per acre. The return on vegetables helps pay for the regulatory costs involved in running a farm. What scientific data or common sense is used to determine how a riparian buffer will improve water quality? Since no water from not just my parcel, but many parcels is being discharged into the riparian habitat, then a buffer is not a "solution for all" to help improve water quality.

EI-3 Regulatory costs affect competitiveness of the California agricultural industry. The increase in costs of regulations for growers will push them to increase their price per acre which will increase the cost of food onto consumers. This will push demand to production of vegetables out of this state or into other countries where it is cheaper to grow, and with that jobs and income for the state and region. Lower production values will lead to job losses; impacting communities with higher levels of unemployment and lower tax revenues which will have a ripple effect on every other facet for an economy and society. I hope our farm can continue for generations to come and not be pushed out of the state due to the overwhelming amount of burdensome regulations. There is a reason the Salinas Valley is the salad bowl of the world- we have the most ideal climate, soils and environment to grow bountiful and nutritious produce to feed people across the nation and the world; and we have been doing it for decades. Do not forget that 2% of Americans feed 100% of the population. That is quite a feat in my book. And every year farmers are feeding more people while using fewer resources- that can continue to happen as long as we encourage young people to work in agriculture. Such regulations as shown in the Draft Ag Order 4.0 are not encouraging.

EI-4 I would highly suggest reconsidering the riparian buffer requirement as well as look to the Grower Shipper Association, Farm Bureau, Resource Conservation District and UC Farm Extension Service recommendations. It is hard to truly understand the full scope and the intricate parts of our supply chain of our industry unless you have worked in it for decades. Our local agricultural organizations are on the forefront of understanding our industry and the balance we can find for Ag Order 4.0 because they have been working with farmers for decades. Understanding, support and compromise are key to the viability of agriculture and the goals of regulatory compliance.

Thank you for the consideration.

Sincerely,


Raymond Gularte

Response to Comment EI-1

This comment is summarized and responded to in Master Response 2.1.4.

Response to Comment EI-2

This comment is responded to in Master Response 2.8.8.

Response to Comment EI-3

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EI-4

This comment is summarized and responded to in the following Master Responses: 2.8.8; 2.1.8; 2.1.10; 2.1.11; and 2.2.3.

Letter EJ: Rebecca Griva, F&G Vineyard, LLC (June 22, 2020)**Letter EJ**

From: [Rebecca Costello](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 1:57:34 PM
Attachments: [Comment Letter F&G.pdf](#)

EXTERNAL:

Dear Executive Officer Keeling:

You will find comments on the draft Ag Order from F&G Vineyard, LLC. attached below. Thank you!

Cheers!
Rebecca Costello
Assistant Vineyard Manager
c. 831.444.5446
o. 831.674.5302
--
F&G Vineyard, LLC. / Franscioni-Griva Corp.
41628 Peach Rd
Greenfield, CA 93927
[Franscioni-Griva Corp.](#) | [F&G Vineyard, LLC.](#)





June 22, 2020

Matthew T. Keeling, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 94301

Delivered via electronic mail to AgNOI@waterboards.ca.gov

Dear Executive Officer Keeling:

EJ-1

My name is Rebecca Griva and my family's company is F&G Vineyard, LLC. We have been operating as a vineyard on the Central Coast of California for over 20 years. We produce wine grapes on 396 acres of contiguous land that borders the Arroyo Seco River. Our operation has a history of incorporating sustainable practices into our daily practices. We were early adopters of variable frequency drives for our ag wells, frequently use soil moisture monitoring tools, keep updated and educate don the latest sustainable technology, and conduct comprehensive soil testing yearly. This clearly shows our track record of caring about our water, land, and people. Especially since our vineyards, which border the Arroyo Seco River, are California Sustainable Winegrowing Alliance certified we are especially committed to protecting surface and water quality. I know that I must limit my comments to the items that have the potential to harm and even destroy all profitability of our operation, thus making us unsustainable. Sustainability does not only mean caring for the environment and land that a business affects, but also that means that the business is cash flow positive and making a profit.

EJ-2

EJ-3

Every year we aim to become more sustainable as a business, but I was when I read the draft of the 4.0 Ag Order. It is an extremely confusing document, especially regarding all of the different reporting timelines. I have attended a number of webinars regarding the reporting requirement and still felt confused and like large aspects of information was left out. If staff cannot describe all of the different reporting requirements within a 2 hour webinar, these requirements should seriously be reconsidered. Since there are so many different reporting requirements it is highly unlikely that your staff would be able to provide growers with meaningful feedback regarding improving water quality.

EJ-4

Not only are the reporting requirements extremely complicated and, the 4.0 Ag Order is also expensive and would be very cumbersome for most farming operations. The economic impact of this order is going to be way beyond the scope of what you have provided in your economic analysis. This analysis does not account fully for certain requirements, including

F&G VINEYARD, LLC., 41628 PEACH RD, GREENFIELD, CA 93927



EJ-4
cont.

but not limited to fallowing land, hiring professionals, and loss of production. The economic impact up and down the Salinas Valley and Central Coast will be egregious and far beyond anything that you have predicted in your analysis. The economic analysis needs to be completed properly in order to get a true idea of the true scope of the economic impact.

EJ-5

The draft also does not consider the risk of certain farming operations, it only accounts for location when developing the phases. We currently farm both vegetable ground and vineyards. Vineyards are not only at a low risk to water quality but use minimal to no nitrogen. Vineyards currently do meet the 2050 nitrogen loading threshold, and therefore should be exempted from the monitoring and reporting for groundwater. Although our vineyards border the Arroyo Seco they are set back with a buffer zone from the water. Also, this buffer zone area is covered in native grasses to prevent erosion. The 2019 harvest year was a very pivotal moment in the wine industry and many farmers were hurt due to an oversupply. Many have pulled out vineyards or are struggling financially and putting the burden of destroying vineyard land and moving end posts would further economically damage them. Not to mention, disturbing the soil in the process of removing vineyard would only serve to decrease water quality. Therefore, including vineyards in all of the reporting and monitoring requirements for this Ag Order would only serve to decrease sustainability, through loss in profits and loss in water quality.

EJ-6

I encourage staff to consider modifying this draft to consider alternative compliance for low risk vineyards and create a framework that incentivizes adoption of practices that protect water quality by reducing the regulatory requirements. I also would request that regulatory and monitoring requirements be simplified and laid out clearly. As it stands this order is much too confusing to be adhered to with accuracy. These changes would reflect the direction from the Board over the last several years, in addition to vineyard stakeholders who are affected by this Order.

Sincerely,
Rebecca Griva
Assistant Vineyard Manager, F&G Vineyard, LLC.

F&G VINEYARD, LLC., 41628 PEACH RD, GREENFIELD, CA 93927

Response to Comment EJ-1

This comment is summarized and responded to in the following Master Responses: 2.1.7; 2.1.8; 2.3.5; and 2.3.1.

Response to Comment EJ-2

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EJ-3

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.10; 2.1.11; 2.1.4; and 2.3.1.

Response to Comment EJ-4

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EJ-5

This comment is summarized and responded to in the following Master Responses: 2.8.8; 2.1.7; and 2.3.5.

Response to Comment EJ-6

This comment is summarized and responded to in the following Master Responses: 2.1.8; 2.1.11; 2.1.14; and 2.2.2.

Letter EK: Robb Howell, San Bernardo Rancho (June 22, 2020)**Letter EK**

From: sanbernardoranch@gmail.com
To: AgNOI_WB@Waterboards
Subject: Comments on DRAFT Ag Order 4.0 - San Bernardo Rancho
Date: Monday, June 22, 2020 10:47:01 PM
Attachments: [LETTER_Draft Ag Order 4.0 Howell Comments SBR_2020-06-22.pdf](#)

EXTERNAL:

Good Afternoon,

Attached please find a commentary letter on the proposed DRAFT Ag Order 4.0.

Thank you,

Robb Howell
HR and Compliance Director

San Bernardo Rancho
PO BOX 82, San Ardo, CA 93450
(831) 809-8320 mobile/sms
sanbernardoranch@gmail.com

San Bernardo Rancho

P.O. Box 82
San Ardo, CA 93450

Mr. Matthew T. Keeling, Executive Officer
895 Aerovista Place, Ste. 101
San Luis Obispo, CA 93401

Submitted Via Email

Re: Comments on Draft Ag Order 4.0

Dear Mr. Keeling,

EK-1 I am writing to you on behalf of San Bernardo Rancho, located in San Ardo, CA, in Monterey County. Our ranch operates approximately 10,000 acres of property including leased irrigated crop land as well as pasture lands. Our property is situated along the Salinas River.

EK-2 While fully understanding and appreciating the fine balance between land use and the protection of water, riparian zones, and wildlife, I believe the Draft Ag Order 4.0 failed to consider the impacts of some of the proposed rule changes from both an economic and environmental standpoint.

EK-3 Of particular concern to our operation are the potential expansion of operational set-backs and the associated requirements for the installation of additional vegetation. Expanding the setback requirements will reduce the productive acreage available for our lessees, thereby reducing our potential for lease incomes and potentially a significant impact on the land value, both of which will also bear tax implications. Additionally, the cost to increase vegetation beyond the requirements in the Riverbed Maintenance Program are burdensome, excessively costly, and may require the introduction of pest control and fertilization measures in order to establish the new vegetation. Finally, the expanded vegetative buffers pose additional risks to food safety in bordering crops.

EK-4 Additionally, it is my belief that Part 2, Section D.15 requiring access roads to be built to California Code of Regulations Title 14, Chapter 4, is not only unnecessary, but is excessive and will add additional costs without providing any measurable benefit.

Thank you for your consideration of these concerns and objections.

Sincerely,



Robb Howell
Director of Human Resources and Compliance
San Bernardo Rancho

Response to Comment EK-1

CCWB acknowledges the commenter's background and interests.

Response to Comment EK-2

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EK-3

This comment is responded to in Master Response 2.8.8.

Response to Comment EK-4

This comment is summarized and responded to in Master Response 2.1.12.

Letter EL: Robert Rodoni (June 22, 2020)**Letter EL**

From: bsprout5@aol.com
To: AgNOI_WB@Waterboards
Subject: Comments on draft 4.0
Date: Monday, June 22, 2020 8:59:39 AM

EXTERNAL:

Dear Matthew T. Keeling,

EL-1 I am writing to you in hopes of a postponed implication of Draft 4.0. Many of the requirements are near impossible to implement with the current state of farming on the Central Coast. I feel the water board should focus more of their attention on the homeless and drug addicts living in our water ways. This causes more harmful damage than anything farming does.

EL-2 1. Sediment control. This is already covered by the county ordinances. The water boards requirement would only be another adversity on top of the counties ordinances and bureaucratic regulations.

EL-3 2. Nitrate. All growing areas and crop areas require different levels of nitrates to grow. With the suggested limits, this would only harm good growers, who already follow good farming practices.

EL-4 3. Riparian areas. By doing riparian set backs on some farms and not others you are setting a value on land with no compensation for farms that have a set back already in place. A better idea would be to give a credit to the farms that already have a setback (i.e. tax credits or requirement credits). This may help growers want to work with researchers to implement setbacks and riparian areas.

EL-5 In conclusion, farming is a generational career and I just hope it will be sustainable to farm for more generations. It can not sustain with the current government regulations past and future.

Kindly,

Robert Rodoni
 3rd generation grower, hoping for a 4th and 5th.

Response to Comment EL-1

This comment is summarized and responded to in the following Master Responses: 2.1.11 and 2.1.2.

Response to Comment EL-2

This comment is summarized and responded to in Master Response 2.7.1.

Response to Comment EL-3

This comment is summarized and responded to in the following Master Responses: 2.3.3 and 2.3.4.

Response to Comment EL-4

This comment is responded to in Master Response 2.8.8.

Response to Comment EL-5

Thank you for your comment.

Letter EM: Robert Silacci (June 22, 2020)**Letter EM**

Dear Matthew T. Keeling, Executive Officer,

EM-1 I am a long time resident of Salinas, landowner and viticulturist. My family has lived here for generations and I am looking forward to my kids sustaining our ranch and maintaining the potential of our land to provide a viable future of food production for our country.

EM-2 It has come to my attention however that my property value and land use will be greatly limited by the scope and constraints of Ag Order 4.0. We have had longstanding tenant farmers who rent our land. Our vineyards have been established for decades, and I have personally done years' worth of work and conservation to help manage the Salinas River and combat invasive species and erosion control along our property. There are many concerns I have with the proposed regulations in Ag Order 4.0 but one of greatest concern is the riparian buffers. This will reduce the viability of our land, its use and create additional management for my tenants and for me in regards to planting and maintaining native vegetation. I can tell you from personal experience that this is not as easy as it sounds. I have replanted native plants in areas of my property to help control soil erosion and increase competition of resources to help eradicate invasive species like Arundo Donax. These plants do not always take to the soil, animals often consume young plants and even with a managed drip irrigation system some plants still die. Establishment of vegetation will add costs and take significant effort along with maintenance and will require irrigation and possibly fertilizers along with pest management to establish. Not to mention the significant conflicts with food safety measures that come with vegetative setbacks adjacent to production fields. I would also highly consider the restrictions of pumping additional groundwater to irrigate a vegetative buffer. Farmers are already going to be impacted on the amount of water used for irrigated lands by SGMA (Sustainable Groundwater Management Act) the additional use of pumping groundwater from our aquifers for a riparian buffer will probably not be feasible or be able to be included in growers' water applications and allocation from SGMA.

EM-3

EM-4 I would also consider the legal implications and overreach the CCRWQCB has in regards to mandating what a private landowner can or cannot do on their own property. Installation of new riparian vegetation as a requirement for water quality is not consistent with CCRWQCB authority related to an Ag Order (waiver) or Waste Discharge Requirements Order (WDR), and should not be mandated. If the East San Joaquin order has set precedent

EM-4
cont.

for the entire state, how does this align with their program? What scientific evidence supports improved water quality with riparian buffers especially if no irrigation tail water is ever discharged from my property into said riparian habitat? I take pride in being a good neighbor to our local water bodies, and so do my tenants. It seems like a very prescriptive approach to sustainability. Not disturbing adjacent habitat is important for all farmers, it should be their own will or want to work with conservation groups or seek help to improve habitat if they so choose to do so or if the landowner so chooses to do so. Every single farm operation and every single property/ranch is different. A "one size fits all" approach is not feasible or viable for practical, economic and legal reasons in regards to these mandates on riparian buffers. Riparian setbacks should be an optional management practice elected by the farm or landlord, and incentivized, in watersheds where these are scientifically reasonable mitigation strategies, not a prescriptive requirement for compliance.

EM-5

I hope that the board and all stakeholders can reach a mutual understanding and feasible, practical way to manage compliance, improve water quality while still understanding the nature, complexity and viability of farming on the Central Coast. I highly recommend working with industry partners such as the Grower Shipper Association, Farm Bureau, local Resource Conservation Districts and the UC Extension Service.
Thank you for your time and consideration.

Sincerely,



Robert Silacci

Response to Comment EM-1

CCWB acknowledges the commenter's background and interests.

Response to Comment EM-2

This comment is summarized and responded to in Master Response 2.4.1.

Response to Comment EM-3 through EM-4

This comment is responded to in Master Response 2.8.8.

Response to Comment EM-5

Thank you for your comment.

Letter EN: Sarah Ragan, Diamond West Farming Company, Inc. (June 22, 2020)**Letter EN**

From: [Marissa Winchester](#)
To: AgNOI_WB@Waterboards
Cc: [Sarah Ragan](#)
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 4:26:42 PM
Attachments: [Comments on Draft Ag Order.pdf](#)

EXTERNAL:

Marissa Winchester
Diamond West Farming Company, Inc.



June 22, 2020

Matthew T. Keeling, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 94301

Delivered via electronic mail to AgNOI@waterboards.ca.gov

Dear Executive Officer Keeling,

We currently farm in Santa Barbara County, San Luis Obispo County, Monterey County and San Benito County totaling approximately 3,600 planted acres. Not only do we farm in these regions but we also live in these regions. Our families rely on water for our farming operations. We currently implement the following farming practices at our ranches that protect water quality –

EN-1

- Erosion control
- Cover cropping
- Pest management
- Low applied nutrients
- Low applied irrigation
- Reducing and minimizing storm water runoff
- Nutrient budgets to determine the most efficient nutrient rates
- Participation in sustainability programs – SIP & California Sustainable Winegrowing Alliance (CSWA)

EN-2

SIP Certified and CSWA Certified should be recognized as an alternative compliance and documentation should be recognized instead of the Farm Planning Requirements. Both require fees and extensive documentation that takes hours to combine and submit to prove many different sustainability practices including water quality. Paying fees and duplicating documents for 20 ranches would be cumbersome and a poor use of time.

EN-3

- As currently written, SIP Certified would not qualify as 3rd party. The framework of the requirements for a 3rd party imply a program that itself monitors water quality, rather than a program that certifies implementation of practices, water/nutrient budgeting, etc.
- If staff intends for a certification program to qualify, these requirements must be edited.
 - SIP Certified operators should have an alternative Annual Compliance process to avoid duplicative documentation.
 - SIP Certified operators are required to implement practices that protect water quality and are verified by an independent inspector.
 - SIP Certification Documentation (Irrigation, Nutrients, Erosion, Pest, Riparian) should be recognized in lieu of Farm Plans.
 - SIP Certified operators, who are required to complete GW testing, should be allowed for this to be recognized without requiring additional analyses.
 - SIP Certified operators, who are required to complete irrigation and nutrient reporting, should be allowed for this to be recognized without additional reporting.

P.O. Box 722 Paso Robles, California 93447 | 805-238-9378

EN-4 I **Current Draft Priorities and Phases Ignores Low Risk Operations**

- EN-5 I
- EN-6 I
- EN-7 I
- EN-8 I
- EN-9 I
- Draft only considers geographic location and not operational risk to water quality. All growers are required to complete all reporting (eventually, and in compressed phasing timelines) regardless of operational risk.
 - Vineyards are a low risk to water quality and should be handled separately regarding monitoring and reporting.
 - Vineyards currently meet the 2050 Nitrogen Loading threshold and should be exempted from monitoring and reporting related to groundwater.
 - Vineyards do not have tail water and maintain winter cover, therefore their monitoring and reporting should reflect that operational risk
 - Vineyards have existing buffer zones to allow for equipment passage and turnaround. Removing vineyards to expand the buffer will disrupt the soils and provide an increased risk to water quality.

EN-10 I I encourage staff to consider modifying this draft to consider alternative compliance for low risk vineyards, leveraging current successful efforts, such as SIP Certified and California Sustainable Winegrowing Alliance (CSWA), and creating a framework that incentivizes adoption of practices that protect water quality by reducing the regulatory requirements. These changes would reflect the direction from the Board over the last several years in addition to vineyard stakeholders who are affected by this Order.

Sincerely,

Sarah Ragan
(805) 238 - 9378
sragan@diamondwestfarming.com

P.O. Box 722 Paso Robles, California 93447 | 805-238-9378

Response to Comment EN-1

This comment is summarized and responded to in Master Response 2.3.1.

Response to Comment EN-2

This comment is summarized and responded to in Master Response 2.2.2.

Response to Comment EN-3

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.2.2; 2.3.5; and 2.4.1.

Response to Comment EN-4

This comment is summarized and responded to in Master Response 2.1.7.

Response to Comment EN-5

This comment is summarized and responded to in the following Master Responses: 2.1.7 and 2.5.4.

Response to Comment EN-6

This comment is summarized and responded to in Master Response 2.1.7.

Response to Comment EN-7

This comment is summarized and responded to in Master Response 2.3.5.

Response to Comment EN-8

This comment is summarized and responded to in Master Response 2.1.7.

Response to Comment EN-9

This comment is responded to in Master Response 2.8.8.

Response to Comment EN-10

This comment is summarized and responded to in Master Response 2.2.2.

Letter EO: Susanne Zechiel, Jackson Family Wines (June 22, 2020)**Letter EO**

From: [Susanne Zechiel](#)
To: [AgNOI_WB@Waterboards](#)
Cc: [Scott Quilty](#); [Bart Haycraft](#)
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 5:10:47 PM
Attachments: [image001.png](#)
[comments_DraftAgOrder_JacksonFamilyWines.pdf](#)

EXTERNAL:

Good afternoon.

Thank you for the opportunity to submit the attached comments on the Draft Ag Order.

Kind regards,
Susanne

SUSANNE ZECHIEL
c: 415.385.4908
Susanne.Zechiel@jfwmail.com
www.JacksonFamilyWines.com





June 22, 2020

Matthew T. Keeling, Executive Officer
 Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 94301
Delivered via electronic mail to AqNOI@waterboards.ca.gov

Re: Comments on draft Agricultural Order 4.0

Dear Executive Officer Keeling,

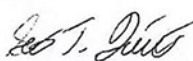
- EO-1 Jackson Family Wines (JFW) owns over 9700 acres in Monterey and Santa Barbara counties. Of this total, approximately 7500 acres are planted in vineyard, irrigated, and enrolled in the current Ag Order. The vineyards are dual certified under (1) Certified California Sustainable Winegrowing (CCSW) administered by the California Sustainable Winegrowing Alliance (CSWA) as well as under (2) Sustainability in Practice (SIP) administered by Central Coast Vineyard Team (CCVT). In addition to these vineyards, JFW owns four winery facilities in Region 3 that receive and process locally grown grapes.
- EO-2 Environmental stewardship is a cornerstone of our business as demonstrated by our decision to have our ranches SIP and CCSW certified. Moreover, JFW employees sit on the Board of Directors for CSWA and CCVT and are also members of the Wine Institute's Environmental Working Group. In these roles JFW employees have been involved in the development of the comment letters submitted by CSWA, Wine Institute, and CCVT. As such, and by reference, JFW agrees and supports the comments sent in by these three organizations.
- EO-3 The SIP and CCSW certification programs have resulted in lasting and sustained improvement in farming practices. Thorough JFW's involvement in CCVT and CSWA, we can confidently say that the BMPS and nutrient management programs promoted by these programs have led to improved water quality throughout the California. Incentivizing involvement in these sustainability programs will encourage more vineyards to achieve the Regional Board's water quality objectives.
- EO-4 JFW vineyards, for example, are highly efficient in our irrigation practices and nutrient management due technologies and BMPS deployed in the field. As a result, JFW ranches in Region 3 have already achieved 50 pounds of applied nitrogen a year, and in some cases much less. Due to irrigation management programs and erosion control practices promoted by the sustainability programs, we have little to no runoff at our properties. The cornerstone of the Sustainability Programs is to share, teach and promote these practices among our neighbors.

Central Coast RWQCB
June 22, 2020
Page 2

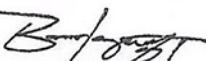
EO-5

Again, JFW supports and affirms the comments provided by CSWA, CCVT, and Wine Institute. If you require additional information, please let me know. You can reach me at 707-566-4924 or Susanne.Zechiel@JFWmail.com. Bart Haycraft can be reached at 805-878-3729 or Bart.Haycraft@JFWmail.com.

Kind regards,



Scott Quilty
JFW Director of Farming
Monterey Region



Bart Haycraft
JFW Vineyard Manager
Santa Barbara Region
&
President, Central Coast Vineyard Team



Susanne Zechiel
JFW Director of Env. Compliance

Response to Comment EO-1

The CCWB acknowledges the commenter's background and interests.

Response to Comment EO-2

This comment is summarized and responded to in Master Response 2.3.1.

Response to Comment EO-3

This comment is summarized and responded to in Master Response 2.2.2.

Response to Comment EO-4

This comment is summarized and responded to in the following Master Responses: 2.2.2 and 2.3.5.

Response to Comment EO-5

Thank you for your comment.

Letter EP: Wayne Gularte, Rincon Farms, Inc. (June 22, 2020)**Letter EP**

6/22/2020

Dear Matthew T. Keeling, Executive Officer,

EP-1 Our operation has continued to work diligently on compliance for our Central Coast Ag Order ever since its inception. There have been numerous workshops, consultations and third party groups that we have been involved in to get a better understanding and do our due diligence to comply. Every year however, the onset of regulations continues to become more difficult, prescriptive and worrisome as to how viable farming will be (and with few results proving regulations are improving water quality). With 400+ pages to read through for Ag Order 4.0, we wanted to share our thoughts about some concerns and alternative suggestions so that we can all be compliant, understanding and work as a cooperative to achieve similar goals. Open discussions, understanding and compromise need to be recognized so that we can achieve *feasible*, *attainable*, and *realistic* goals while understanding the complexities and restraints within each stakeholder group.

Farm Plans and INMP Summary Report

EP-2 Plans for smaller farms will require significant professional expertise to develop and update, at considerable cost and there are not enough professionals to service all farms for these plans. Many small to medium sized farms do not have departments that can divide and conquer tasks or collect data. Small farms lack resources and monetary capital to complete compliance reporting calculations and will require technical assistance.



Irrigation and Nutrient Management for Groundwater Protection


EP-3 There are a number of factors that lead to leaching in the root zone of a plant- soil type, water composition, seed type, irrigation events, fertilizer programs and weather are just a few of these factors. This approach is a "one size fits all" which does not take into account the numerous amounts of differences in each farm and each parcel of land. Improving groundwater quality is important to growers, but must be done in a balanced format; the current draft recommendations would make it quite impossible to grow more than one vegetable crop per year on the Central Coast. More focus should be placed on innovation and providing credits for mitigating nitrogen to groundwater, not limiting fertilizer inputs. It is also important to note that organic fertilizers are different from synthetic fertilizers. Organic growers can only use non-synthetic fertilizers (usually in the form of chicken meal, pellets or fish emulsion). These are 100% organic certified fertilizers which are generally insoluble in water. This insolubility makes them break down much slower and release nutrients more slowly allowing plants to more effectively uptake nutrients and in essence has little to no leaching with the proper management (Hadad and Anderson, Floriculture Research Report 19-04). The biological makeup of these fertilizers more closely match to the organic compounds found naturally in the soil. Thus, the chemical composition and bonds are stronger which makes them hold onto water better and break down much slower.

EP-4 Due to this slower breakdown, this means it's less likely for nitrogen to seep into groundwater. Also, many organic growers use cover crops in the winter or in rotation which helps in taking up any extra nitrogen or nutrients in the soil, sequesters more carbon from the atmosphere and is then used as natural fertilizer and organic material for our next crop. I highly suggest the reconsideration of classification for organic growers into less reporting or consider organic fertilizers similar to compost in regards to the credit of Nitrogen. Any management practice as recommended in the State Healthy Soils Program (which cover cropping, organic fertilizers or soil amendments and composting are) should be encouraged and supported. I support the equation proposal from Grower Shipper Association in which farm level practices are considered and credited to growers. Some additional factors to consider including in regards to nitrogen credit is the amount of nitrogen removed from the field through sequestration in woody materials of permanent or semi-permanent crops, the amount of nitrogen removed from the ranch through a quantifiable treatment method (such as a bioreactor or other means). And the amount of nitrogen removed from the ranch through other methods not previously quantified such as cover cropping, organic fertilizers, gleaning or new technology/ management practices. The current proposed limits on fertilizer applications are not supported by agronomic science. It would be encouraging to see the water board help fund research by agronomists and scientists to see the feasibility of



EP-5

6/22/2020



EP-5  soil composition and plant genetics to determine what levels of fertilizer and the proposed residual or nitrogen
cont.  limits could actually be humanly possible.

EP-6  Another concern to note with the calculations suggested in this section are complete losses or zero N removed in cases of unpredicted and unintentional disruptions to the market. In light of recent events and the unprecedented times due to COVID-19, many growers have had to disc unharvested product into the soil. This is almost considered an act of God, unforeseen or predicted by growers when we planted back in December 2019 or January/February 2020. There was no idea or notion that the market for some of our produce would quite literally disappear, leaving us with no outlet for acres of fresh, ready to harvest product, ultimately causing zero Nitrogen to be removed. Many farmers are struggling to pay workers, have had to cut back costs, and take out extra loans. Some businesses who have workers who are sick have additional regulations and costs to cover wages and medical care. And when this is all said and done we will still have to "pay" for these consequences because we had 0 Nitrogen removed. We encourage staff to consider an "off ramp" or exception if something that is unforeseen disrupts the market. This is not just limited to a pandemic- we saw a similar complete disappearance of markets for produce in 2006 with the E.Coli outbreak in spinach- which did not just leave acres of spinach to be plowed under, but due to a lack of education in consumers, most people thought all lettuce was contaminated leaving many other types of produce left unharvested. This sadly occurred again when we had food borne illness outbreaks in 2017 and 2018. Farmers had to disc product because there was no outlet, leaving us with zero Nitrogen removed. We had no idea a biological hazard would cause our vegetables that were planted months in advance to have no home. Other situations such as an uncontrollable crop disease or other reasons for low demand can cause zero nitrogen removed. It's in these situations (which I foresee to continue but hopefully not often), we need to have some help. No one can predict a pandemic or a biological hazard or even a natural disaster that could completely wipe out a market. We need to have some understanding for scenarios in which we have no control over.

Sediment and Erosion Control

EP-7  The precedential Eastern San Joaquin Irrigated Lands Program only requires Sediment & Erosion Control Plans in areas susceptible to erosion, not all slopes; the same should be applied to the Central Coast region. TMDL qualifiers are artificially low and cannot be achieved with current farming practices and available science; TMDL targets should be just that, targets only. Storm water cannot be predicted nor controlled in high rate flow events, particularly on short notice; this requires construction and maintenance of retention ponds, at great expense. For our operation we will not jeopardize the safety of our workers to calculate the turbidity and flow of storm water. This is a liability and can be extremely dangerous. Most agricultural workers do not work during storms or heavy rains. It is important to consider worker safety and OSHA/CALOSHA standards.  Monitoring and reporting of surface (storm water) discharges will be difficult and dangerous to achieve.

Groundwater monitoring and Reporting

EP-8  The precedential Eastern San Joaquin Irrigated Lands Program only requires an averaging of irrigation wells, not all; the same requirement should apply here. In the past there were allowances for much higher or lower than the MCL for domestic wells; those allowances should remain in place, to require less frequent domestic well sampling in certain situations. Wells with historical data that is compliant to mineral levels should have less frequent sampling. Individual groundwater trend monitoring will be difficult to substantiate trends due to groundwater movement in any aquifer or sub-basin and is quite difficult for individual growers to achieve on their own. Many do not have the capital or technology to do such things on their own. Trend monitoring by a third-party will require data aggregation from multiple wells and cooperation from multiple ranch managers and/or landowners. Ranch-level groundwater discharge monitoring and reporting is punitive and will not provide additional insight into groundwater quality. There are no metrics for determining that a well must be monitored for pesticides and this type of testing is extremely expensive. 

6/22/2020

- Surface receiving water monitoring and reporting**
- EP-9 Central Coast agricultural organizations have been working on a watershed-based third-party group concept for surface water monitoring and reporting; this process should be encouraged by CCRWQCB and implemented in priority watersheds. The process for identifying priority watersheds and associated timelines for compliance should be detailed as part of this Ag Order 4.0.
- Riparian Area Management and Setbacks**
- EP-10 Installation of new riparian vegetation as a requirement for water quality compliance is not consistent with CCRWQCB authority related to an Ag Order (waiver) or Waste Discharge Requirements Order, and should not be mandated. What scientific evidence is being used to prove that if no irrigation tail water is being discharged into a riparian area that water quality can be improved? If no irrigation tail water is being discharged from a grower managed or landowner parcel why should there be a buffer? Where is the start of this buffer? We should not be required to pay to set up our new fences due to this buffer. Riparian setback expansion will reduce field production areas, impacting crop production yields per acre and costs of production (reducing financial return per acre- which this return is how farmers will pay for additional regulatory costs and proposals in this Ag order). Based on a Cal Poly study by two agricultural economics professors, regulatory costs for a Tier 2 grower has increased by 795% in 10 years. So far in this entire Draft Ag Order Proposal I have seen no monetary incentive or monetary credit for any measures done by growers.
- EP-11 For landowners, loss of production areas will reduce rental income and possibly overall land value. These economic impacts were not quantified or discussed in the Draft Environmental Impact Report (DEIR). Establishment of vegetation will add costs and take significant effort, along with maintenance, and will require irrigation and possibly fertilizers along with pest management to establish. Additional water use in these areas also will contradict water allocation and supply based on new restrictions from SGMA (Sustainable Groundwater Management Act). Significant conflicts with food safety measures come with vegetative setbacks adjacent to production fields. More land will need to be buffered from the buffer due to food safety regulations. This also increases the probability of feeding and defecation in production areas. Riparian setbacks should be a management practice elective by farm, and incentivized, in watersheds where these are scientifically reasonable mitigation strategies, not a prescriptive requirement for compliance.
- EP-12 Another consideration in riparian areas is controlling public access and illegal activity. From personal experience, we have seen more damage done to the Salinas River by illegal off-roading than any neighboring farmer. See this article for support of controlled illegal activity by the government agency NRCS (Natural Resources Conservation Service)
<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/releases/?cid=nrcseprd1579239>
- ↓ Here is an excerpt from this article on the next page:

6/22/2020

EP-12
cont.

↑ Impacts of Illegal Off-Road Vehicles and Trash

Other major sources of problems in the Salinas River include illegal off-road vehicles (OHVs) and trash, which include wrecked cars, appliances, tires, paper, oil and other debris. OHVs include motorcycles, quads, trucks, cars and SUVs.

The OHVs tear up the river bed and destroy habitat, impacting the many rare and endangered species that make the River their home. The noise caused by OHVs may also disturb critical bird nesting areas along the river. The RCD staff have witnessed destruction of beaver dams and pollution of the River by OHVs. The OHVs also cause erosion and other impacts in the fragile river system. The worst problems occur within the City of Atascadero and the community of Templeton. The City of Paso Robles has instituted river patrols in the past and the problems with OHVs in that city have reduced, although it continues to be a problem in the southern areas of Paso Robles. OHVs are also destroying parts of the Salinas River in San Miguel. These people are not only destroying the river habitat and polluting the water, they are also potentially violating State and Federal laws that prohibit pollution of rivers and destruction of wetland areas.

In addition, people throw trash and other items into the River, further destroying the habitat and polluting the river. The Cities of Paso Robles and Atascadero as well as the community of Templeton have conducted yearly "Stream Cleanup Days." Persons interested in volunteering for these events

These people that are off-roading in local streams and water ways are causing habitat damage and loss, disruption, litter, pollution, and worker safety hazards. We have personally seen trash that includes needles, lead bullets and shells along with many other questionable debris. Not to mention the channel damage to the river that vehicles cause. See some photo evidence below:



↓ Illegal Shooting at the Salinas River

6/22/2020

EP-12
cont.



Channel Damage at the Salinas River



Habitat disturbance in the Salinas River

6/22/2020

EP-12
cont. ↑ For more footage, please see these links of continued instances and riparian disturbance.

<https://www.youtube.com/watch?v=3b9hypqznUw>

<https://www.youtube.com/watch?v=ceZsLv2nVyo&t=52s>

<https://www.youtube.com/watch?v=LPw0iJg5iRA>

↓ Ask any grower, landowner or resident along the Salinas River, this activity continues to this very day.

EP-13 ↑ In conclusion, we hope you take these options and concerns into consideration to create a more understanding Ag Order with feasible goals in mind for all stakeholders.

Thank you.



Wayne Gularte
Rincon Farms, Inc.

Response to Comment EP-1

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.11; 2.1.2; 2.1.4; 2.3.1; and 2.3.3.

Response to Comment EP-2

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.8; 2.1.10; and 2.1.11.

Response to Comment EP-3 through EP-5

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EP-6

This comment is summarized and responded to in Master Response 2.2.3.

Response to Comment EP-7

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EP-8

This comment is summarized and responded to in Master Response 2.3.3.

Response to Comment EP-9

This comment is summarized and responded to in the following Master Responses: 2.7.5; 2.7.1; 2.7.3; and 2.7.4.

Response to Comment EP-10

This comment is summarized and responded to in the following Master Responses: 2.2.3; 2.3.9; 2.3.1; 2.3.3; 2.4.1; 2.4.2; and 2.4.3.

Response to Comment EP-11

This comment is summarized and responded to in the following Master Responses: 2.5.5 and 2.5.4.

Response to Comment EP-12

This comment is responded to in Master Response 2.8.8.

Response to Comment EP-13

Thank you for your comment.

Letter EQ: Willy Cunha, Sunview Shandon (June 22, 2020)**Letter EQ**

From: [Willy Cunha](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 12:11:00 PM
Attachments: [2020-06-22 Willy Cunha letter to CCWQCB.pdf](#)

EXTERNAL:

Please find attached my comments of the Draft Ag Order 4.0

Willy Cunha
Sunview Shandon
PO Box 360
Shandon, CA 93461

June 22, 2020

Chairman Jean-Pierre Wolff
Central Coast Regional Water Quality Board
895 Aerovista Place, Ste. 101
San Luis, Obispo, CA 93401-7906

Dear Chairman Jean-Pierre Wolff and Members of the Board:

- EQ-1 I am a farmer growing organic grapes over the Paso Robles Groundwater Basin near Shandon California. The Estrella Watershed and the Paso Robles Groundwater Basin, dominated by Wine Grapes, is, for the most part, farmed in a responsible manner that meets the water quality objectives of the current and proposed Ag Orders. The farmers here should continue to report their use but should have a less rigorous compliance pathway under AG Order 4.0 that recognizes our sustainable farming approach. Only when and where data shows an area or an operation is failing to meet reasonable expectations should regulation ramp up compliance. Areas like ours with low impact crops should be recognized and rewarded and not be forced to comply with the level of reporting or the most burdensome portions of the proposed Order. The same is true of low impact crops like wine grapes. We, in this area, as do all Region 3 farmers, need an Ag Order that works with us to help us continue to be successful and to continue to improve in protecting all aspects of the environment. If we are doing a good job we should be rewarded not punished under a new Ag Order.
- EQ-2
- EQ-3 The proposed Order is poorly written, far reaching (reaching far beyond where it should go) and myopically focused with casual disregard to the far reaching consequences that will quickly result if the current Draft Order is implemented as written. Why create expensive unintended consequences that will hurt farmers, economy and the ultimate success of the Order, when cooperative collaborative approaches will produce better water quality improvements more quickly than those in this draft Order? Working with, not against, irrigated agriculture will be more productive. "Ag Association Partners' Comprehensive Submittal, Including Redline Revisions to the General Order (Ag Partner Submittal)" is but one example.
- EQ-4 You have a talented Staff. Their laser like focus on limited numeric outcomes has blinded them to the complexity of the system and to how their proposed Regulations need to be implemented by human beings. It is up to your Board to give them the practical direction needed to be successful in the Board's mission of protecting water quality with an Order that is practical, doable and protects the economy while it protects the water. All of us are advocates of protecting and improving water quality here in Region 3 and across the Country. How we chose to accomplish that goal can follow many different paths. It is understood that your Board needs to respond in this Order to the recent Court Orders and to operate within the precedential E. San Joaquin Order. We are all good citizens and want to follow the law and to operate within Regulations. We need you to create good Regulations that work for all of us, protect our aquatic systems and allows for success in our agricultural businesses.
- EQ-5 Your Staff should be directed to work more directly with the Farmers and UC Researchers to come up with the Best Management Practices and more importantly the fertilizers and chemical inputs that do not contain salts. If growers do not need to flush salts from the soil, applied nutrients can remain in the root zone for future crops and not flushed down into the groundwater or out into our surface waters. Less inputs would be needed and organic matter and other products could be built into planting beds to hold those nutrients in the root zone.

- EQ-6 Use your power to “force”, encourage and to assist the Ag Community, UC Researchers and the Chemical Companies to spend time, effort and money on developing those products and practices. Do not have us waste millions and millions of dollars in bureaucratic compliance and paperwork that does not advance our understanding. Yes, have us collect the data we need to expand understanding of how these complex systems operate and to ensure improvements. Staff needs to spend more time out of your office and out in the field working with Ag.
- EQ-7 Protecting riparian habitats is important and required by existing law. The proposed rule has some elements that are glaringly obvious overreach that will not withstand legal challenge. Clean up the language in the Order or cost tax payers and farmers Millions of Dollars for nothing useful. We will have to pay lawyers, expert witnesses and your Staff to go to Court. What a waste! You have a responsibility to help direct that money and energy to go towards real practical solutions.
- EQ-8 To gain time for your Staff to be successful, set reasonable limits on Nitrogen and Chemicals of concern that meet the Court Orders and follow the precedential East San Joaquin Order coupled with responsible time lines that give the farmers and Staff enough time, working cooperatively together, to be attain your goals. The Central Valley’s approach is more reasonable and will be more successful than what is currently proposed in this draft Order. We do not have all the answers. Science does not have sufficient data. We do not even know all the questions we should be asking. We need to work together collaboratively to gain the data, insights and understandings that will lead to greater success in the future. We can do that while simultaneously creating groundwater improvements as we go. The current draft is wanting. Please create something positive and collaborative with a real chance for success.
- EQ-9 In the face of the Covid Economic downturn local economies and the State cannot afford the negative economic impact of the current proposed Order. Billions of Dollars lost every year!!! Tax revenue is falling rapidly, this Order will make it worse. The State needs to make draconian cuts. Your Order does not have to make things worse! It is up to you. Your actions are going to have real far ranging consequences. You need to be aware and responsible. Take off your blinders and look around. Follow the law. Be prudent and responsible. Your Order should create cooperative efforts that successfully protects water quality and simultaneously protects the very important contributions from irrigated agriculture. You may think this is what you have been doing over the last 10 years, but it has not happened. Blame Ag or blame the CCWQCB, who cares. Let’s work together to create success.

Thank you for considering my concerns and my ideas!

Sincerely,



Willy Cunha

Response to Comment EQ-1

This comment is summarized and responded to in the following Master Responses: 2.1.6 and 2.1.2.

Response to Comment EQ-2

This comment is summarized and responded to in the following Master Responses: 2.1.7 and 2.2.2.

Response to Comment EQ-3

This comment is summarized and responded to in Master Response 2.1.2.

Response to Comment EQ-4

This comment is summarized and responded to in Master Response 2.1.14.

Response to Comment EQ-5

This comment is summarized and responded to in Master Response 2.1.4.

Response to Comment EQ-6

This comment is summarized and responded to in the following Master Responses: 2.1.8 and 2.5.8.

Response to Comment EQ-7

This comment is summarized and responded to in Master Response 2.1.11.

Response to Comment EQ-8

This comment is responded to in Master Response 2.8.8.

Response to Comment EQ-9

This comment is summarized and responded to in the following Master Responses: 2.9.3; 2.1.2; 2.3.10; 2.3.3; 2.5.2; 2.6.6; and 2.7.8.

Letter ER: Willy Cunha, Sunview Shandon (June 22, 2020)**Letter ER**

From: [Willy Cunha](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 5:39:24 PM
Attachments: [2020-06-22 Willy Cunha sediment letter to CCWQCB.pdf](#)

EXTERNAL:

Please find attached my comments on sediment and erosion in Draft Ag Order 4.0

Willy Cunha
Sunview Shandon
PO Box 360
Shandon, CA 93461

June 22, 2020

Chairman Jean-Pierre Wolff
Central Coast Regional Water Quality Board
895 Aerovista Place, Ste. 101
San Luis, Obispo, CA 93401-7906

Dear Chairman Jean-Pierre Wolff and Members of the Board:

ER-1 When finalizing the Order I hope you and your Board will take a small amount of time to consider natural processes and the importance of erosion and sedimentation in building healthy soils. Much of our region rests on sedimentary rocks with 100's to 1'000s of feet of relatively recent alluvium supporting the landscapes and farms that dominate the Central Coast. To make a rule that assumes that those processes are going to stop in the face of misguided Regulation is not only unreasonable it is unattainable. It is down right foolish (I contemplated stronger words). Your rule should clearly define what is the amount of sediment that would be over and above the normal amount from our annual rains and periodic floods. As well to accommodate the 100 year flood we seem to have periodically when not suffering record breaking droughts.

ER-2 While Father Junipero did not note the amount of soil he saw in the Central Coast Rivers, Lewis and Clark did describe the brown rivers on both sides of the great divide. No farmers, we could blame the buffalo and the Native Americans for mismanagement. Articles from the 1800's in California describe a Salinas River we would all recognize today.

ER-3 Please apply a modicum of common sense and use the available scientific data that describe these natural systems. State Parks wanted to stabilize the dunes. Foolish. Once stabilized we build Cities on them and install septic systems.

I'm counting on you to do better!

Thank you for considering my concerns and my ideas!

Sincerely,



Willy Cunha

Response to Comment ER-1

This comment is summarized and responded to in Master Response 2.7.1.

Response to Comment ER-2

The comment is noted.

Response to Comment ER-3

The comment is noted.

Letter ES: Magaly Santos, Greenaction for Health and Environmental Justice (June 22, 2020)**Letter ES**

From: [Jessica Jandura](#)
To: [AgNOI_WB@Waterboards](#)
Cc: [Paul Kneitz](#); [Bradley Angel](#); [santos100703@gmail.com](#); [Karen Crespo Triveno](#); [agustin@greenaction.org](#)
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 8:16:20 PM
Attachments: [Greenaction Comment on Draft Agricultural Order 4.0.pdf](#)

EXTERNAL:

To Whom It May Concern:

Please allow this email and attachment to serve as submission of Greenaction for Health and Environmental Justice's Comments on the Central Coast Regional Water Quality Control Board's Draft Agricultural Order 4.0. Thank you.

Best,
Jessica B. Jandura, J.D., M.A.

WARNING: This E-mail, and any attachments, are covered by the Electronic Communications Privacy Act, 18 U.S.C. §2510-2521. This email may contain confidential and legally privileged information. The contents of this e-mail, and any attachments, are intended solely for the use of the person or entity to whom the e-mail was addressed. This email may also contain information that may be protected by the attorney-client privilege, work-product doctrine, or other privileges, and may be restricted from disclosure by applicable Federal and State laws. If you are not the intended recipient of this email you are advised that any dissemination, distribution, or use of the contents of this message is strictly prohibited. If you received this e-mail message in error, please contact the sender by reply e-mail or phone. Please also permanently delete all copies of the original e-mail and any attachments.



June 22, 2020

Greenaction for Health and Environmental Justice
315 Sutter St, 2nd Floor
San Francisco, CA 94108

Mr. Jean-Pierre Wolff, Chair
Mr. Matthew T. Keeling, Executive Officer
Mr. Chris Rose, Environmental Program Manager
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Via email: AgNOI@waterboards.ca.gov

Re: Comments on Draft Agricultural Order 4.0

Dear Mr. Wolff, Mr. Keeling, Mr. Rose, Board Members, and Central Coast Regional Water Quality Control Board Staff:

ES-1

On behalf of our members and constituents in Gonzales and the Salinas Valley, Greenaction for Health and Environmental Justice (“Greenaction”) appreciates the opportunity to provide the Central Coast Regional Water Quality Control Board (“Water Board”) with Comments on the Draft Agricultural Order 4.0 (“Agricultural Order”). As detailed below, Greenaction supports the Water Board’s efforts to reduce agricultural pollution and improve water quality in the Central Coast region, particularly as these regulations will minimize pesticide exposure for residential communities and schools located near agricultural fields in Monterey County. The Agricultural Order has significant potential to improve water quality in the Central Coast region by specifying measurable discharge and application limits along with setback requirements, including enforceable time schedules for compliance, and enhancing rules for monitoring and reporting. The proposed regulatory requirements will help to prevent pesticide over-application and drift, taking a necessary step to protect the surrounding low-income, predominantly Latino communities from negative health impacts.

ES-2

Greenaction is a multiracial grassroots and environmental justice organization formed in 1997 to represent low-income and working class urban, rural, and Indigenous communities on the frontlines of pollution and injustice, including before administrative agencies, and in the courts. To fight environmental racism and to build a healthy future for all, Greenaction supports local community education, organizing, and advocacy, challenging polluters and regulators to change industry practices and laws. Greenaction has worked with tribal nations and communities across Arizona, California, Colorado, Hawai’i, and Utah. Over the last decade,

Greenaction for Health and Environmental Justice
June 22, 2020

- ES-2
cont. ↑ Greenaction has organized campaigns in the Salinas Valley, mobilizing the farmworker community in Gonzales, California and establishing the Salinas Valley Youth Environmental Justice Leadership Academy. The youth leadership program creates opportunities for youth across the Central Coast region to gain the skills, knowledge, and support necessary to advocate for cleaner water for their communities. Examples of the youth's work include conducting surveys and distributing pesticide drift factsheets to community members.¹
- ES-3 ↓ As more than a quarter million California residents are being served by water systems with degraded groundwater quality,² Greenaction calls for urgent and ambitious regulatory action in pesticide management and supports the Water Board's efforts to implement and enforce a comprehensive regulatory framework for Central Coast agriculture. These Comments (1) outline the need for swift action in pesticide and nutrient management to help protect vulnerable residents from health hazards; (2) recognize the positive steps that the Water Board has taken to improve water quality and to fulfill agency obligations under state and federal law; and (3) implore the Water Board to collaborate with the Department of Pesticide Regulation ("DPR") and the Salinas Valley community to help prevent the use of harmful pesticides which threaten access to safe water for everyday uses. These comments close with the personal experience of residents in the Central Coast region, as seen through the eyes of a youth organizer with Greenaction's Salinas Valley Youth Environmental Justice Leadership Academy.
- ES-4 ↓ **I. The Water Board Must Address and Regulate Pesticide Over-Application, Pollution, and Drift**
- Agricultural runoff is one of the largest sources of water pollution in the United States³ and is the primary source of water pollution in California.⁴ Pollution from agricultural runoff threatens safe drinking water supplies for hundreds of thousands of residents in rural communities in the Central Coast region and across the state.⁵ Not only does pollution from agricultural runoff result in toxic algae blooms and environmental dead zones, but nitrate contamination of untreated wells is linked to serious health impacts including various cancers and birth defects.⁶ Although California agriculture is a "multibillion dollar industry that produces more than half of the nation's fruits, nuts, and vegetables," low-income and predominantly Latino workers that sustain the state's agricultural industry are disproportionately

¹ Greenaction, *Connecting Salinas Valley Youth with Cal EPA DPR and Monterey County Agricultural Commissioner* (February 17, 2020), available at <http://greenaction.org/2020/02/17/connecting-salinas-valley-youth-with-cal-epa-dpr-and-monterey-county-agricultural-commissioner/>.

² Helen Kang & Deborah Sivas, *Protection of Drinking Water and Environmental Quality Demands Strong Action*, Legal Planet (May 20, 2020).

³ Kang & Sivas, *supra* note 2.

⁴ Isaac Cheng & Alicia Thesing, *California regulation of agricultural runoff*, Trends: ABA Section of Environment, Energy, and Resources Newsletter, 49(2), 15-17 (2017).

⁵ *Ibid.* See Jose A. Del Real, *They Grow the Nation's Food, but They Can't Drink the Water*, The New York Times (May 21, 2019); available at <https://www.nytimes.com/2019/05/21/us/california-central-valley-tainted-water.html/>

⁶ *Ibid.*

Greenaction for Health and Environmental Justice
June 22, 2020

ES-4 ↑ exposed to unsafe water and resulting health consequences, relying on bottled water for drinking
cont. ↑ and cooking when communities can afford it.⁷

ES-5 With agriculture as the primary source of California's water pollution, it is not a surprise that California leads the United States in pesticide use, according to Californians for Pesticide Reform ("CPR").⁸ Nearly a quarter of the pesticide use reported in California in 2015 met "Bad Actor" criteria, suggesting a risk of "acute poisoning, cancer, birth defects, sterility, neurotoxicity, damage to the developing child, and/or contamination of California groundwater."⁹ Too often, pesticides and fertilizers are needlessly over-applied on farmed land, leaving the excess to run off into surface water and groundwater.¹⁰ These harmful pesticides are further carried and distributed across the state by winds, surface water, and groundwater, risking contamination of additional water supplies in rural areas across the Central Coast.¹¹ As such, low-income communities already at risk of health impacts from contaminated water supplies are subjected to an increased likelihood of unsafe exposure to pesticides by drift and runoff pollution.

ES-6 California's Porter-Cologne Water Quality Control Act¹² ("Porter-Cologne Act") clearly requires regulation of agricultural runoff, even predating the federal Clean Water Act,¹³ as it constitutes Non-Point Source ("NPS") pollution. To implement these mandates, the State's Regional Water Quality Control Boards "have primary responsibility for ensuring that appropriate NPS control implementation programs are in place."¹⁴ Despite these clearly defined legal obligations, prior agricultural orders written by the State and Regional Water Boards have not effectively regulated contamination from pesticides and nutrients.¹⁵ For over fifty years, agricultural operations in the Central Coast region have been allowed to apply and discharge pesticides and nutrients without measurable limits, effective milestones for water quality improvement, or enforceable consequences.¹⁶ Regulatory requirements for irrigated lands across the state are too often made ineffective by the efforts of agricultural industry groups who ask the Water Board to rely on Dischargers' voluntary measures and anonymized data.¹⁷ In light of a recent appellate decision striking down the previous Central Coast regulation for its lack of standards and milestones,¹⁸ the actual and enforceable limits and timelines specified in the new

⁷ *Ibid.*

⁸ Kegley, Katten, & Moses, "Secondhand Pesticides: Airborne Pesticide Drift in California," Report by CPR (2003).

⁹ CPR, "California Pesticide Use," available at <https://www.pesticidereform.org/ca-pesticide-use/>

¹⁰ Kang & Sivas, *supra* note 2. See also Steve Shimek, *California can lead the world to a more sustainable agriculture industry*, CalMatters (June 19, 2020).

¹¹ CPR, *supra* note 9.

¹² California Water Code Section 13000 et seq.

¹³ 33 U.S.C. Section 1251 et seq.

¹⁴ State Water Resources Control Board, *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, page 8 (May 20, 2004).

¹⁵ Kang & Sivas, *supra* note 2.

¹⁶ *Ibid.*

¹⁷ *Ibid.*

¹⁸ *Monterey Coastkeeper v. State Water Resources Control Board*, 28 Cal. App. 5th 342 (2018).

Greenaction for Health and Environmental Justice
June 22, 2020

- ES-6 cont. ↑ Agricultural Order are both required by law and offer significant potential to improve water quality and community health in the region.
- ES-7 | **II. Greenaction Supports the Water Board's Efforts to Improve Water Quality and to Regulate Agricultural Operations in the Central Coast Region**
- Given the immediate need for the Water Board to address over-application and discharge of pesticides and nutrients which contaminate community water supplies, Greenaction applauds the Water Board for proposing regulatory requirements in the Agricultural Order intended to actually improve water quality and to protect the health of local residents. For the first time, the Water Board has proposed regulatory requirements which specify numeric limits and quantifiable requirements for pesticide and nutrient application and discharge. Numeric limits would be associated with actionable time schedules for Dischargers' compliance, which are tied to incentives for compliance and consequences for non-compliance.
- ES-8 | The Agricultural Order also expands previous regulations by adopting a framework for initial and follow-up monitoring, reporting, and evaluation of trends in surface water quality and toxicity. This process ties results to specific management practices implemented by Dischargers in order to assess the success or failure of various operations. Additionally, the Agricultural Order includes new setback requirements to protect riparian areas, and in turn, to help recycle and remove nitrates and nutrients from surface water and groundwater. Generally, these new specifications indicate that the Water Board's Agricultural Order can improve water quality in a more comprehensive, timely, and enforceable manner than previous requirements.
- ES-9 | **III. Greenaction Recommends Collaboration With DPR and the Community**
- As the Water Board continues to develop and improve regulatory requirements for agricultural discharges, Greenaction encourages the agency to ensure that appropriate limits for pesticide application and discharge are included in the final Agricultural Order and subsequently enforced. Similarly, the Central Coast region's proposed milestones, consequences and incentives, and programs for monitoring and reporting should be preserved, even under pressure from industry groups. The voluntary and incentive-based approach favored by industry groups delays compliance indefinitely and simply put, is not acceptable. The Water Board must adopt an appropriate regulatory approach to pesticide management that ensures that Dischargers will come into compliance with numeric limits by implementing new or improved management practices in a timely manner.
- ES-10 ↓ In other words, the Water Board must be able to determine that its nonpoint source pollution control program has a high likelihood of attaining water quality objectives within the established time frame.¹⁹ The Water Board must ensure that its regulatory framework is more

¹⁹ State Water Resources Control Board, *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, pages 11-12 (May 20, 2004).

Greenaction for Health and Environmental Justice
June 22, 2020

ES-10
cont.

than iterative and that it contains specific time schedules and quantifiable milestones.²⁰ In short, it is the Water Board's obligation to ensure that its proposed agricultural regulations and standards can support improving water quality because the implementation of management practices alone "may never be a substitute for meeting water quality requirements."²¹

ES-11

Greenaction encourages the Water Board to embrace its mandate to preserve and protect water quality from pollution by pesticides rather than to delegate its essential water quality authority to DPR. While supporting stronger restrictions and enforcement of agricultural runoff from pesticides, Greenaction urges our government agencies to move rapidly to dramatically reduce pesticide use. The Water Board should work with DPR when appropriate in order to prevent the use of harmful pesticides on irrigated lands in the Central Coast region, which in turn contaminates local groundwater supplies through runoff pollution and drift.

Conclusion

ES-12

For the reasons explained above, Greenaction supports the Water Board's efforts to improve water quality and to protect community health with the proposed Agricultural Order. The Water Board must specify numeric limits for pesticide and nutrient application and discharge in conjunction with adopting an enforcement strategy containing actionable time schedules, effective monitoring and reporting programs, as well as incentives for compliance and consequences for non-compliance. Greenaction encourages the Water Board to continue working with the public to strengthen the regulatory requirements for agricultural discharges in the Central Coast region. Efforts made by state and regional regulators in this federal political climate are increasingly important and require the appropriate urgency and ambition to address ongoing pollution. The Water Board and the state of California can lead the way in the United States and in the world by implementing and enforcing actual and effective regulations of agricultural discharges and runoff pollution. The Water Board can use this opportunity to help to protect vulnerable, low-income, and predominantly Latino communities in rural areas from ongoing health hazards related to pesticide drift and contamination of groundwater supplies.

Thank you for this opportunity to submit Comments on the proposed Agricultural Order.

Respectfully submitted by,

Bradley Angel, Greenaction Executive Director
Salinas Valley Youth Environmental Justice Leadership Academy
Paul Kneitz and Jessica Jandura, Greenaction Volunteers

²⁰ *Monterey Coastkeeper*, *supra* note 17, at 370.

²¹ *Ibid.* at 369.

Greenaction for Health and Environmental Justice
June 22, 2020

June 22, 2020

Mr. Jean-Pierre Wolff, Chair
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Via email: AgNOI@waterboards.ca.gov

Re: Comments on Draft Agricultural Order 4.0

Dear Chair Wolff and the Central Coast Regional Water Quality Control Board:

ES-13 My name is Magaly Santos; I am an active member of Greenaction for Health and Environmental Justice's Youth Leadership Academy in the Salinas Valley for three years and their youth organizer for two years. I am an upcoming high school senior living here in the Salinas Valley, in the city of Gonzales. Coincidentally enough, I live in a camp right outside of my town surrounded completely by agricultural operations. I have lived here for about 14 years. Even by the start of my sophomore year, I had no idea that pesticides were an issue in my agricultural community. As I furthered my knowledge of pesticides, such as what pesticide drift is, what pesticide exposure can cause, and most importantly, which regulations are placed for the safety of both the environment and humans, I came to realize that much of my own community had no idea what they were facing daily.

ES-14 We are a majority Spanish-speaking community that was deprived of any connection with our local farm owners to understand the pesticides that we were being exposed to. Unfortunately, our community still struggles with this disconnection to this day. Aside from my knowledge on the pesticide exposure and language barrier that cause great disconnection, I know that pesticides can not only cause harm to people, but to our environment. I have experienced first hand exposure of pesticide drift from the fields surrounding where I live, but I have also seen what pesticide contamination in our water systems can cause to our environment in general. Multiple times over the years, different out of town resident sites - like where I live - have been known to suffer from water contamination due to pesticide pollution in their water supply. I do agree that initiative must be taken; a call to action that will not only do good to our environment but also lessens the risk of contamination in our waterways to protect our health.

ES-15 Thank you for allowing comments to be submitted. It is for a great and beneficial change in our communities.

Magaly Santos, Greenaction Youth Organizer

Response to Comment ES-1

This comment is summarized and responded to in the following Master Responses: 2.8.8; 2.1.1; 2.3.2; 2.5.1; and 2.6.5.

Response to Comment ES-2

The CCWB acknowledges the commenter's background and interests.

Response to Comment ES-3

This comment is summarized and responded to in Master Response 2.6.5.

Response to Comment ES-4 through ES-6

This comment is summarized and responded to in Master Response 2.6.1.

Response to Comment ES-7

This comment is summarized and responded to in the following Master Responses: 2.5.1 and 2.6.1.

Response to Comment ES-8

This comment is summarized and responded to in the following Master Responses: 2.5.1 and 2.5.11.

Response to Comment ES-9

This comment is summarized and responded to in the following Master Responses: 2.8.8 and 2.6.1.

Response to Comment ES-10

This comment is summarized and responded to in Master Response 2.5.8.

Response to Comment ES-11

This comment is summarized and responded to in Master Response 2.6.2.

Response to Comment ES-12

This comment is summarized and responded to in Master Response 2.1.1.

Response to Comment ES-13

Thank you for your comment.

Response to Comment ES-14

Thank you for your comment.

Response to Comment ES-15

Thank you for your comment.

Letter ET: Paul Poister, Nutrien Ag Solutions (June 22, 2020)**Letter ET**

From: [Paul Poister](#)
To: AgNOI_WB@Waterboards
Subject: Comments of Draft Ag Order 4.0
Date: Monday, June 22, 2020 6:29:17 PM
Attachments: [Nutrien Ag Order 4.0.pdf](#)

EXTERNAL:

Thank you for your consideration of the attached comments on Ag Order 4.0.

Paul Poister
Manager, Government and Industry Affairs
Nutrien
Cell: (720) 289-6454
Paul.Poister@nutrien.com

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June 22, 2020

Mr. Matthew T. Keeling
Executive Officer
Central Coast Regional Water Quality
Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401-7906

Dear Mr. Keeling:

ET-1

On behalf of Nutrien Ag Solutions we commend the board and staff of the Central Coast Water Board for your work on the Agricultural Order for Discharges to Irrigated Lands (Ag Order 4.0). We appreciate the many opportunities for public input and the extraordinary measures taken during this process amid the COVID-19 crisis.

ET-2

California agriculture leads the nation in production and exports and includes more than 400 commodities. Over one-third of the country's vegetables and two-thirds of the country's fruits and nuts are grown in California. The Central Coast is a critical part of the food supply chain of the state, the nation, and the world. Nutrien, and its predecessor companies Crop Production Services and Western Farm Service, have been trusted partners to the region's farmers and ranchers for generations.

In California Nutrien operates 50 farm centers with more than 2,100 employees throughout the state and maintains a regional corporate office in Fresno. Particularly along the Central Coast we strive to improve the communities in which we operate through safety, education, and sustainable business practices. We partner with California Ag in the Classroom, Future Farmers of America, and The Nature Conservancy on a host of programs. We lead the ResponsibleAg program to strengthen industry regulatory compliance. And, we continue to work to increase food production while conserving and protecting water supplies.

ET-3

We share the board's commitment to protecting vital water resources and balancing environmental stewardship with productive ranch operations. To maintain that balance, we support the Ag Association Partners comprehensive submittal, including redline revisions to the General Order the board has received during the public comment period. More focus must be placed on innovation and providing credits for mitigating nitrogen to groundwater, not limiting fertilizer inputs. As example, the company's branch in Salinas is utilizing UAVs along with precision application technology to apply crop inputs more efficiently. The result has reduced run-off and helped implement cutting-edge regenerative farming practices.

ET-4

The Board is sure to receive myriad comments on the potential and extensive economic impacts of the order. There have been some estimates of costs that will drive changes in the physical farming

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nutrien.com

- ET-4
cont. ↑ environment. Additional cost estimates should be included in several key areas including nitrogen discharge requirements, compliance with surface water discharge limits, and riparian setback areas, among others.
- ET-5 ↑ As an ag retailer with customers and employees throughout the Central Coast region Nutrien is particularly concerned about the economic impacts to growers, the food supply chain and our communities. Limiting production on ranches that employ thousands of farm workers should be examined closely especially given the extraordinary challenges presented by the COVID-19 crisis. Impacts disproportionately fall on disadvantaged or severely disadvantaged communities (DAC/SDAC) because these communities are where people that work the fields, coolers, processing facilities, and equipment often reside.
- ET-6 ↑ Thank you for the opportunity to participate in the development of Ag Order 4.0. We commend the thoughtful and in-depth submittal from the Ag Association Partners, and look forward to continued partnership with the Central Coast Water Board on this significant rulemaking.

Sincerely,



Paul Poister

Manager, Government and Industry Affairs

Response to Comment ET-1

Thank you for your comment.

Response to Comment ET-2

The CCWB acknowledges the commenter's background and interests.

Response to Comment ET-3

This comment is summarized and responded to in Master Response 2.1.14.

Response to Comment ET-4

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment ET-5

This comment is summarized and responded to in Master Response 2.9.3.

Response to Comment ET-6

Thank you for your comment.

Letter EU: Steve Petrie, Yara North America Inc. (June 22, 2020)**Letter EU**

From: [Steve Petrie](#)
 To: [Adm@CCWQB.org](#)
 Subject: Comments on Draft Ag Order 4.0
 Date: Monday, June 22, 2020 12:04:11 PM
 Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

EXTERNAL :

Dear Mr. Keeling:

EU-1

The purpose of this letter is to provide comments to the Central Coast Water Quality Control Board (CCWQCB) regarding Ag Order 4.0. I have been actively involved in fertilizer research and Extension for more than 40 years as a Research and Extension Specialist at the University of Idaho, an agronomist and manager of agronomic services in private industry, Professor and Director of the Columbia Basin Agricultural Research Center of Oregon State University, and I am currently the Director of Agronomic Services for Yara North America. In these positions, I conducted and managed laboratory and field research on a wide range of crops in the western US and I have worked closely growers, other professional agronomists, university and USDA scientists, and federal, state, and local regulatory agencies.

EU-2

I have carefully reviewed the proposed Ag Order 4.0 and there are several comments I would like to offer that will increase the agronomic soundness and overall effectiveness of the Order.

EU-3

First, no one can dispute that groundwater is a precious resource that provides the foundation of a sustainable food production system. The need to protect and improve groundwater quality is clear and all the professional agronomists with whom I work support the goal of maintaining and improving groundwater quality.

EU-4

Second, the appropriate use of nitrogen (N) fertilizer is also an essential component of a highly productive cropping system that provide consumers with top quality vegetables and fruits. High crop productivity helps assure a reliable food supply thereby increasing food security. Increasing crop productivity is also an essential aspect of reducing the greenhouse gas footprint of food production. Moreover, judicious use of N fertilizer, along with other crop production inputs, provides significant economic value to growers, farm workers, ancillary industries, and society.

EU-5

Third, the adoption of specific maximum N application rates is agronomically unsound and not supported by many years of field research conducted by universities, the USDA, and private industry. Optimum N management is based on implementing the Four R's of Nutrient Stewardship including: 1) using the right N source; 2) applied at the right rate; 3) applied at the right time; and 4) applied at the right place. The 4 R's of Nutrient Stewardship are based on the concept that the optimum N rate, source, time, and placement must be prescribed by a qualified agronomist based on the specific crop, field, and environment where the crop is being grown. Placing an arbitrary limit on the amount of nitrogen to apply to a crop is not an appropriate way to manage a crop that is grown within an agro-ecologically dynamic system.

EU-6

Finally, I encourage the CCWQCB to adopt the improvements proposed by the Ag Association partners. These improvements to the Order will achieve the desired objectives to improve groundwater quality while also permitting farmers to continue to improve their agronomically sound nutrient management practices.

Sincerely,

Steve Petrie

Steve Petrie, Ph.D.
 Director- Agronomic Services
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 100 North Tampa Street Suite 3200
 Tampa, United States
www.yara.com

Knowledge grows



Response to Comment EU-1

The CCWB acknowledges the commenter's background and interests.

Response to Comment EU-2

The comment is noted.

Response to Comment EU-3

The comment is noted.

Response to Comment EU-4

The comment is noted.

Response to Comment EU-5

This comment is summarized and responded to in Master Response 2.3.10.

Response to Comment EU-6

This comment is summarized and responded to in Master Response 2.1.14.

Letter EV: Lowell Zelinski, Precision Ag Consulting (June 22, 2020)**Letter EV**

From: lowell@precisionagconsulting.com
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 4:42:37 PM
Attachments: [Ag Order 4.0 Comments - final version.pdf](#)

EXTERNAL:

Find attached my comments on the Draft Ag Order 4.0

If there are any questions or problems – reach out to me

Dr. Lowell Zelinski
Precision Ag Consulting
1810 Thistle Way
Paso Robles, CA 93446

805-286-6544

January 22, 2020

Mr. Matt Keeling, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Comments on Proposed Ag Order 4.0

EV-1 Thank you for this opportunity to comment on proposed Ag Order 4.0 (order) and the various attachments, as well the Draft Environmental Impact Report (DEIR). My comments will be divided into two parts: 1) comments about the order in general, and 2) comments on specific sections in the order.

General Comments

EV-2 It is my understanding, and that of the agriculture community, that the Regional Board's goal is to restore and preserve the water quality on the Centra Coast of California, and that in order to do that, it is developing a program with which growers can comply. In order for growers to comply, they must be able to understand the order and its goals; therefore, many of my comments are directed towards helping the Regional Board develop an effective order that is not overly-burdensome and confusing.

EV-3 In general, the entire order is burdensomely long. There are approximately 950 pages in 5 different documents which precludes many of the stakeholders from reading, let alone understanding, the regulations that may affect their businesses.

EV-4 The proposed order is overly complex and therefore, compliance with all of the diverse aspects of the order will be low – not because growers don't want to comply – but because they are unaware of the need and/or the don't have the expertise, nor don't know how to get it. Compliance requirements are spread throughout the various documents, making it difficult to know where, what and how to comply with the various aspects of the order. It would be more effective if all the various compliance requirements were summarized in one document.

EV-5 An additional area of complexity is the proposal for specific geographic areas be required to comply with requirements at different times. Many stakeholders have ranches that are located in two or more of the priority areas. This means some operations will have ranches with differing reporting

EV-5 cont.	↑	requirements. Since many operations have 20 or more ranches, keeping track of, and therefore complying with the numerous and variable requirements will be exceptionally difficult and lead to many errors.
EV-6	↑	There is a major expansion of compliance areas covered. The proposed order has been expanded to included specific pesticides presence, erosion control requirements with the development and implementation of an erosion management plan – and possibly the most onerous requirement – for restoration of riparian habitat that probably did not exist in the past. The Regional Board should be required to show that the water quality criteria they are requiring has existed at some time in the past. It does not make any sense to require stakeholders to “restore” water quality parameters to conditions which cannot be shown to have existed. As an example, in the past ten years, San Lorenzo Creek near King City has averaged one day per year with water flow in the channel. Many years there was no water flow for the entire year. To require the “re”-establishment of a riparian condition that may have never existed is ludicrous.
EV-7	↑	Even “phasing-in’ areas that are required to comply with the multitude of (for many) new compliance requirements, there will be a major expansion of the number of businesses subject to new regulatory requirements. This is primarily due to the removal of tiering which existed in Ag Orders 2 and 3. For Ag Orders 2 and 3, most of the operations with tier 3 ranches used consultants to help them comply with the regulations. In regard to those operations who grew crops with high potential for leaching of nitrate, this was about 20 ranches and approximately 12 operations. Ag Order 4.0 intends to remove this designation and require all dischargers to comply with many new regulations. That would bring the number of ranches that need to comply to around 4,000. There simply are not enough qualified consultants to fill the greatly expanded need. Additionally, there are currently not enough board staff to oversee compliance with the thousands of ranches that need to comply now.
EV-8	↓	Many times throughout the order, it was proposed that third parties could aid with compliance. Other than Preservation Inc. and the Central Coast Groundwater Collation (CCGC), there are no identified or qualified third parties. Additionally, no third party has expertise in all of the areas (groundwater protection, surface water protection, pesticide contamination monitoring, erosion and sediment control and riparian habitat development) proposed. Therefore, this may mean there will be many types of third parties and growers would have to enroll with numerous ones, which will increase cost and complexity.

EV-8
cont.

The cost of compliance review in the DEIR is incomplete and inadequate, especially regarding riparian habitat compliance and costs.

Summary of New Requirements in Ag Order 4 versus Ag Order 3

Below is a table outlining the new requirements for compliance. This comes from the Executive Summary in the Draft EIR. The purpose of including this table is to highlight just some of the new requirements!

Table ES-1. Primary New or Expanded Requirements under Agricultural Order 4.0 as Compared to Agricultural Order 3.0

EV-9

New or Expanded Requirement in Agricultural Order 4.0	Relevant Existing Requirement in Agricultural Order 3.0
<ul style="list-style-type: none"> All enrollees must implement management practices and submit an Annual Compliance Form (ACF) describing the management practices. All enrollees must comply with application limits, discharge limits, and receiving water limits, in accordance with time schedules, to prevent discharges of waste from causing or contributing to the exceedance of water quality objectives or the loss or degradation of beneficial uses. 	<ul style="list-style-type: none"> Tier 2 and 3 enrollees must submit an ACF describing management practices they are implementing. All enrollees are required to implement improved or additional management practices as necessary to prevent discharges of waste from causing or contributing to the exceedance of water quality objectives or the loss or degradation of beneficial uses; however, there are no application limits, discharge limits, receiving water, or time schedules in Agricultural Order 3.0.
<ul style="list-style-type: none"> All enrollees with waterbodies on or adjacent to their ranch must establish an operational setback (1.5 times the width of the waterbody). Enrollees in prioritized areas with waterbodies on or adjacent to their ranch must establish a more robust riparian setback following one of four compliance pathways (the on-farm setback compliance pathway requires riparian setbacks ranging from 50 to 250 feet, depending on the waterbody). 	<ul style="list-style-type: none"> A subset of Tier 3 enrollees must implement a 30-foot riparian buffer or the functional equivalent.
<ul style="list-style-type: none"> All enrollees must submit an Irrigation and Nutrient Management Plan (INMP) Summary report, which includes monitoring and reporting of nitrogen applied/removed, crop evapotranspiration, and irrigation discharge to surface water and groundwater. 	<ul style="list-style-type: none"> A subset of Tier 3 enrollees must submit an INMP Effectiveness Report, including monitoring and reporting of nitrogen applied/removed and crop nitrogen uptake.



EV-9
cont.

<ul style="list-style-type: none"> Enrollees whose ranches exceed the numeric discharge limits per the time schedule for groundwater protection may be required to perform ranch-level groundwater discharge monitoring, including monitoring of irrigation discharge to groundwater nitrate concentration and irrigation discharge to groundwater volume. 	<ul style="list-style-type: none"> There are no discharge limits or time schedules for groundwater discharges and ranch-level discharge to groundwater monitoring and reporting is not required.
<ul style="list-style-type: none"> All irrigation wells and all domestic wells on enrolled parcels must be monitored annually. 	<ul style="list-style-type: none"> The primary irrigation well and all domestic wells on enrolled parcels must be monitored twice during the term of Agricultural Order 3.0.
<ul style="list-style-type: none"> All enrollees are required to conduct groundwater quality trend monitoring, either individually or through a cooperative program. 	<ul style="list-style-type: none"> Groundwater quality trend monitoring and reporting is not required.
<ul style="list-style-type: none"> A follow-up surface receiving water implementation work plan (individual or cooperative) will be required for ranches in prioritized areas that exceed the numeric limits prior to the compliance date in the time schedules for surface water protection. 	<ul style="list-style-type: none"> Follow-up surface receiving water monitoring is not required.
<ul style="list-style-type: none"> Enrollees in areas that exceed the numeric surface receiving water limits for surface water protection may be required to perform ranch-level surface discharge monitoring. 	<ul style="list-style-type: none"> A subset of Tier 3 enrollees must perform ranch-level surface discharge monitoring and reporting.
<ul style="list-style-type: none"> Enrollees whose ranches have impermeable surfaces during winter on slopes equal to or greater than 5 percent must have a Sediment & Erosion Management Plan designed by a qualified professional. 	<ul style="list-style-type: none"> No such requirement in Agricultural Order 3.0.

Note: Some requirements, including surface receiving water trend monitoring and development of a Farm Plan that includes sections on irrigation, nutrient, pesticide, sediment, erosion, stormwater, and aquatic habitat management, were required through Agricultural Order 3.0 and therefore are not new or expanded requirements in Agricultural Order 4.0 shown in this table.

Enrollment - eNOI

EV-10

11d Contact information – since many ranches have many people involved with compliance of the Ag Order, it would be beneficial if the option for identifying additional contacts relative to the Order – maybe up to 10.

EV-11

11n Asks for slope – if a ranch has variability in slope, which one needs to be provided?

- EV-12 | 11 | Asks for impermeable surface – expansion is needed on this question. Do you want type, percent of ranch area by type?
- EV-13 | 18 | Termination of operations – immediately after a ranch is terminated, the grower cannot go back and update info, and thus, cannot submit required reports.

- EV-14 | **Fees**
15, 16, 17 | Hard to comment on fees since they are unknown.

- EV-15 | **Third-Party Programs**
31 – 34 | Other than Preservation Inc, and maybe CCGC, it is hard to comment on the idea of third parties as a mechanism of compliance since none exist at this time. Given all the requirements for third parties as spelled out in section 34, it is unlikely that one will exist quickly and a review of the desirability of belonging is impossible to know

- EV-16 | **Farm Plan**
This is a large expansion in the items required in a Farm Plan. Since the CCWB does not review farm plans, many (all) will be developed with no idea if they are in compliance.
- Irrigation and Nutrient Management Plan for Groundwater (INMP)
 - Irrigation and Nutrient Management Plan for Surface water
 - Pesticide Management Plan (PMP)
 - Sediment and Erosion Management Plan (SEMP)
 - Riparian Area Management Plan (RAMP)
 - Many other data tracking and reporting requirements, which are dispersed throughout the Ag Order and the MRP. It is difficult to know where they all are, and thus, will make it hard to comply.

- EV-17 | **ACF**
1) Irrigation and nutrient management for Groundwater Protection
- a. INMP for all dischargers – would go from about 20 to more than 4,000
 - b. TNA Report – would be required for all dischargers
 - c. INMP Summary Report

EV-17 cont.	d. Groundwater Trend Monitoring 2) Irrigation and nutrient management for Surface Water Protection <ul style="list-style-type: none"> a. Similar to what Preservation Inc. is doing now b. Some dischargers may have to do “ranch level monitoring” but order does not spell out how those dischargers would be identified, nor does it say – “how they would have to comply” <ul style="list-style-type: none"> i. Would a SAP and QAPP be required? <ul style="list-style-type: none"> 1. Expensive to prepare 2. Expensive to perform
EV-18	3) Pesticide management for surface water protection
EV-19	4) Sediment and Erosion Management
EV-20	5) Riparian Area Management
EV-21	Water Quality Education What is required here? This section is vague and so are the mechanics (who from an operation can / needs to obtain education). How many hours are required? What is the subject matter that needs to be covered? Who is qualified to provide the training?
EV-22	CEQA Mitigation Measure Implementation What are these? Impossible to comment on if not known specifically.

Specific Comments on Ag Order 4.0

	Part 2, Section C.1. Irrigation and Nutrient Management for Groundwater Protection
EV-23	It appears that each “ranch” must have its own INMP. If an operation farms many ranches, essentially in the same fashion, can there be an “operation-wide” INMP which covers all the ranches?
EV-24	1b – the tables referenced in this section prescribe specific limits to specific farming practices. I was under the impression that the CCWB could not mandate specific farming practices but could only impose limits on the amount and/or concentration of materials in a discharge. Do I have this wrong and/or did something change?
EV-25	1d – How will the EO determine if groundwater quality limits, et cetera exceedances were caused by the current ranch, and not a previous ranch and/or neighboring ranch? It is entirely possible that the current ranch operations are not causing the exceedance. Also is there a method to appeal the EO decision?
EV-26	2 – Do the limits go into effect in 2022 for the entire CC region? I thought there was a phasing in of the discharge limits, depending on where the ranch was located.
EV-27	3 – see comments on section 1b
EV-28	4 – The requirement to include ACOMP is not a benefit. It will still add to the A and this affects A-R, which in time is going to be impossible to comply with, even allowing for a mineralization factor C. It is also suggested that an accurate estimate of C is impossible to determine as it depends on too many uncontrollable influences. Most growers do not apply compost as a source of nitrogen, but as a material to improve the physical characteristics of the soil.
EV-29	For the sentences that end in “pounds per acre” I suggest it be changed to “pounds of N per acre” to avoid confusion.
EV-30	4g – RSEQ – is the CCWB going to provide guidance on this or is this up to the grower to quantify?
EV-31	4h – RTREAT – I do not see how this applies to groundwater protection. Maybe surface water, but this section deals with groundwater. No one is going to treat soil water leaching below the rootzone for removal of N. I suggest that if anyone proports to do

EV-31 cont.	↑	that, that they be instructed to claim it in ROTHER and document the method and amount of N reduction.
EV-32		5 – For the most part, I think this is an excellent approach. I would add, however, that water quality concerns, salinity, somehow be incorporated in this compliance pathway. The last sentence in this section indicates that irrigation water nitrogen must be reported. Where would that be required? Is it Crop specific?
EV-33	I	6 – Answers some of my questions from section 4
EV-34		7 – I have provided a methodology for estimating conversion coefficients to the regional board a few times in the past. My methodology agrees with the values provided for the very limited number of vegetable crops provided by the board staff. My methodology is based on protein content of harvested portion. Is that methodology acceptable to the board? If not, can I appeal the decision?
EV-35	I	11 & 12 What is the difference in these two sections?
EV-36		13 – I would reword paragraph as follows: - Anyone who can grow a crop with less than 50 lbs of N per acre annually should be exempt. Dischargers who apply fertilizer nitrogen (Afer) to any specific crop and who are able to demonstrate compliance with the final nitrogen discharge limit of 50 pounds of nitrogen per acre per year, through either compliance pathway, are exempt from the fertilizer nitrogen application limit.
EV-37		14 – In general, I agree, but I would change the annual update to once every three years.
EV-38	I	17 – I would add a phrase like: “except as modified below”
EV-39		22 – A summary of what is meant by “Groundwater Trend Monitoring” should be provided here
EV-40	I	22a & 22b – These will be hard to comply with in the early years of the Ag Order.
EV-41		23 – How will the CCWB know if groundwater quality is being impaired by the current operator, and not the previous operator or a neighbor? The development of a SAP and QAPP is expensive, and there are very few consultants willing to do this. If a grower cannot find or afford someone to help with the development of the work plan / SAP / QAPP, what are their recourses?

EV-42 | 24 – Does this section belong in section C.3? The question of how the CCWB will know the source of the pesticides is relevant.

EV-43 | **Part 2, Section C.2. Irrigation and Nutrient Management for Surface Water Protection**

It would be beneficial if the items that have been historically performed by Preservation Inc. were spelled out. That way a grower could know what “new” regulations and requirements pertain to them individually.

EV-44 | 1 – See comments under Part 2, Section C.1. Same questions apply here.

EV-45 | 2 & 3 – If a grower has ranches in both areas the both sections apply, I assume. This can become confusing and lead to errors in compliance.

EV-46 | 4 – What is the time period for trying to determine if the water quality is “better”? Can it be any time? Who is responsible for sampling to determine the water quality, and how will the grower be informed of the results?

EV-47 | 5 – Questions here are similar to the other sections where ranch level monitoring may be required. How does a grower know if he is required to perform the ranch-level monitoring and how will the CCWB determine the source of exceedances?

EV-48 | 8 & 9 – See previous comments on SAP and QAPP development and determination of sources of exceedances.

EV-49 | **Part 2, Section C.3. Pesticide Management for Surface Water Protection**

1a – note that there are two 1.a sections. I assume the second 1.a section was meant to be 1.d. Who is qualified to develop a Pesticide Management Plan? Isn’t most of this redundant with DPR regulations and requirements?

EV-50 | 2 & 3 & 4 – How will grower know if they are causing an exceedance in regards to the chemicals in table C.3-1 and C.3-2? How frequently will monitoring and analysis be required? Is the CCWB aware that testing for all the chemicals in the tables will cost many thousands of dollars per sample? Also, it is highly likely that many operations will have ranches in areas with and without TMDL. Thus, there will be differing requirements

EV-50 ↑ based on ranch location for the same operation. This will lead to confusion and errors in compliance.

EV-51 ↓ 5 & 6 – See previous comments regarding ranch level monitoring.

EV-52 ↓ 7 – The discharge of waste as described in this section is already prohibited by DPR regulations so why is this section necessary?

EV-53 ↓ 8 & 9 & 10 – See previous comments on development of work plans, SAP and QAPP. Also note that these sections require expertise not usually available to consultants providing help with sections C.1 and C.2. Therefore, another group of consultants would be required for compliance with these sections. I do not think that this new group of experts exist at this time.

EV-54 ↓ **Part 2, Section C.4. Sediment and Erosion Management for Surface Water Protection**

EV-54 ↓ 1 – Note there is no section 1.d. The section goes from 1.c to 1.e and skips 1.d. Who is qualified to develop the Sediment and Erosion Management Plan?

EV-55 ↓ 2 through 6 – See comments in previous sections regarding the topics raised in these sections.

EV-56 ↓ 7 & 8 – This level of technical knowledge is beyond 99% of the growers on the central coast. Thus, another set of experts will be required to aid in compliance with these sections. I do not believe this group of experts exist at this time.

EV-57 ↓ 9 – Is the sediment and erosion control plan different from the SEMP? I do not believe that there is a group of experts currently available to assist growers with this section. Who “qualifies” the professional? How much of the slope (feet) must be greater than 5%?

EV-58 ↓ 10 & 11 & 12 – See previous comments on work plans, SAP and QAPP developments and expenses.

EV-59 ↓ 14 – In this section you indicate that the SEMP needs to be developed by a qualified professional. That was not stated in Section 1 (the qualified professional section) so does the SEMP need to be developed (and certified) by a qualified professional? If so, that should be indicated in section 1.

EV-60 ↓ **Part 2, Section C.5. Riparian Area Management for Water Quality Protection**

EV-60 ↑ Though I have many concerns regarding these requirements, I am aware that many will be
cont. I raised in other comments. Therefore, I will not express them at this time.

EV-61 | **Specific Comments on Monitoring and Reporting Program (MRP)**
Many of the sections here are identical to the sections in the Ag Order. I will not repeat the questions addressed in the Ag Order Section

EV-62 | **Total Nitrogen Applied (TNA) Monitoring and Reporting**

8 – The 640 acre reporting limit doesn't make sense on the Central Coast as most of the ranch boundaries do not coincide with the PLSS Township, Range and Section boundaries. I suggest rounding value to 600 or 700 acres.

EV-63 | 9 – Is there a list of "specific crops"?

EV-64 | 9a – It is required to include nitrogen for "all other materials". There are certain pesticides that contain nitrogen as part of their chemical structure. These should be excluded from this requirement.

EV-65 | 10f – This is confusing. It will be reported twice on the form, but not twice in the **Afer** section.

EV-66 | 12a – I would change the word "inform" to "influence".

EV-67 | 13a – Add "or an INMP Summary report".

EV-68 | 14a – Add "or an INMP Summary report".

EV-69 | 15a – Why is there a separation of organic versus conventional reporting requirement? Both methods can equally influence nitrate in groundwater.

EV-70 | **Irrigation and Nutrient Management Plan (INMP) Summary Report Monitoring and Reporting**

14a – This requirement would be exceptionally difficult to accurately comply with. Each crop on a ranch is composed of "plantings". There can be dozens to hundreds of plantings each year on a specific ranch. Each planting has a unique amount of ET. This section requires the estimation of ET on each planting. I currently consult with operations that have thousands of planting each year. I estimate that we would have to estimate ET on 50,000 plantings. Since ET changes every day and assuming the average time between planting and harvest is 100 days, we would have to record 5,000,000 separate estimates of ET. Not only will this be overly burdensome for the growers, will the Regional Board staff be able to process this much data? I understand the purpose of this requirement, but there has to be a better way of complying.

EV-71 ↓ **Groundwater Monitoring and Reporting**

EV-71 cont.	↑	Will the results of the monitoring be confidential?
EV-72	I	4 – What is the justification for adding 1,2,3-TCP to the requirement? It adds an additional \$100 - \$150 per sample. Does the data from the analysis need to be uploaded by the lab to Geotracker?
EV-73	I	6 – Does the notification need to occur if none of the constituents exceed the MCL?
EV-74	I	7 – Does the “Statement” need to be provided if the nitrate level is below the MCL? If so, what is the purpose? I would change the last sentence to: “Notifications must be provided in a language that is understood by the well users”.
EV-75	I	8 – Does this section apply if none of the sample constituents exceed their MCL’s?
EV-76	I	9 & 10 – This section is confusing. Does the data from the analysis need to be uploaded by the lab to Geotracker?
EV-77	I	16 & 17 – If an individual does not farm in the groundwater phase 1 or 2 areas, do they need to develop a monitoring plan for those areas?
EV-78	I	24 – How will the EO determine the groundwater quality data? How will the EO know the source of the high nitrates?
EV-79	I	Surface Water Monitoring and Reporting What portions of these requirements have been traditionally done by Preservation Inc.?
EV-80	I	22 – How will the EO know the information that can trigger ranch level monitoring? See previous comments on work plans, SAP and QAPP.
EV-81	I	25 – What if non-comingled are not available?
EV-82	I	29 – This is confusing? What is meant by preceding two calendar quarters?
EV-83	I	29c – Does lab information need to be uploaded by the lab?
EV-84	I	Annual Compliance Form (ACF) See comments above regarding ACF

Response to Comment EV-1

This comment is noted.

Response to Comment EV-2

This comment is summarized and responded to in Master Response 2.1.4.

Response to Comment EV-3

This comment is summarized and responded to in the following Master Responses: 2.1.2 and 2.1.4.

Response to Comment EV-4

This comment is summarized and responded to in the following Master Responses: 2.1.2 and 2.1.4.

Response to Comment EV-5

This comment is summarized and responded to in the following Master Responses: 2.1.6 and 2.3.1.

Response to Comment EV-6

This comment is responded to in Master Response 2.8.8.

Response to Comment EV-7

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.7; and 2.1.4.

Response to Comment EV-8

This comment is summarized and responded to in the following Master Responses: 2.8.8; 2.9.1; and 2.2.1.

Response to Comment EV-9

This comment is noted.

Response to Comment EV-10

This comment is noted.

Response to Comment EV-11

This comment is noted.

Response to Comment EV-12

This comment is noted. In response to comments on preparing an electronic Notice of Intent and instructions for compliance with the requirements, refer to Master Response 2.1.4.

Response to Comment EV-13

This comment is noted.

Response to Comment EV-14

This comment is noted.

Response to Comment EV-15

This comment is summarized and responded to in Master Response 2.2.1.

Response to Comment EV-16

This comment is summarized and responded to in the following Master Responses: 2.8.8 and 2.5.10.

Response to Comment EV-17

This comment is summarized and responded to in the following Master Responses: 2.3.7; 2.3.1; 2.4.1; 2.4.2; 2.5.5; 2.5.7; and 2.5.3.

Response to Comment EV-18

This comment is summarized and responded to in Master Response 2.6.2.

Response to Comment EV-19

This comment is summarized and responded to in Master Response 2.7.1.

Response to Comment EV-20

This comment is responded to in Master Response 2.8.8.

Response to Comment EV-21

This comment is summarized and responded to in Master Response 2.1.15.

Response to Comment EV-22

Appendix D of the DEIR includes mitigation measures identified in the CCWB's DEIR. For each mitigation measure, this table identifies monitoring and reporting actions that must be carried out and the monitoring schedule.

Response to Comment EV-23

This comment is summarized and responded to in Master Response 2.3.1.

Response to Comment EV-24

This comment is summarized and responded to in Master Response 2.1.2.

Response to Comment EV-25

This comment is summarized and responded to in Master Response 2.4.2.

Response to Comment EV-26

This comment is summarized and responded to in the following Master Responses: 2.3.2 and 2.5.1.

Response to Comment EV-27

This comment is summarized and responded to in Master Response 2.1.2.

Response to Comment EV-28

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EV-29

This comment is noted.

Response to Comment EV-30

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EV-31

This comment is noted.

Response to Comment EV-32

This comment is noted.

Response to Comment EV-33

This comment is noted.

Response to Comment EV-34

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EV-35

This comment is noted.

Response to Comment EV-36

This comment is summarized and responded to in Master Response 2.3.5.

Response to Comment EV-37

This comment is noted.

Response to Comment EV-38

This comment is noted.

Response to Comment EV-39

This comment is summarized and responded to in Master Response 2.4.1.

Response to Comment EV-40

This comment is noted.

Response to Comment EV-41

This comment is summarized and responded to in Master Response 2.4.2.

Response to Comment EV-42

This comment is noted.

Response to Comment EV-43

This comment is summarized and responded to in Master Response 2.5.7.

Response to Comment EV-44

This comment is noted.

Response to Comment EV-45

This comment is noted.

Response to Comment EV-46

This comment is summarized and responded to in the following Master Responses: 2.2.1; 2.5.6; 2.5.1; and 2.5.11.

Response to Comment EV-47

This comment is summarized and responded to in the following Master Responses: 2.5.11 and 2.5.12.

Response to Comment EV-48

This comment is summarized and responded to in Master Response 2.5.12.

Response to Comment EV-49

This comment is summarized and responded to in the following Master Responses: 2.2.1 and 2.6.2.

Response to Comment EV-50

This comment is summarized and responded to in Master Response 2.9.1; 2.2.1; 2.5.6; and 2.6.3.

Response to Comment EV-51

This comment is noted.

Response to Comment EV-52

This comment is summarized and responded to in the following Master Responses: 2.6.1 and 2.6.2.

Response to Comment EV-53

This comment is noted.

Response to Comment EV-54

This comment is summarized and responded to in Master Response 2.7.1.

Response to Comment EV-55

This comment is noted.

Response to Comment EV-56

This comment is noted.

Response to Comment EV-57

This comment is summarized and responded to in the following Master Responses: 2.7.5 and 2.7.1.

Response to Comment EV-58

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment EV-59

This comment is summarized and responded to in Master Response 2.7.5.

Response to Comment EV-60

This comment is responded to in Master Response 2.8.8.

Response to Comment EV-61

This comment is noted.

Response to Comment EV-62 through EV-63

This comment is summarized and responded to in Master Response 2.3.10.

Response to Comment EV-64

This comment is noted.

Response to Comment EV-65

This comment is noted.

Response to Comment EV-66

This comment is noted.

Response to Comment EV-67

This comment is noted.

Response to Comment EV-68

This comment is noted.

Response to Comment EV-69

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EV-70

This comment is summarized and responded to in Master Response 2.3.8.

Response to Comment EV-71

This comment is noted.

Response to Comment EV-72

This comment is summarized and responded to in Master Response 2.4.3.

Response to Comment EV-73

This comment is summarized and responded to in the following Master Responses: 2.4.6 and 2.4.3.

Response to Comment EV-74

This comment is summarized and responded to in Master Response 2.4.6.

Response to Comment EV-75

This comment is noted.

Response to Comment EV-76

This comment is noted.

Response to Comment EV-77

This comment is summarized and responded to in Master Response 2.4.1.

Response to Comment EV-78

This comment is summarized and responded to in the following Master Responses: 2.4.2 and 2.5.3.

Response to Comment EV-79

This comment is summarized and responded to in Master Response 2.5.7.

Response to Comment EV-80

This comment is summarized and responded to in Master Response 2.5.3.

Response to Comment EV-81

This comment is noted.

Response to Comment EV-82

This comment is noted.

Response to Comment EV-83

This comment is noted.

Response to Comment EV-84

This comment is noted.

Letter EW: Jill Holihan, Pyrethroid Working Group (June 22, 2020)**Letter EW**

From: [Jill Holihan](#)
To: AqNOI_WB@Waterboards
Cc: [Tess Dunham](#)
Subject: PWG Comments on Ag Order 4.0
Date: Monday, June 22, 2020 5:48:34 PM
Attachments: [PWG Comment Letter on Central Coast Ag Order 4.0.pdf](#)

EXTERNAL:

Please find attached comments from the Pyrethroid Working Group to the Central Coast Water Board regarding the proposed Central Coast Irrigated Lands Regulatory Program (Ag Order 4.0).

We appreciate the opportunity to comment.

Sincerely,
Jill Holihan
Chair, Pyrethroid Working Group

June 22, 2020

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Ste 101
San Luis Obispo, CA 93401

Attention Matthew T. Kelling, Executive Officer

EW-1

On behalf of the Pyrethroid Working Group (PWG), we write today in support of the statement prepared by the Agricultural Association Partners regarding the proposed Central Coast Irrigated Lands Regulatory Program (Ag Order 4.0.) In particular we note that the Order's requirements for sediment and erosion control are overly broad. Further, the related numeric water quality objective for pesticides, including pyrethroids, have never been properly adopted by the Board.

EW-2

The Central Coast Water Board must recognize the limits on its regulatory authority over pesticides which is to "reasonably regulate and protect water quality." Authority to regulate pesticide sales and use rests with the California Department of Pesticide Regulation, as codified in a comprehensive body of law by the California legislature. As such, the Water Board cannot set limitations on the manner or amount of pesticide use. Restrictions proposed in Ag Order 4.0 may have the practical impact of doing just that. As stated by the Agricultural Association Partners, "Prohibiting the discharge of such materials, even if aligned with proposed limits, may result in prohibiting the use of the material altogether."

EW-3

Finally, we support the concept of a watershed-based third- party group for coordinated action for surface water monitoring and reporting. In fact, the PWG has initiated discussions with grower groups on the Central Coast to provide additional product stewardship of agricultural uses of pyrethroids. This will mirror stewardship work PWG has conducted for structural pest control professionals, homeowners and gardeners in collaboration with the California Department of Pesticide regulation for many years. Starting with training videos, we will work to assure that growers are aware of label requirements for all applications, including rates and buffer zones. We hope to actively engage as growers refine techniques to limit pesticide run off.

Response to Comment EW-1

This comment is summarized and responded to in the following Master Responses: 2.1.14 and 2.7.1.

Response to Comment EW-2

This comment is summarized and responded to in the following Master Responses: 2.6.1 and 2.6.2.

Response to Comment EW-3

This comment is summarized and responded to in Master Response 2.5.5.

Letter EX: Delia Bense-Kang, Brad Snook, Allison Webster, Antony Tersol, Surfrider Foundation (June 22, 2020)**Letter EX**

From: [Delia Bense-Kang](#)
To: [AgNOI_WB@Waterboards](#)
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 8:49:15 PM
Attachments: [Comments on Draft Ag Order 4.0 - Surfrider Foundation.pdf](#)

EXTERNAL:

Dear Chair Wolff, Executive Officer Keeling, Board and Staff,

On behalf of our respective chapters of Surfrider Foundation ("Surfrider") and our chapter members, please see the attached comments in regards to the Draft Agricultural Order 4.0 (proposed order).

Thank you for the opportunity to comment on this important issue.

Sincerely,
Delia Bense-Kang

--

Delia Bense-Kang | Northern and Central CA Regional Coordinator | Surfrider Foundation
Pronouns: She/her/hers [what's this?](#)
t: 707.497.8866. | dbense-kang@surfrider.org



June 22, 2020

Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101 San Luis Obispo,
 CA. 93401-7906 c/o Matthew T. Keeling, Executive
 Officer Matt.Keeling@waterboards.ca.gov

RE: Comments on Draft Ag Order 4.0

Via electronic mail

Dear Chair Wolff, Executive Officer Keeling, Board and Staff,

EX-1

We write to you on behalf of our respective chapters of Surfrider Foundation ("Surfrider") and our chapter members in regards to the Draft Agricultural Order 4.0 (proposed order). Surfrider Foundation is an environmental nonprofit organization dedicated to the protection and enjoyment of our world's oceans, waves and beaches through a powerful activist network.

EX-2

We wish to comment on the proposed order because improvement of coastal water quality is *the* issue around which our organization was organized and founded, and it remains amongst the core issues we continue to focus on now—35 years later. Some of the most toxic water bodies in the region—the Salinas River and the Santa Maria River—converge with the ocean and create sandbars at Salinas River State Beach and Guadalupe County Beach, which in turn create waves that our members surf. Of course, there are other creatures and beneficial uses to consider as well.

EX-3

The Central Coast Regional Water Quality Control Board (the Board) is tasked with protecting the waters of our region to support beneficial uses and regulating dischargers whose discharge could adversely impact these beneficial uses and water quality objectives. We urge you to keep these duties front of mind and overcome the pressures that may attempt to steer your focus elsewhere.

- EX-4 | We appreciate the work that has gone into this latest draft and believe it is a step in the right direction.
- EX-5 | As the California legislature has acknowledged and declared, “the people of the state have a primary interest in the conservation, control, and utilization of the water resources of the state, and [...] the *quality of all the waters of the state shall be protected for use and enjoyment* by the people of the state.” (Cal. Water Code § 13000, emphasis added). Further, as the California Supreme Court has recognized, one of the most important public trust uses of the state’s waterways is “the preservation of those lands in their natural state, so they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area.” (*National Audubon Society v. Superior Court*, 33 Cal.3d 419 (1983), citing *Marks v. Whitney*, Cal.3d 251 (1971)). As a trustee of the public trust for the benefit of the people of the state, the Board has an obligation to protect the quality of the state’s waterways in order to protect these uses.
- EX-6 | With these obligations in mind, we would like to voice our support and concerns below:
- Surfrider acknowledges and supports the Board’s steps to include application and discharge limits that are clear, measurable, and enforceable, to bring about meaningful improvements in water quality.
 - We are appreciative that the Board is trying to comply with the Non Point Source Policy in this version of the proposed order. However, we believe that merely including one ultimate deadline for compliance with new limits and targets, often many years in the future, is not effective. While the order purports to include specific quantifiable milestones and time schedules for when agricultural discharges will not cause exceedances of water quality objectives, it’s effectively setting one numerical limit and one year by which compliance with that limit must be achieved. We would like to see interim requirements justified by facts that prompt immediate action towards improving water quality and attaining water quality objectives.
 - We would like to see wetland and riparian habitats be protected for their beneficial uses and ecosystem services, including natural water quality treatment.
 - The Board should not delegate their nonpoint source (NPS) authorities and responsibilities to another agency, such as the Department of Pesticide Regulation. While the NPS Policy encourages regional boards to incorporate the efforts of other agencies, it does not allow boards to rely on external regulation or enforcement.
 - All monitoring results must be available to the public. Aggregated or anonymized data do not fulfill this requirement.
 - Anti-Degradation Policy, waste and unreasonable use, the Human Right to Clean and Affordable Drinking Water, and protection of water quality as a public trust are obligations the Board must apply and enforce.
 - Thank you for acknowledging that third-party coalitions can assist growers to comply with the proposed order. It’s critical that the growers see the coalition as their peers and
- EX-7 |
- EX-8 |
- EX-9 |
- EX-10 |
- EX-11 |
- EX-12 |

EX-12 ↑
cont.

partners, and the public trusts the coalition to be transparent and accountable for the Order's success.

EX-13

- While the proposed order provides on pages 43 and 44 that dischargers taking a cooperative approach to compliance via third party organizations must select a different compliance pathway if the third party does not form or if the Cooperative Watershed Restoration Plan is not submitted by the deadline, or if implementation does not begin when required, the proposed order should explicitly state that dischargers will remain responsible in the event a third party organization does not fully comply with the proposed order, and the Board will continue to enforce all requirements against dischargers.

EX-14

Overall, we encourage Board members to support a strong programmatic framework that will lead to significant reductions in pollution, elimination of toxicity, and transparency in addressing water quality problems within the effective time frame of the order. We believe the proposed Ag Order 4.0 is a reasonable step in this direction and ask that the Board improve upon, but not erode, any of its provisions.

EX-15

Thank you for the opportunity to comment on this important issue.

Sincerely,

Delia Bense-Kang
Northern and Central California Regional Coordinator
Surfrider Foundation

Brad Snook
Chair
Surfrider Foundation, San Luis Obispo Chapter

Allison Webster
Chair
Surfrider Foundation, Santa Cruz Chapter

Antony Tersol
Vice Chair
Surfrider Foundation, Monterey Chapter

Response to Comment EX-1

The CCWB acknowledges the commenter's background and interests.

Response to Comment EX-2

This comment is noted.

Response to Comment EX-3 through EX-4

This comment is summarized and responded to in Master Response 2.1.1.

Response to Comment EX-5

This comment is summarized and responded to in Master Response 2.1.2.

Response to Comment EX-6

This comment is summarized and responded to in Master Response 2.1.1.

Response to Comment EX-7

This comment is summarized and responded to in Master Response 2.5.1.

Response to Comment EX-8

This comment is responded to in Master Response 2.8.8.

Response to Comment EX-9

This comment is summarized and responded to in the following Master Responses: 2.4.5 and 2.6.1.

Response to Comment EX-10

The comment is noted.

Response to Comment EX-11

This comment is summarized and responded to in Master Response 2.5.9.

Response to Comment EX-12

This comment is summarized and responded to in Master Response 2.2.4.

Response to Comment EX-13

This comment is responded to in Master Response 2.8.8.

Response to Comment EX-14

Thank you for your comment.

Response to Comment EX-15

Thank you for your comment.

Letter EY: J. Stacey Sullivan, Sustainable Conservation (June 22, 2020)**Letter EY**

From: [Kelli McCune](#)
To: [AgNOI_WB@Waterboards](#)
Cc: [Stacey Sullivan](#); [Ashley Boren](#); [Daniel Mountjoy](#); [Eric Lee](#); [Ryan Flaherty](#); [Kelli McCune](#)
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 4:59:04 PM
Attachments: [SustainableConservation_CommentsDraftAgOrder.pdf](#)

EXTERNAL:

Dear Mr. Keeling,

Please find attached Sustainable Conservation's comments on the Draft Ag Order. We appreciate the opportunity to comment, and would be grateful for notification of receipt.

Thank you,
Kelli

Kelli McCune, Project Director, Conservation Incentives
98 Battery Street, Suite 302, San Francisco, CA 94111
415-977-0380 ext. 336
www.suscon.org



June 22, 2020

Matthew T. Keeling, Executive Officer
 Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 93401

RE: Sustainable Conservation's Comments on the February 21, 2020 Draft General Waste Discharge Requirements for Discharges from Irrigated Lands

Dear Executive Officer Keeling:

EY-1 Sustainable Conservation is grateful for the opportunity to provide comments on the Central Coast Regional Water Quality Control Board's (Board) February 21, 2020 Draft General Waste Discharge Requirements for Discharges from Irrigated Lands (draft Ag Order). Sustainable Conservation is a conservation organization that takes a pragmatic, results-oriented approach to achieving environmental goals in ways that are just and make economic sense, based on solid science and real collaboration with private- and public-sector partners.

EY-2 We have been working with berry and vegetable growers, UC Cooperative Extension, Resource Conservation Districts, NRCS, and others in the Central Coast region for approximately seven years to develop and implement a measure-to-manage approach to support growers' efforts to achieve irrigation and nitrogen use efficiency. We have also been working to improve water quality in the San Joaquin Valley for 20 years in collaboration with the dairy industry. That work has included in-depth analysis of the efficacy and efficiency of the reporting requirements of the Central Valley Dairy General Order. This experience has provided us with valuable perspectives on a number of provisions of the draft Ag Order. Our perspective on the draft Ag Order has also benefited from spending approximately 60 hours on calls with the Board staff and other government agencies, academic researchers and monitoring experts, agricultural technical assistance providers, agricultural companies and industry representatives, environmental justice organizations, and conservation and environmental organizations over the last six months to identify convergent strategies for driving improved management.

EY-3 Sustainable Conservation strongly supports the Board's efforts to develop an Ag Order that improves water quality for communities, agriculture, and the environment on the Central Coast in a way that balances all of the needs of the region. The cost to human health and the associated disproportionate impacts born by people dependent on groundwater for drinking water are real, significant and cannot be fully captured or understood in dollar terms. The human right to safe, clean, affordable, and accessible water is fundamental and needs to be achieved. We recognize that there are short-, medium-, and long-term dimensions to addressing the degradation of the drinking water supply of communities in the Central Coast. Bottled water and other alternative water supplies are short- and medium-term options. Groundwater quality remediation must be the long-term goal, and that is where we have placed our focus.

www.suscon.org • suscon@suscon.org

SAN FRANCISCO OFFICE • 98 Battery Street, Suite 302 • San Francisco, CA 94111 • 415-977-0380

MODESTO OFFICE • 201 Needham Street • Modesto, CA 95354 • 209-576-7729



- EY-4 Human well-being is supported by clean water and a healthy environment, and also by a reliable food supply and a robust economy. The Central Coast needs a healthy agricultural sector engaged in sustainable practices that provides employment that truly benefits the material security and overall well-being of workers and communities, produces the fruits, vegetables and other crops essential to all of our well-being, and stewards the extraordinary natural and agricultural resources of the region.
- EY-5 In everything it undertakes, Sustainable Conservation believes strongly in focusing on the problem that needs to be solved and getting it done. We have seen repeatedly how – despite good intentions – duplicative, complicated, and time-consuming regulatory requirements and processes impede the achievement of the very environmental goals that the regulations were created to further. Too often, reporting requirements multiply with insufficient consideration of either the feasibility of meeting them or whether they provide information that is of actual use to either the regulators or the regulated entities.
- EY-6 Sustainable Conservation’s comments on the draft Ag Order focus on the water quality objective of minimizing nitrate discharges to groundwater. In order to frame our specific comments on the draft Ag Order we have developed the following two principles, grounded in the above concerns and considerations, as standards by which to evaluate the relative success or failure of the Order’s data collection and analysis provisions in contributing to the achievement of the fundamental goal of **effective** water quality regulation:
- Data collection and analysis needs to be *meaningful and efficient* so that it can inform **farmers' management decisions** that lead to real improvements during current and future crop cycles;
 - Data collection and analysis needs to be *meaningful and efficient* so that it can inform the **Board** on the effectiveness of actions taken to improve environmental conditions within identified timelines.
- EY-7 **PRINCIPLE #1:** Data collection and analysis needs to be *meaningful and efficient* so that they can inform **farmers' management decisions** that lead to real improvements during current and future crop cycles.
- EY-8 We used the following questions as criteria to evaluate how well the draft Ag Order meets this principle for farmers’ management decisions:
- **Feasible:** Are required data from growers feasible to collect now or in the near future?
 - **Meaningful:** Will data collected be sufficiently meaningful to growers to positively inform their management decisions?
 - **Collaborative approach:** Is collaboration being considered and incentivized to support growers with education, planning, technical assistance, management practice implementation, and results review?



EY-8 cont.	<p>Our application of the above criteria to the draft Ag Order has left us unsure if the data collection and analysis requirements will be sufficiently <u>meaningful</u> to growers to inform and drive improved management decisions. Our detailed comments below focus on the need to expand the Nitrogen Removed variables that can be added to an A-R compliance pathway calculation to more fully capture the processes affecting the nitrogen mass balance of growing a crop so that it becomes abundantly clear to growers how they can better manage nutrients for regulatory compliance and improved groundwater quality.</p>
EY-9	<p><u>Response to Nitrogen Discharge Timeline with Targets and Limits (Draft Ag Order 4.0 page 61)</u></p> <p>We approached our examination of this section of the draft Ag Order with three basic premises in mind:</p> <ul style="list-style-type: none"> • There are a number of factors that can be considered in order for a grower to arrive at an accurate understanding of nitrogen use efficiency. • On-farm water and nitrogen use measurement and comparison to crop demand are an important part of a farmer's record-keeping. • Growers need metrics to understand and track the efficiency of inputs/resources and use the information to make management changes over time.
EY-10	<p>We generally support the ratcheting-down process as a means to drive change and achieve greater efficiency and improved water quality. We believe that quantifiable goals and anonymous peer comparison should be developed and employed to motivate innovation and positive competition to move nitrogen application rates toward greater efficiency to achieve long-term goals of improving groundwater quality.</p>
EY-11	<p>We have several issues we would like to raise concerning the calculation of Nitrogen Applied and Nitrogen Removed (A-R) reporting. On the Applied (A) side of the A-R equation, we request that the draft Ag Order be revised so that the required reporting of Applied Nitrogen from irrigation water is only counted for the amount of water equal to the crop's evapotranspiration demand for water (M Cahn. 2020. Personal communication.).</p>
EY-12	<p>We support the recognition of the value of compost application to immobilize nitrogen; however, we recommend that the compost factor that is in the current draft Ag Order be revised so that the Board does not inadvertently discourage compost by including it on the Applied side of the equation. According to the research that Richard Smith and others have conducted (see Appendix 1: Summary of non-leaching fates of applied nitrogen in vegetable cropping systems) the compost on the Central Coast is quite low in nitrogen content. It would make more sense to move this factor to the Removed side of the equation to reflect the beneficial process of nitrogen immobilization provided by high carbon compost.</p>



EY-13	<p>On the Removed (R) side of the equation, we are concerned that growers are not being presented with a sufficient range of readily available R options to address the multiple pathways that excess nitrogen can take in the environment. The draft Ag Order provides only three specific options: nitrogen removed through harvest (R_{HARV}), sequestration (R_{SEQ}), and treatment methods such as bioreactors (R_{TREAT}). All other nitrogen removal processes are bunched together under R_{OTHER}, which requires the grower to quantify and report the removal and maintain records detailing how they calculated the removal by each particular process.</p>
EY-14	<p>We recommend that the Board develop standardized Nitrogen Removed factors/coefficients and their associated calculations that all reporting farmers can use rather than waiting for individual farmers to invest in separate proposals for inclusion of individual R_{OTHER} processes. The Board should broaden the standardized Nitrogen Removed processes in the compliance calculations to include the following (listed in descending order of impact on preventing nitrate leaching as determined by Richard Smith; cited work in Appendix 1: Summary of non-leaching fates of applied nitrogen in vegetable cropping systems):</p> <ul style="list-style-type: none"> • $R_{COVER CROPS}$: Winter cover crops capture nitrate-N that would otherwise be leached during winter fallow; • $R_{HIGH C:N COMPOST}$: Ties up pool of nitrate in soil in the fall and reduces nitrate leaching over the winter; • R_{OM}: Soil organic matter building practices that increase soil carbon and nitrogen storage in the soil; • $R_{DENITRIFICATION BEDS}$: Gaseous nitrogen loss to atmosphere from denitrification from tail water treatment beds; • R_{GAS}: Gaseous N losses to atmosphere from denitrification in production fields (depends on soil type and irrigation system) and volatilization from crop residues (typically small); • $R_{MITIGATION}$: Vadose zone nitrate mitigation through microbial and/or chemical transformation.
EY-15	<p>Developing standardized Nitrogen Removed factors will provide valuable information that growers can use to better manage nutrients for regulatory compliance and improved groundwater quality. As an added benefit, this will create positive reinforcement for the use of improved farm management practices, such as increasing organic matter amendments and cover crops, to support soil health, reduce runoff, retain water in the soil profile, build carbon content in the soil, etc. It would also provide the Board staff with time savings in reviewing multiple proposals and create consistency across reports, which will facilitate analysis at the regional scale and require less effort to assess individual reports.</p>
EY-16	<p>In addition to the immediate development and use of standardized Nitrogen Removed factors/coefficients based on existing research and data, we recommend that the Board support a research needs and cost analysis to help define Nitrogen Removed processes that are not currently available for various soil/climate/crop combinations commonly found in the region. The research analysis would define the process for compiling existing research, prioritizing research and data needs, and establishing a technical review process for finalizing Nitrogen Removed factors/coefficients and calculations to better define values for nitrogen removal processes. The Order should specify how the values for each of the Nitrogen Removed factors</p>



EY-16
cont.

will be approved by the Regional Board for reporting by growers as the information is developed and updated with new science.

EY-17

While we support more options being readily available to growers to demonstrate compliance, we also want the Ag Order to remain clear that they can still choose the simplest possible method for adequate calculation, such as A-R where the only R in their calculation is R_{HARV} .

Response to Planning, Education, Management Practices (Draft Ag Order pages 21 – 22)

EY-18

We support holistic farm planning that results in growers determining which nutrient and water management practices are best suited to their operations and using data and other decision-support information to evaluate effects and make adjustments over time. A holistic approach is necessary in order to adequately address the complexities of irrigation and nutrient management in dynamic living systems.

Those complexities mean that farm planning, changing management practices or technologies, and assessing results over time will all call for technical assistance and collaboration. We strongly support the provision of outreach, education, and technical assistance resources from non-regulatory technical assistance providers to assist growers in making management decisions that make real progress in achieving water quality objectives. This support is most effective when it is based on site-specific conditions and includes the option to receive support on an individual basis or through collaborative group efforts. We recommend that the draft Ag Order explicitly acknowledge that this part of the process is essential, takes time, and calls for sustained financial support.

EY-19

Total Nitrogen Applied Monitoring and Reporting and Irrigation and Nutrient Management Plan Summary Report Monitoring and Reporting (Attachment B: Monitoring and Reporting Program pages 4-15)

The current draft Ag Order requires a very large number of plans and data to be reported to the Board. We recognize that the Board staff believes that these reports are required by precedents established by the East San Joaquin Irrigated Lands Regulatory Program General Order ([Draft Order Attachment A: Findings, pages 7-9 and 25-78](#)). Our concern is based on our experience of evaluating annual reports required by the Central Valley Dairy General Order. We found that each annual report used one of several different calculations, units, and definitions for what should have been the same reported results, with little consistency between reports. That created an insurmountable problem when attempting to analyze performance of the dairies as a whole, which is essential to tracking and monitoring regional water quality issues.

EY-20

We strongly recommend that Board staff re-examine all of these plans and data requirements and consolidate, simplify, and harmonize them to the maximum extent possible. Doing so will enable growers to spend less time and money reporting and more on doing what needs to be done to improve water quality. It will also help ensure that Board staff will have the time and resources to adequately assess meaningful data so that the Board can be kept accurately informed of the progress being made in achieving water quality objectives, and growers can be kept accurately apprised of their actual progress in compliance with water quality goals.



EY-21 | **PRINCIPLE #2:** Data collection and analysis needs to be *meaningful and efficient* so that they can accurately inform the **Board** on the effectiveness of a grower's actions within identified timelines.

EY-22 | We used the following questions as criteria to evaluate how well the draft Ag Order achieves this principle:

- **Feasible:** Will the Ag Order's monitoring and reporting requirements be feasible for growers to implement so that they provide the Board with the information it needs?
- **Effective:** Will monitoring and reporting be effective to inform the Board about progress toward achieving water quality objectives?
- **Informative:** Will the Board's analysis of reported information be able to inform the Board's understanding of cause-effect relationship between change in land management and resulting ambient water quality condition to take targeted action?
- **Meaningful:** Will the collected data/information be meaningful to public beneficiaries?
- **Results Analysis:** Will the Board be able to make a transparent and logical case for demonstrating environmental improvement based on reported information?

EY-23 | Our evaluation of how well the draft Ag Order meets the standards established by this principle is based on two premises:

- The Board is best served if data collection and analysis is locally based, so that sub-watersheds can identify actions, treatments, and results that are appropriate for their local conditions;
- Sub-watershed-appropriate solutions need to be understood in the context of their contribution to improving ambient groundwater quality.

EY-24 | Our examination of the draft Ag Order has led us to conclude that it does not meet the feasibility criterion for this principle. Specifically, the ranch-level groundwater discharge monitoring requirement is not feasible in its current form, for reasons set forth below.

EY-25 | More generally, the draft Ag Order does not provide any clarity on how the required information will be used by the Board and staff to achieve the goal of minimizing nitrate to groundwater by 2050. Therefore, it does not meet our criteria for effective, informative meaningful data collection and analysis. We request that the Board staff describe in detail how they will use reported information to evaluate the effectiveness of grower-reported management in achieving desired groundwater quality objectives.



Response to Groundwater Quality Monitoring and Reporting (Attachment B: Monitoring and Reporting Program pages 4-21)

EY-26 Attachment B: Monitoring and Reporting Program, p. 20-21 states that "[w]hen required by the Executive Officer based on groundwater quality data or exceedance of the nitrogen discharge targets or limits, Dischargers must conduct ranch-level groundwater discharge monitoring..." We find the reference to "groundwater quality data" to be too general to make this a feasible requirement. Upon what basis other than the specified "exceedance of the nitrogen discharge target or limits" would the Executive Officer require this degree of monitoring? How will the staff determine which particular groundwater quality data are associated with/due to a specific grower? We request that the Board provide specific detail and guidance so that growers will have uniformly clear and measurable standards to meet in order to avoid the significant expense of ranch-level groundwater monitoring.

EY-27 We recognize that [Attachment A: Findings pages 116-123](#) describes the studies and transport timeframes of some of the aquifers in the Central Coast region to support the timeline and nitrogen discharge targets and limits in Table C. 1-2 on [page 61 in the Draft Order](#). However, the draft Ag Order does not describe what the Board staff will do between the adoption of the Ag Order and 2050 to inform the public beneficiaries and Dischargers on what progress is being made.

EY-28 The draft Ag Order also makes no reference to how new information, research, science, and technology will be used to monitor and evaluate progress towards water quality goals, improve current understandings of how nitrate discharge targets/limits will affect groundwater quality, and adaptively manage regulatory requirements.

EY-29 The Ag Order needs to include a process for the Board to develop an adaptive management approach to using reported information to better understand the relationship between land management changes and the resulting ambient groundwater quality condition that is specific to the aquifers in the region. The hydro-geological processes that mediate the effect of agricultural nitrate discharge on monitored groundwater quality are complex and spatially varied. There are scientific methods that can help with improving our collective understanding other than solely depending on a static understanding of the transport timelines based on the studies cited in Attachment A. A results analysis process should be identified in advance in the Order to ensure the appropriate information is collected and can be used to demonstrate environmental improvement in a transparent and logical manner. One effective approach to achieve meaningful results analysis is to use dynamic groundwater models to predict how groundwater quality is expected to change as a result of changing land management and discharge targets before those changes can be detected in monitoring wells. A transport/mass balance model with accurate hydrodynamics between land and water management and resulting effects on groundwater quality can help the Board evaluate what level of reduced loading is possible and when and where it can be anticipated from a variety of management changes.



- EY-30 | An adaptive management effectiveness evaluation model could also be used with growers to test sub-basin scenarios of future management changes to predict effects on groundwater quality. It could also be used to model future water quality for domestic wells and shallow wells for communities in terms of nitrate risk potential.
- EY-31 | We recommend that the Board support the establishment of a process for developing an adaptive management effectiveness evaluation tool and a process for incorporating the results into future evaluation and modification of Ag Order nitrogen discharge goals (targets and/or limits). There are many opportunities to coordinate this effort with the groundwater models that are currently being developed on the Central Coast to support compliance with the Sustainable Groundwater Management Act (SGMA). Board support of increased integration of a water quality management tool with sustainable groundwater management will also leverage scarce State and local resources.
- EY-32 | **Specific response to [Attachment B: Monitoring and Reporting Program](#) (pages 20-21)** states that “[d]ischargers must calculate and report the evapotranspiration for each specific crop. Acceptable methods include, but are not limited to, using reference evapotranspiration data from a local weather station (e.g., California Irrigation Management Information System (CIMIS) or an on-farm station) with a crop coefficient conversion value, and direct measurement.”
- The Department of Water Resources (DWR) determines if weather stations are scientifically sound to provide reference evapotranspiration data on the publicly available California Irrigation Management Information System ([CIMIS](#)), and approves those stations that meet that requirement. A number of weather stations across the region are not reporting reference evapotranspiration. For example, in the Salinas Valley, DWR has said that the siting of the Castroville weather station (#19) was incorrect and won’t post reference evapotranspiration data being collected from this station. DWR is also not posting reference evapotranspiration data from the North Salinas weather station (#116), although it is active. The Gonzales weather station (#115) is inactive.
- Given that the draft Ag Order requires reporting of crop-specific evapotranspiration data and offers CIMIS as one of the acceptable methods, we recommend that the Board work with DWR staff to resolve these issues so that these CIMIS sites can be used now and as reference sites to validate other evolving public and private remote sensing evapotranspiration technologies so that all growers in the region have access to reliable reference data that can support water use efficiency efforts and support efficient compliance with proposed reporting for Ag Order 4.0.



Conclusion

EY-33

Sustainable Conservation recognizes the urgent need to improve water quality for communities, agriculture, and the environment in the Central Coast region. We also recognize the Board's fundamental duty to develop and enact an Ag Order that meets the requirements established by state and federal statutes, court decisions, and the precedents set forth in the East San Joaquin Irrigated Lands Regulatory Program General Order. We believe strongly that it is essential to find the means to fulfill these requirements and achieve real and lasting water quality improvement while also providing a process for grower compliance that supports an economically vital and evolving Central Coast agricultural industry.

EY-34

We believe that a successful Ag Order will need to accomplish **all** of these goals:

EY-35

EY-36

EY-37

- The Ag Order needs to be a catalyst for real, achievable change that improves water quality while giving agriculture a feasible path forward;
- Reporting requirements must efficiently provide the information that farmers need for improved management and the Board needs for tracking the effect of on groundwater quality;
- Establishing a process for adaptive management of targets/limits as new data and technology evolves will encourage innovation and needs to be done; and
- Working together produces viable solutions and must be encouraged and incentivized.

EY-38

Sustainable Conservation thanks you for the opportunity to provide comments. **We are** committed to continuing to work in coordination with the Board, agriculture, environmental justice advocates, and our fellow conservation organizations to support the development of an Ag Order that effectively restores and protects water quality for the communities and environment of the Central Coast while also providing farmers with the tools they need to both play their part in achieving those goals and continue to thrive.

Sincerely,

J. Stacey Sullivan
Policy Director



Appendix 1: Summary of non-leaching fates of applied nitrogen in vegetable cropping systems

EY-39

<i>Practice</i>	<i>Estimated range in N removal/reduction in leaching hazard</i>	<i>Concept</i>	<i>References</i>
Cover crops	100-200 lbs N/A	Winter grown CC capture nitrate-N that would otherwise be leached during winter fallow. Louise Jackson's 2000 study showed that >80% of CC N was in soil organic matter or taken up by subsequent lettuce crop the following year. Including $R_{COVER\ CROP}$ as one of the recognized R factors for the A-R equation would incentivize their use.	<ul style="list-style-type: none"> Gaskell, M., R. Smith, L. Jackson, and T. Hartz. 2011. Soil nitrogen fertility management. In Cover Cropping for Vegetable Production. UCANR 3517. Jackson, L.E., L.J. Wyland, and L.J. Stivers. 1993. Winter cover crops to minimize nitrate loss in intensive lettuce production. J Agric Sci 121:55-62. Jackson, L., L. Stivers, B. Warden, and K. Tanji. 1994. Crop nitrogen utilization and soil nitrate loss in a lettuce field. Fertilizer Research 37: 93-105. Jackson, L. 2000. Fates and Losses of Nitrogen from a Nitrogen-15-Labeled Cover Crop in an Intensively Managed Vegetable System. Soil Sci. Soc. Am. J. 64:1404–1412.
High C compost	112-155 lbs N/A (ground almond shells; currently testing locally sourced green waste)	Available C in compost stimulates soil microbes to utilize the pool of soil nitrate-N for growth. It can substantially reduce nitrate leaching during winter fallow. The C factor in $C \times A_{COMP}$ calculation becomes negative with this practice or include as R_{SEQ} .	<ul style="list-style-type: none"> Smith, R., J. Muramoto, L. Tourte, A. Haffa, F. Melton, and P. Love. 2019. Immobilization of nitrate in fallow winter vegetable production beds. Salinas Valley Agriculture Blog: Jan. 3. https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=29071



EY-39
cont.

<i>Practice</i>	<i>Estimated range in N removal/reduction in leaching hazard</i>	<i>Concept</i>	<i>References</i>
Denitrification from production fields	1.1 to 1.3 lbs N ₂ O-N/A (drip irrigation; sandy soil; single crop/year). 17.9 to 37.2 lbs N ₂ O-N/A (furrow irrigation; heavier soil; multiple crops/year)	Fertilizer N is converted to dinitrogen and nitrous oxide gasses by soil microbes. The magnitude ranges from negligible to moderate depending on soil type and irrigation method – ROTHER.	<ul style="list-style-type: none"> • Horwath, W. 2012. Assessment of baseline nitrous oxide emissions from California cropping systems. Final Report to California Air Resources Board. • Ryden, J.C. and Lund, L.J. 1980. Nature and extent of directly measured denitrification losses from some irrigated vegetable crop production units. Soil Science Society of America Journal 44: 505-511.
Denitrification bed reactors (treatment of leachate captured in tile drains)	Tile water nitrate-N concentration reduced by 8-10 ppm/day; carbon enrichment with soluble carbon greatly increased the quantity of nitrate-N removed from water	Nitrate is converted to nitrogen and nitrous oxide gasses by microbes in the bed reactors (R _{TREAT}). Nitrate conversion greatly increased by addition of soluble carbon (e.g. glycerol or methanol). With sufficient soluble carbon, all nitrate-N can be converted a gas.	<ul style="list-style-type: none"> • Hartz, T.K., R.F. Smith, M.D. Cahn, T. Bottoms, Sebastian Castro Bustamanti, L. Tourte, K. Johnson, and L. Coletti. 2017. Wood chip denitrification bioreactors can reduce nitrate in tile drainage. California Agriculture 71(1):41-47.



EY-39
cont.

<i>Practice</i>	<i>Estimated range in N removal/reduction in leaching hazard</i>	<i>Concept</i>	<i>References</i>
Volatilization – crop residue	Estimates depend on the N content of the material and how long it remains on the soil surface (once it is incorporated volatilization stops). Mohr study estimated 3-4%.	The quantity of N lost by ammonia volatilization from crop residues sitting on the soil surface (ROTHER) becomes greater the longer that it sits on the soil surface.	<ul style="list-style-type: none"> • Glasener, K. M. and Palm, C. A. 1995. Ammonia volatilization from tropical legume mulches and green manures on unlimed and limed soils. <i>Plant and Soil</i> 177: 33–41. • Mohr, R.M., H.H. Janzen, and E.H. Entz. 1997. Nitrogen dynamics under greenhouse conditions as influenced by method of alfalfa termination. 1 Volatile N losses. <i>Canadian Journal of Soil Science</i> 78:253-259. • Whitehead, D. C., D. R. Lockyer, and N. Raistrick. 1988. The volatilization of ammonia from perennial ryegrass during decomposition, drying and induced senescence. <i>Annals of Botany</i> 61: 567–571.

Response to Comment EY-1

The CCWB acknowledges the commenter's background and interests.

Response to Comment EY-2

The CCWB acknowledges the commenter's background and interests.

Response to Comment EY-3

This comment is summarized and responded to in Master Response 2.1.1.

Response to Comment EY-4

The comment is noted.

Response to Comment EY-5

This comment is summarized and responded to in Master Response 2.1.4.

Response to Comment EY-6 through EY-8

This comment is summarized and responded to in the following Master Responses: 2.1.10; 2.2.1; and 2.4.7.

Response to Comment EY-9

This comment is summarized and responded to in Master Response 2.3.5.

Response to Comment EY-10

This comment is summarized and responded to in Master Response 2.3.10.

Response to Comment EY-11 through EY-13

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EY-14

This comment is summarized and responded to in Master Response 2.3.4.

Response to Comment EY-15

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EY-16

This comment is summarized and responded to in Master Response 2.3.4.

Response to Comment EY-17

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EY-18

This comment is summarized and responded to in the following Master Responses: 2.9.8; 2.1.15; 2.1.4; 2.2.1; 2.2.3; 2.3.5; 2.5.10; and 2.5.11.

Response to Comment EY-19

This comment is summarized and responded to in the following Master Responses: 2.1.5 and 2.1.4.

Response to Comment EY-20

This comment is summarized and responded to in the following Master Responses: 2.9.8; 2.1.5; and 2.1.4.

Response to Comment EY-21 through EY-23

This comment is summarized and responded to in Master Response 2.1.5.

Response to Comment EY-24

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.3.9; 2.3.3; 2.4.2; 2.5.5; 2.5.11; 2.5.2; 2.5.3; 2.6.6; and 2.7.3.

Response to Comment EY-25

This comment is summarized and responded to in the following Master Responses: 2.1.8; 2.1.10; 2.1.11; 2.3.7; 2.3.3; and 2.3.4.

Response to Comment EY-26

This comment is summarized and responded to in Master Response 2.4.2.

Response to Comment EY-27

This comment is summarized and responded to in Master Response 2.2.1.

Response to Comment EY-28

This comment is summarized and responded to in Master Response 2.1.11.

Response to Comment EY-29 through EY-30

This comment is summarized and responded to in Master Response 2.2.3.

Response to Comment EY-31

This comment is noted.

Response to Comment EY-32

This comment is summarized and responded to in Master Response 2.3.9.

Response to Comment EY-33

Thank you for your comment.

Response to Comment EY-34

This comment is noted.

Response to Comment EY-35

This comment is summarized and responded to in Master Response 2.3.1.

Response to Comment EY-36

This comment is summarized and responded to in Master Response 2.1.5.

Response to Comment EY-37

This comment is summarized and responded to in Master Response 2.1.10.

Response to Comment EY-38

Thank you for your comment.

Response to Comment EY-39

This comment is noted.

**Letter EZ: Richard Smith, University of California Cooperative Extension, Monterey County
(June 22, 2020)****Letter EZ**

From: [Richard Smith](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 10:22:56 AM
Attachments: [20Ag Order Comments Richard Smith PDF.pdf](#)

EXTERNAL:

Greetings. Attached are my comments to on the Draft Ag Order 4.0.
Please let me know if you have any questions or comments about them.
Thank you for your attention to this matter.

Richard Smith



University of California
Agriculture and Natural Resources

Matthew T. Keeling
Executive Officer
Region 3 Water Quality Control Board

June 22, 2020

Dear Mr. Keeling,

Cooperative Extension – Monterey County



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EZ-1

I am commenting on the specific sections of the proposed Ag Order 4.0 shown below. I have been a Farm Advisor with the University of California Cooperative Extension for 32 years working with the vegetable industry on the Central Coast. During this time, I have conducted numerous research projects on improving the nitrogen use efficiency of vegetable crop production. This research has been conducted as part of a team of researchers from UC (Michael Cahn, Tim Hartz, Louise Jackson, Joji Muramoto and Daniel Geisseler) as well as California State University (Arlene Haffa and Forrest Melton). Research projects have included evaluations of slow and controlled release fertilizers, use of cover crops to reduce nitrate leaching, use of nitrate in irrigation water to fertilize crops, irrigation water use efficiency to improve nitrogen use efficiency, the impact of crop rotations on nitrate leaching and the use of high carbon compost to reduce nitrate leaching during the winter fallow period. In addition, we have conducted numerous educational meeting to help educate growers about implementation of practices that can reduce nitrate leaching. My comments below are based on the insight that I have gained from these activities.

EZ-2

Before I give my specific comments regarding Ag Order, here is a summary of practical ways that leafy green vegetable crop growers on the Central Coast can reduce nitrate leaching and comply with the requirements of Ag Order 4.0.

- Testing residual soil nitrate levels in the soil and adjusting fertilizer applications accordingly is the most powerful tool that the growers have for affecting the A part of the A-R equation. This practice will be incentivized as the levels of N that can be applied are ratcheted down.
- Nitrogen technologies (e.g. slow and controlled release fertilizers) can improve nitrogen use efficiency in some cases and help reduce the A factor.
- Improved irrigation management to reduce nitrate leaching during the crop production season is key to maintaining nitrate in the rootzone. However, leaching fractions which are necessary to manage salts reduce the ability to always effectively reduce nitrate leaching.
- Given inevitable inefficiencies that occur with fertilizer application and irrigation water management, rotational crops such as broccoli and other cole crops have been shown to scavenge residual soil nitrate from deeper in the soil profile and return it to the soil surface where it can be made of use for further crop growth.
- Winter cover crops serve a critical role in capturing the fall pool of soil nitrate that is at risk for leaching with winter rains. High carbon compost can also play this role to some degree.
- The proposed limits on A_{fert} in later years (e.g. $< 2-300 \text{ lbs N/A}$) may not allow growers to provide sufficient levels of nitrogen that is agronomically necessary to provide the needs for economic crop production. It seems that a process such as an expert panel would be useful to vet some aspects of Ag Order 4.0 before the rules are codified.
- The R factor as described in the Ag Order is over simplified and Table 1 explains aspects of nitrate removal and should be reviewed by an expert panel before the rules are codified.

The University of California working in cooperation with Monterey County and the USDA

EZ-3	<p>Comments to Draft Ag Order 4.0:</p> <p>Appendix A. C.1. Irrigation and Nutrient Management for Groundwater Protection:</p> <p>Use of cover crops</p> <p>Paragraph 38:</p> <ol style="list-style-type: none"> 1. Cover crops should be included as an R factor ($R_{\text{cover crop}}$). Cover Crops take up 100 to 200 lbs of N/A that would otherwise be lost to nitrate leaching during the critical winter fallow period (see Table 1). However, the use of cover crops in the intensive leafy green vegetable production area of the Central Coast is limited due to economic realities such as high land rents, scheduling conflicts with cash crops in the spring and disadvantages of working wet soils in the spring. Given these realities, it would be ideal if Ag Order 4.0 could provide incentives to growers to increase the use of cover crops. If $R_{\text{cover crop}}$ was one of the standing and recognized R values, that should encourage their use as growers struggle to comply with the A-R limits. 2. The $R_{\text{cover crop}}$ factor can be included for the crop year it is grown. The fate of the cover crop N four months after they are incorporated into the soil is documented by the N₁₅ studies conducted by Louise Jackson (2000): 61% of the N from cover crops remained in the pool of soil organic N and 20% was in the lettuce crop. Nitrogen not in either of these fates would mostly be found in the pool of residual soil nitrate and can be monitored by nitrate testing that is conducted to improve management of N fertilizer applications.
EZ-4	
EZ-5	<p>Ag Order. C.1. Irrigation and Nutrient Management for Groundwater Protection:</p> <p>Compost Discount Factor</p> <p>Paragraph 40:</p> <ol style="list-style-type: none"> 1. Graveur's 2016 report serves as the basis of the proposed regulations in the Ag Order. However, her report included a wide array of composts used in the state of California. On the central coast, due to the distance to animal feeding operations in the central valley and associated trucking costs, the most common compost that is used in the Salinas and other valleys of the central coast are urban yard wastes from local cities. These materials are typically quite low in N, often ranging from 1.2 to 2.0% N. As a result, they mineralize little to no nitrogen in the first year after application (e.g. 1.0 lb N/A/year) (Hartz et al, 2000). 2. Given low application rates of urban waste compost (e.g 3.0 tons/A), the low N content mentioned above and the water content of the material, the amount of N they mineralize the first year is quite low. It is questionable if it is worth the grower's effort to account for this source of N on the reporting sheet. Here are two examples: <ol style="list-style-type: none"> a. Low N compost (2% N, 25% water, 3 tons/A application rate, 5% mineralization rate) = 4.5 lbs N/A b. Higher N compost (2.5% N, 25% water, 3 tons/A application rate, 10% mineralization rate) = 11.3 lbs N/A
EZ-6	
EZ-7	<ol style="list-style-type: none"> 3. There is evidence that the high carbon composts should not be included on the A side of the A-R equation. These composts sequester N in the soil (White et al, 2020; Lazicki et al 2020) and improve microbial cycling of nitrate-N (Bowles et al, 2015). In addition, research is underway to evaluate high C containing compost (e.g. C:N >25) to specifically tie up the pool of nitrate in winter fallow beds (Smith et al 2019). The use of high C compost has the potential to help reduce the load of nitrate-N in winter fallow beds, but more research is needed to assure that the subsequent cash crop is not damaged by low nitrate in the soil. In my mind, there are the way the $A_{\text{comp}} \times C$ concept is presented in the proposed Ag Order is too simplistic and an expert panel could further explore these issues just described.

EZ-8

4. The concept of the C factor that is proposed for use for A_{comp} would appropriately be applied to organic fertilizer to determine the net N that they release. Recently completed research projects on mineralization of N from organic fertilizers showed that the percent of initial N that was mineralized in 56 days was 41 and 61% for 4-4-2 and 12-0-0, respectively (Smith et al, 2020 and Lazicki et al 2020). The remainder of the N contained in these fertilizers is recalcitrant and releases slowly over a period of years. It is important to take the N release dynamic of organic fertilizers into consideration to not penalize organic practices in Ag Order 4.0.

Sincerely,



Richard Smith
Farm Advisor

Literature Cited:

Bowles, T.M., Hollander, A.D., Steenwerth, K., Jackson, L.E. 2015. Tightly-coupled plant-soil nitrogen cycling: Comparison of organic farms across an agricultural landscape. PLoS ONE 10(6):e0131888

Hartz, T.K., J.P. Mitchell and C. Giannini. 2000. Nitrogen and carbon mineralization dynamics of manures and compost. HortScience 35(2): 209-212.

Jackson, L. E. 2000. Fates and losses of nitrogen from a nitrogen-15-labeled cover crop in an intensively managed vegetable system. Soil Science Society of America Journal 64:1404-1412.

Lazicki, P., Geisseler, D., Lloyd, M., 2020. Nitrogen mineralization from organic amendments is variable but predictable. Journal of Environmental Quality, DOI: 10.1002/jeq1002.20030, available at <https://access.onlinelibrary.wiley.com/doi/full/10.1002/jeq2.20030>

Smith, R.F., J. Muramoto, L. Tourte, A. Haffa, F. Melton and P. Love. 2019. Immobilization of nitrate in fallow winter vegetable production beds. UCCE Monterey County Blog: <https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=29071> January 3.

Smith, R.F., M. Cahn, T.K. Hartz and D. Geisseler. 2020. Evaluation and demonstration of nitrogen management of organic vegetable production in leafy green vegetables on the Central Coast. Final Report to CDFA Fertilizer Research and Education Program. (https://www.cdfa.ca.gov/is/frep/view_v6.aspx).

White, K.E., E.B. Brennan, M.A. Cavigelli and R.F. Smith. 2020. Winter cover crops increase readily decomposable soil carbon, but compost drives total carbon during eight years of intensive, organic vegetable production in California. PLoS ONE 15(2): e0228677. <https://doi.org/10.1371/journal.pone.0228677>



University of California Agriculture and Natural Resources

Table 1. Summary of non-leaching fates of A_{fert} in vegetable cropping systems

Practice	Estimated range in N removal/reduction in leaching hazard	Concept	References
Cover crops	100-200 lbs N/A	Winter grown CC capture nitrate-N that would otherwise be leached during winter fallow. Louise Jackson's 2000 study showed that >80% of CC N was in soil organic matter or taken up by subsequent lettuce crop the following year. Including $R_{cover\ crop}$ as one of the recognized R factors for the A-R equation would offer an incentivize their use.	<ul style="list-style-type: none"> Gaskell, M., R. Smith, L. Jackson and T. Hartz. 2011. Soil nitrogen fertility management. In Cover Cropping for Vegetable Production. UCANR 3517. Jackson, L.E., L.J. Wyland and L.J. Stivers. 1993. Winter cover crops to minimize nitrate loss in intensive lettuce production. J Agric Sci 121:55-62. Jackson, L., L. Stivers, B. Warden and K. Tanji. 1994. Crop nitrogen utilization and soil nitrate loss in a lettuce field. Fertilizer Research 37: 93-105. Jackson, L. 2000. Fates and Losses of Nitrogen from a Nitrogen-15-Labeled Cover Crop in an Intensively Managed Vegetable System. Soil Sci. Soc. Am. J. 64:1404-1412 (2000).
High C compost	112-155 lbs N/A (ground almond shells; currently testing locally sourced green waste)	Available C in compost stimulates soil microbes to utilize the pool of soil nitrate-N for growth. It can substantially reduce nitrate leaching during winter fallow. The C factor in $C \times A_{comp}$ calculation becomes negative with this practice or include as R_{seq}	<ul style="list-style-type: none"> Smith, R., J. Muramoto, L. Tourte, A. Haffa, F. Melton, and P. Love. 2019. Immobilization of nitrate in fallow winter vegetable production beds. Salinas Valley Agriculture Blog: Jan. 3. https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=29071
Sequestration in organic matter	Soil management practices such as composts, cover crops and reduced tillage increase soil organic matter content and associated N sequestration.	In a long-term study conducted in Salinas, yearly applications of yard waste compost increased soil carbon storage. Practices that increase soil carbon content also accumulate storage of N at a C/N ratio of 12:1. Practices that increase soil organic matter should be incentivized.	<ul style="list-style-type: none"> White, K.E., E.B. Brennan, M.A. Cavigelli and R.F. Smith. 2020. Winter cover crops increase readily decomposable soil carbon, but compost drives total soil carbon during eight years of intensive, organic vegetable production in California. PLOS ONE 15(2): e0228677. https://doi.org/10.1371/journal.pone.0228677. Eric Brennan personal communication (regarding N storage).

EZ-9

The University of California working in cooperation with Monterey County and the USDA

Denitrification from production fields	1.1-1.3 lbs N ₂ O-N/A (drip irrigation, sandy soil, single crop/yr). 17.9-37.2 lbs N ₂ O-N/A (furrow irr., heavier soil, multiple crops/yr)	Fertilizer N is converted to dinitrogen and nitrous oxide gasses by soil microbes. The magnitude ranges from negligible to moderate depending on soil type and irrigation method – Rother	<ul style="list-style-type: none"> • Horwath, W. 2012. Assessment of baseline nitrous oxide emissions from California cropping systems. Final Report to California Air Resources Board. • Ryden, J.C., Lund, L.J., 1980. Nature and extent of directly measured denitrification losses from some irrigated vegetable crop production units. Soil Science Society of America Journal 44: 505-511.
Denitrification bed reactors (treatment of leachate captured in tile drains)	Tile water nitrate-N concentration reduced by 8-10 ppm/day; carbon enrichment with soluble carbon greatly increased the quantity of nitrate-N removed from water	Nitrate is converted to nitrogen and nitrous oxide gasses by microbes in the bed reactors (R _{treat}). Nitrate conversion greatly increased by addition of soluble carbon (e.g. glycerol or methanol). With sufficient soluble carbon, all nitrate-N can be converted a gas.	<ul style="list-style-type: none"> • Hartz, T.K., R.F. Smith, M.D. Cahn, T. Bottoms, Sebastian Castro Bustamanti, L. Tourte, K. Johnson, L. Coletti. 2017. Wood chip denitrification bioreactors can reduce nitrate in tile drainage. California Agriculture 71(1):41-47
Volatilization – crop residue	Estimates depend on the N content of the material and how long it remains on the soil surface (once it is incorporated volatilization stops). Mohr study estimated 3-4%.	The quantity of N lost by ammonia volatilization from crop residues sitting on the soil surface (R _{other}) becomes greater the longer that it sits on the soil surface.	<ul style="list-style-type: none"> • Glasener, K. M. and Palm, C. A. 1995. Ammonia volatilization from tropical legume mulches and green manures on unlimed and limed soils. Plant and Soil 177: 33-41. • Mohr, R.M., H.H. Janzen and E.H. Entz. 1997. Nitrogen dynamics under greenhouse conditions as influenced by method of alfalfa termination. 1 Volatile N losses. Canadian Journal of Soil Science 78:253-259. • Whitehead, D. C., Lockyer, D. R. and Raistrick, N. 1988. The volatilization of ammonia from perennial ryegrass during decomposition, drying and induced senescence. Annals of Botany 61: 567-571.

EZ-9
cont.

Response to Comment EZ-1

The CCWB acknowledges the commenter's background and interests.

Response to Comment EZ-2 through EZ-8

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment EZ-9

This comment is noted.

**Letter FA: Michael Cahn, University of California Cooperative Extension, Monterey County
(June 22, 2020)****Letter FA**

From: [Michael Cahn](#)
To: AqNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 6:02:48 PM
Attachments: [Letter Central Coast Regional Water Quality Control Board Cahn.docx](#)

EXTERNAL:

Dear Regional Water Quality Control Board Staff,

Attached please find my letter commenting on the draft Ag Order 4.0. Please let me know if you need this as a pdf document.

Thank you.

Michael Cahn
Irrigation and Water Resources Advisor
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Salinas Valley Agriculture Blog: ucanr.edu/blogs/SalinasValleyAgriculture/index.cfm



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June 22, 2020

Chairman Wolff
Central Coast Regional Water Board
895 Aerovista Pl., Suite 101
San Luis Obispo, CA 93401-7906

Re: Comments on Draft Ag Order 4.0

Dear Chairman Wolff,

FA-1

Thank you for the opportunity to comment on the Draft Ag Order 4.0. I serve as a UC Cooperative Farm Advisor with responsibilities for irrigation and water resource management for Monterey, Santa Cruz, and San Benito Counties. I have been in this position since 2001 and I have worked as a farm advisor for 25 years. In collaboration with colleagues Richard Smith and Tim Hartz, my work on the Central Coast has focused on research and educational outreach on efficient use of irrigation water and nutrients as well as practices to mitigate water quality impairments from agriculture. In addition to the many extension articles and guidelines my colleagues and I have written to address improving water and nitrogen management in vegetables and berries, we also developed the online irrigation and nutrient management decision support tool, CropManage. This online software, cited in Attachment A of the draft order (Section C.1), provides growers with an easy-to-use platform for estimating water and nitrogen needs of their crops. In regard to the current draft Ag Order 4.0 for the Central Coast region, I would like to offer several comments that I hope can improve the implementation of the proposed water quality regulations.

FA-2

1. The calculation for estimating nitrogen applied from irrigation water (A_{irr}) should be based on Crop ET.

FA-3

2. Discharge limits for applied minus removed nitrogen (A-R) proposed after 2030 are not agronomically achievable for double cropped vegetable systems and would likely lead to yield losses.

FA-4

3. The A-R limit of 50 lbs N/acre proposed for 2050 is likely a lower target than necessary to bring water quality back to drinking water standards in many areas of the Central Coast.

FA-5

4. UC Cooperative Extension will not be able to sustain the online CropManage irrigation and nutrient management decision support tool without funding.

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FA-5
cont.

The calculation for estimating nitrogen applied from irrigation water (A_{irr}) should be based on Crop ET.

FA-6

One partial solution for remediating nitrate in groundwater is for growers to credit the nitrogen applied in high nitrate irrigation water in their fertilizer budgets. However, including A_{irr} as calculated in the draft order to adjust fertilizer application limits would likely lead to the unintended consequence of growers avoiding irrigating with high nitrate water sources. Where growers have multiple wells on a ranch, they may shift pumping to low nitrate wells or potentially drill deeper wells that have a low nitrate concentration. They may also lease fields with low nitrate wells.

FA-7

Growers would have several reasons to pursue strategies to utilize low nitrate water. First, calculating the nitrate contribution for each irrigation event complicates determining their fertilizer budget since they are unsure about which wells will be used to irrigate their crops. Because mid-size vegetable farming operations manage several hundred plantings, there is a significant logistical challenge to estimating the amount of nitrogen to credit from water that may be blended from multiple wells. Secondly, much of the water applied to the crop is for preirrigation, needed for conducting tillage operations and for establishing seeded and transplanted vegetables. Water use during these periods is before the crop is planted or when N and water uptake is minimal.

FA-8

The field trials conducted by Cahn et al. (2017) which demonstrated that nitrate in irrigation water has fertilizer value were done after crop establishment using drip in vegetables irrigated twice per week. This was the period when crop N uptake and water use was highest. For crops requiring irrigation with sprinklers, such as high-density leafy greens, irrigating twice per week is not economically feasible, and would create microclimatic conditions that would promote foliar diseases. There have been no similar studies that have focused on how much nitrogen to credit from water when using sprinkler or furrow irrigation for vegetable production.

FA-9

Although growers may need to report $A_{fert} + A_{irr} - R$ for estimating potential nitrate loading to the underlying aquifers, adjustments to fertilizer applications limits based on a calculation of A_{irr} should consider the ET demand of the crop since this is likely the maximum amount of nitrogen that growers can credit as fertilizer N to their crops:

$$A_{irrET} (\text{lbs N/acre}) = \text{Evapotranspiration of crop (inches)} \times \text{N concentration of water (ppm)} \times 0.227$$

Since growers may be required to estimate ET of their crops as part of the INMP summary report in the proposed Ag Order (Attachment A), the ET value will not be an extra calculation. CropManage software (cropmanage.ucanr.edu) also offers growers a convenient way to calculate crop ET on a field by field basis for most vegetable crops.

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- FA-9 ↑
cont. ↑
- FA-10 ↑
- FA-11 ↑
- FA-12 ↑
- FA-13 ↑
- FA-14 ↓
- The software can also assist growers in crediting the nitrate in their irrigation water as fertilizer.
- Although using ET in the A_{irr} calculation reduces the N credited in the irrigation water, growers would still need to implement practices to utilize the nitrate in their irrigation water if they hope to meet the A-R nitrogen discharge limits proposed in the Ag Order.
- Discharge limits for A-R proposed after 2030 would likely lead to yield losses for double cropped vegetable production.**
- If an objective of the Agriculture Order 4.0 is for growers to significantly reduce fertilizer N applications during the next 10 years, then nitrogen discharge limits should be attainable using current best management practices. Limiting A-R to less than 300 lbs N/acre proposed after 2030 in the draft Ag Order is currently agronomically unrealistic for many double cropped vegetables. This is because the nitrogen requirements for attaining current yields and quality of most vegetable crops produced on the central coast are approximately twice the amount of N removed in harvested product. Lettuce, for example, needs to uptake 120 to 150 lbs N/acre to reach commercial yield and quality standards, but only 60 to 70 lbs N/acre are removed in the harvested product. If growers do not supply their vegetable crops with the required amount of nitrogen, either yield, quality or both would suffer and the crop may not be harvestable, causing an economic loss for the grower and resulting in no removal of nitrogen (R value of 0). Though growers can utilize the residual soil N from incorporated crop residues and nitrate in the irrigation water to lessen the need for fertilizer nitrogen, field trials in commercial fields conducted by UC Cooperative Extension have shown that more fertilizer N is needed than would be allowed in the proposed Ag Order after 2030.
- Table 1 shows the A-R calculations for two vegetable crops (lettuce and celery) grown sequentially during the same season. This example assumes that the irrigation water has a concentration of nitrate of 20 ppm N, approximately the average concentration in wells in the vegetable producing regions of the Central Coast. Nitrogen removed by harvest (143 lbs N/acre for two crops) is estimated from typical yields and preliminary crop removal coefficients developed through past UC research trials. Using best management practices that would credit N in the irrigation water and residual soil nitrate, a grower would be challenged to achieve commercial production of two vegetable crops applying less than 325 lbs N/acre of fertilizer over the season. In this example A-R would equal 297 lbs N/acre.
- Note that the amount of N fertilizer applied in this example is significantly less than the values reported by most of farming operations to the CCRWQCB for lettuce and celery. For example in 2017 approximately half of the growing operations reported applying more than 175 lbs of N/acre for lettuce (Figure 1) and more than 250 lbs of N/acre for

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FA-14
cont. ↑
celery (Figure 2) or a seasonal total of more than 425 lbs N/acre. Compared to current practices, growers who achieved the A-R limit of 300 lbs N/acre would be demonstrating that they significantly reduced the loading of new nitrate (N from fertilizer inputs) to the aquifer. Nitrate loading contributed from fertilizer in this scenario is less than 200 lbs N/acre/year ($325 (A_{fert}) - 143(R) = 182$ lbs N/acre/year).

FA-15 ↑
To achieve the proposed 200 lbs N/acre/year target for A-R in 2030 most growers would need to reduce the number of vegetable crops they produce per acre per year. Without alternative commodities that would provide similar income, this target would likely cause significant economic losses for most vegetable farming operations.

FA-16 ↑
Setting A-R discharge targets that are agronomically feasible to achieve through the implementation of best management practices would significantly reduce nitrate loading to the aquifer compared to current practices and would be a better approach than setting targets that are biologically impossible for growers to accomplish.

Table 1. A-R estimate for a lettuce celery rotation following best nitrogen and water management practices.

	crop 1	crop 2	
	romaine	celery	Seasonal
Applied N ($A_{fert} + A_{irr}$)	lettuce		Total
Applied fertilizer N (lbs N/acre)	100	225	325
Applied N in water (lbs N/acre)	37	78	115
water applied (inches)	8	17	
nitrate concentration of water (ppm)	20	20	
Total Applied N (lbs N/acre)	137	303	440
Removed N			
Fresh Yield (lbs/acre)	30,000	66,000	
N removal coefficient	0.00198	0.00126	
Total N removed (lbs N/acre)	59	83	143
A-R (lbs N/acre)			297

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FA-18

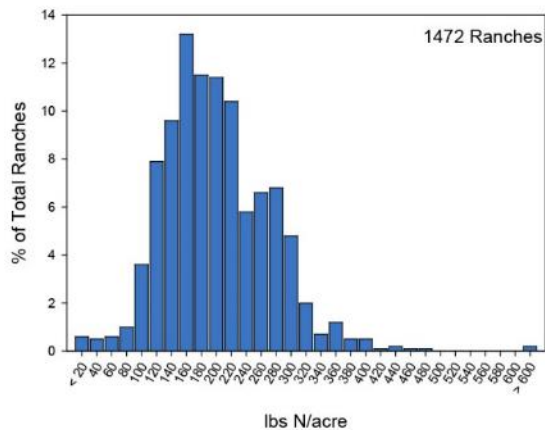


Figure 1. Fertilizer nitrogen applied to head lettuce reported by growers to the CCRWQCB in 2017.

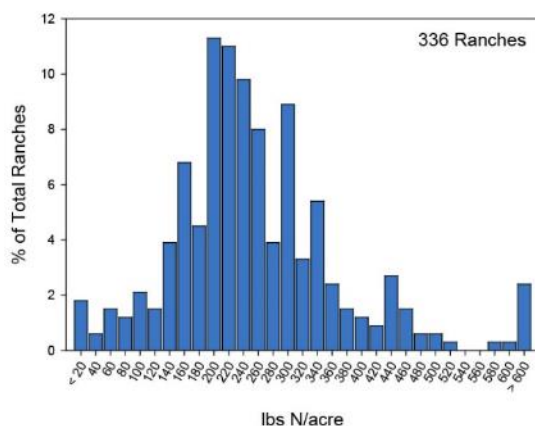


Figure 2. Fertilizer nitrogen applied to celery reported by growers to the CCRWQCB in 2017.

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FA-19 | **The A-R limit of 50 lbs N/acre proposed for 2050 is likely a lower target than necessary to bring water quality back to drinking water standards in many areas of the Central Coast.**

FA-20 | The lower limit A-R should be based on the outcomes of hydrologic studies and models rather than a simplistic estimate of nitrate leaching. The rationale for the A-R limit of 50 lbs N/acre as outlined in the draft Order is based on an estimate of percolation directly from overlying farmed land. The limit does not consider aquifer recharge from clean water (low nitrate) draining into the valley from land outside of agricultural boundaries. The watershed for the Salinas Valley, for example, is much larger than the valley bottom where most farming takes place. Storm runoff from the entire watershed drains from tributaries and rivers into the valley and most of the percolation into the aquifer occurs in the valley bottom. The Monterey County Water Resources Agency (2015) estimated that on average 504,000 acre-ft of water annually inflows into the Salinas Valley basin of which 50% is from stream recharge, which is presumably clean (low nitrate) water. This water would likely dilute nitrate in the aquifer in some areas of the basin.

FA-21 | The discharge limit of 50 lbs of N/acre does not consider that variation in land use would also result in different loading rates of N in different areas of a watershed. Zones where land use is a mix of vineyards and vegetable production would have less impact on the nitrate concentration of the underlying aquifer than in areas dominated by vegetable farms.

FA-22 | Considering the complexity of the hydrological processes involved with groundwater, setting a minimum A-R target for 30 years in the future that will be impossible for most growing operations to achieve seems unwise. It would be prudent to determine this limit after a team of experts conduct groundwater modeling studies and consider allowing these limits to vary to account for the regional differences in hydrogeology and mixture of crops in a sub-watershed.

FA-23 | **UC Cooperative Extension will not be able to sustain the online CropManage irrigation and nutrient management decision support tool without funding.**

FA-24 | For most vegetable growing operations to achieve the nitrogen discharge targets outlined in the proposed AgOrder, they will need to implement practices that will optimize nutrient and water management for the site-specific conditions of their crops. The CropManage online decision support tool developed by UC can provide accurate guidance on water and nitrogen fertilizer management for maximizing crop yield and quality while minimizing environmental impacts using weather, soil, and plant data. The software also can be used to maintain records of water and fertilizer use on a crop-by-crop basis, and to monitor irrigation systems and soil moisture using field sensors.

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FA-25

Initially launched in 2011, CropManage has always been free, and is used by growers, farm managers, consultants, governmental and non-profit agencies. Although initially developed for lettuce, CropManage now supports a range of vegetables, and includes perennial crops such as alfalfa, strawberries, raspberries, and almonds. The agricultural community's reliance on CropManage has steadily grown. The decision support tool provided more than 72,000 irrigation and fertilizer recommendations to users during the past 9 years. The algorithms for each commodity are based on years of UC research and field testing. New crops and features are continually added based on user feedback.

FA-26

However, to continue operation of CropManage funding is needed to maintain and to improve the software. Fixing bugs and addressing new developments in internet browsers and protocols requires updates to the software. Hosting CropManage on a professional cloud server and storing user data also has fixed costs. Through grants, UC Cooperative Extension has paid these expenses as well as the salary of a full-time professional software engineer who keeps CropManage running smoothly and adds new capabilities and features. While we will continue to seek out new grant opportunities, this is an uncertain source of funding. A sustained funding plan to continue to support this software platform would assure that UC knowledge and research continues to be available to growers as they work to address the water quality challenges outlined in the upcoming Agricultural Order.

FA-27

Thank you for your attention and for consideration of these comments.

Respectfully,

Michael Cahn, Ph.D.
Irrigation and Water Resources Advisor
UC Cooperative Extension

Citations:

Cahn, M., R. Smith, L. Murphy, and T. Hartz. (2017). Field Trials Show the Fertilizer Value of Nitrogen in Irrigation Water. *California Agriculture*. Volume 71, No. 2. DOI:10.3733/ca2017a0010.

Monterey County Resource Management Agency (2015) State of the Salinas River Groundwater Basin pp. 240.

<https://www.co.monterey.ca.us/home/showdocument?id=19586>

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Response to Comment FA-1

Thank you for your comment. The CCWB acknowledges the commenter's background and interests.

Response to Comment FA-2

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment FA-3

This comment is summarized and responded to in the following Master Responses: 2.1.11 and 2.3.3.

Response to Comment FA-4

This comment is summarized and responded to in Master Response 2.5.8

Response to Comment FA-5

This comment is summarized and responded to in Master Response 2.1.11.

Response to Comment FA-6 through FA-8

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment FA-9

This comment is summarized and responded to in Master Response 2.3.2.

Response to Comment FA-10

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment FA-11 through FA-14

This comment is summarized and responded to in Master Response 2.1.11.

Response to Comment FA-15

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment FA-16 through FA-18

This comment is summarized and responded to in Master Response 2.1.11

Response to Comment FA-19 through FA-21

This comment is summarized and responded to in Master Response 2.3.3.

Response to Comment FA-22

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment FA-23 through FA-26

This comment is summarized and responded to in Master Response 2.3.1.

Response to Comment FA-27

Thank you for your comment.

Letter FB: Randy Heinzen, Vineyard Coalition, VPS, Inc. (June 22, 2020)**Letter FB**

From: [Randy Heinzen](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 9:59:15 PM

EXTERNAL:

June 22nd, 2020

Matthew T Keeling, Executive Officer
 Central Coast Regional Water Quality Control Board
 895 Aerovista Place, Suite 101
 San Luis Obispo, CA 94301
AgNOI@waterboards.ca.gov

Re: Vineyard Coalition Comments on Draft Agricultural Order 4.0

Dear Executive Officer Keeling:

FB-1 Thank you for soliciting feedback and continuing to work with all stakeholders in the creation of Ag Order 4.0. As a farm manager with 28 properties consisting of over 3,000 acres of winegrapes in the Central Coast, Ag Order 4.0 has far reaching consequences for the land we farm, the folks employed in agriculture, the people who live in our watersheds and the economic viability of the above operations.

FB-2 The 900 pages of information relating to the draft Agricultural Order presents a complicated, confusing patchwork of regulations. I gleaned from the Order that burdensome reporting requirements for vineyards will be created without justifiable evidence of any aid in improving water quality, the Order will be not allow for the proper partners to aid in compliance, and it's requirements look economically unreasonable. Vineyards already currently meet the 2050 Nitrogen Loading threshold and operationally exceed most best management practices for soil and water protection. Further, the exclusion of the Central Coast Vineyard Team's SIP Certification virtually nullifies the twenty years of progressive, voluntary and considered environmental stewardship that this organization has spearheaded here on the Central Coast. Finally, the costs and lost revenue incurred in removing farmable land for excess buffer zones, the expenses of hiring professional paperwork pushers to file forms that simply check boxes for regulators, and the burden of additional testing adds to the morass of non-farm activities required of farmers...the true conservationists and environmental specialists.

FB-3

FB-4

FB-5 Here on the Central Coast, our company has coordinated 7 Healthy Soil Projects, 12 SWEEP Projects, multiple EQIP grants, a Healthy Soil Demonstration Project with our local RCD and a USDA REA grant. We have dutifully sampled and coordinated the compliance with all previous Ag Orders on behalf of our clients. The Draft Ag Order 4.0 as written is simply bad policy. We respectfully encourage staff to modify this Draft to consider alternative compliance for low risk vineyards, reduce regulatory requirements through incentivizing best management practices, and incorporate participation in SIP Certified and

FB-5
cont.



other certifications as a method for demonstrating proper land stewardship.

Thank you,

Randy Heinzen
President of VPS, Inc.
P.O. Box 1360, Templeton CA 93465
805-434-2044

--



Randy Heinzen, AFM
President
805-434-2044

Response to Comment FB-1

Thank you for your comment.

Response to Comment FB-2

This comment is summarized and responded to in Master Response 2.1.4.

Response to Comment FB-3

This comment is summarized and responded to in Master Response 2.2.2.

Response to Comment FB-4

This comment is summarized and responded to in the following Master Responses: 2.8.8; 2.9.1; and 2.1.5.

Response to Comment FB-5

This comment is summarized and responded to in Master Response 2.2.2.

Letter FC: Adam Kotin, Kim Stemler, Joel Peterson, Wine Institute, Monterey County Vintners & Growers, Paso Robles Wine Country Alliance (June 22, 2020)**Letter FC**

From: [Noelle Cremers](#)
To: [AgNOI_WB@Waterboards](#)
Cc: [Tim Schmelzer](#)
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 3:32:46 PM
Attachments: [AG ORDER 4 COMMENTS 6_22_2020.pdf](#)
[VineyardComments_WI_PRWCA_MCVGA_AgOrderConcept_1_21_2019.pdf](#)

EXTERNAL:

Please find our attached comments and previous comments we submitted for ease of reference.
Please let me know if you have any questions.

Thanks,
Noelle

Noelle G. Cremers
Director, Environmental and Regulatory Affairs
915 L Street, Ste. 1190, Sacramento, CA 95814
Office: 916-378-8280 x106 | Cell 916-601-5357
ncremers@wineinstitute.org | <https://www.wineinstitute.org>





June 22, 2020

Delivered via electronic mail to AqNOI@waterboards.ca.gov

Matthew T. Keeling, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 94301

Re: Vineyard coalition comments on draft Agricultural Order 4.0

Dear Executive Officer Keeling:

- FC-1 | On behalf of our grower and vintner members in the Central Coast, thank you for the opportunity to comment on the draft Agricultural Order 4.0.
- FC-2 | Wine Institute (WI) is the public policy advocacy association of California wineries, representing over 1,000 wineries and affiliated businesses around the state. Paso Robles Wine Country Alliance (PRWCA) is a non-profit trade association representing over 200 wineries and 40,000 vineyard acres along with hospitality and related business members in the Paso Robles Wine Country. Monterey County Vintners and Growers Association (MCVGA) is the regional trade association for winegrowing and winemaking industries in Monterey County.
- FC-3 | Our organizations previously commented on the Conceptual Regulatory Requirement Options in January 2019, and those comments are appended for ease of reference. This comment letter has also benefited from considerable input from our grower members, who continue to closely engage in the Board's Agricultural Order development process.
- FC-4 | In our January 2019 comments, we noted that a significant percentage of vineyard acres in the Central Coast region are certified to voluntary sustainability programs developed and administered by the Central Coast Vineyard Team and the California Sustainable Winegrowing Alliance (CSWA). We continue to advocate that the Board should consider the documentation and actions that growers implement through participation in voluntary sustainability certifications as evidence of a lowered threat to water quality, and thereby seek ways to lower the regulatory burden of certified operations under an Agricultural Order 4.0. Comments submitted by CSWA further expand on this point.
- FC-5 | In the comments below, we primarily address aspects of the draft Order that are most relevant to vineyards, focusing on the issues that our members have identified as a priority. However,

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- FC-5
cont. ↑ we are also aware of the ideas presented in the comments submitted by the broader agricultural coalition and do not directly comment on many of the issues they address.
- FC-6 ↑ It is important to recognize the current economic environment in which the Order is being adopted. The U.S. wine industry, of which California makes up 81 percent, is forecast to see COVID-19 related losses of nearly \$6 billion this year. These losses are expected to lead to a 25 percent reduction in demand for winegrapes, resulting in a drop of \$1.4 billion worth of grape sales¹. These expected losses will impact the ability of grape growers to invest in water quality improvements.
- FC-7 ↑ In addition to the acute economic impacts caused by the COVID-19 pandemic, California agricultural producers have seen a significant rise in regulatory costs associated with doing business in this state. A recent case study by two Cal Poly professors documented a 795 percent increase in regulatory costs incurred by a lettuce grower in the Salinas Valley between 2006 and 2017². While leafy green growers have additional food safety regulatory costs that aren't representative of winegrape regulatory costs, removing the increased costs due to specific leafy green food safety regulations, regulatory costs still increased by an estimated 633 percent.
- FC-8 ↑ In addition to the recognized increase in regulatory costs on growers on the Central Coast, there will be additional costs incurred due to the implementation of the Sustainable Groundwater Management Act (SGMA), which passed in 2014. SGMA will require growers to comply with Groundwater Sustainability Authority's Groundwater Sustainability Plans when fully implemented. These compliance requirements will add additional regulatory costs to Central Coast growers.
- FC-9 ↑ **I. Ranch-Level Discharge Monitoring Requirements**
- The draft Order is overly broad in its description of the circumstances under which the Executive Officer may require ranch-level surface discharge monitoring, quantitative assessments, and monitoring work plans. As currently drafted, the Order raises the very real prospect that a given Discharger could be required to implement ranch-level monitoring simply by the fact of its geographic placement above an impacted groundwater basin or within a cooperative monitoring area, but through no fault of that Discharger's operation. Dischargers should not be required to submit costly quantitative assessments, monitoring work plans, and ranch-level monitoring information if there is clear evidence that the ranch is not contributing to an exceedance.

¹ According to a recent analysis by Jon Moramarco, managing partner of bw166 and editor of the Gomberg-Fredrikson Report.

² Hamilton, L. and McCullough, M (2018). A Decade of Change: A Case Study of Regulatory Compliance Costs in the Produce Industry, Available at: https://digitalcommons.calpoly.edu/agb_fac/155/

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- FC-10 *a. Dischargers Should Not Be Required to Conduct Groundwater Discharge Monitoring if Not Exceeding the Order's Final Nitrogen Limit.*
- FC-11 The draft Order would authorize the Executive Officer to require ranch-level groundwater discharge monitoring (and associated work plans) "based on groundwater quality data or exceedance of the nitrogen discharge targets or limits" (MRP page 20-21).
- FC-12 Planning and implementation of ranch-level groundwater discharge monitoring imposes a significant cost and burden on the Discharger and should only be required when there is clear evidence that implementing this enhanced monitoring will result in tangible benefits to water quality.
- FC-13 Groundwater quality improvements are known to lag significantly behind management practice improvements, sometimes on the order of decades. A groundwater impactation identified via local groundwater monitoring data may not be attributable to current activities at the closest ranch nearby, or even to other ranches in the region.
- FC-14 The draft Order would adopt a final limit for nitrogen. The Order would consider compliance with this final limit to be protective of groundwater quality. **Therefore, if a Discharger is in compliance with the final nitrogen limit, there should be no need for a work plan or quantitative assessment of the operation's nitrogen discharge.** The Order should specify that compliance with the final Nitrogen limit removes any potential obligation to develop and implement a ranch-level groundwater discharge monitoring work plan.
- FC-15 *b. Dischargers Should Not Be Required to Conduct Ranch-Level Surface Discharge Monitoring When They Can Demonstrate No Potential to Contribute to the Specified Exceedance*
- FC-16 The draft Order (page 30) would authorize the Executive Officer to require ranch-level surface discharge monitoring "based on surface water quality conditions or exceedance of the limits established in this Order".
- FC-17 We understand that the "surface water quality conditions" on which the Executive Officer would make the decision to require an operation to implement ranch-level monitoring are regional conditions as determined by the local cooperative monitoring effort.
- FC-18 Decisions regarding ranch-level surface discharge monitoring should always be made in the context of a particular operation's potential to contribute to an exceedance, and not solely based on regional surface water conditions.
- FC-19 Therefore, if a Discharger can demonstrate that their operation has no potential to contribute to a specified surface water exceedance, the Executive Officer should not require a ranch-level monitoring work plan or implementation. The Discharger could make this demonstration via operational records (e.g. evidence that a particular chemical or material is not and has not been

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- FC-16 cont. ↑ in use at the property), information about the flow of water across the property (e.g. a technical demonstration that storm water or irrigation runoff does not reach a surface water body), or similar means.
- FC-17 | c. *The Order Should Adopt Specific Guidelines and a Review Process for Determining Whether Ranch-Level Surface Discharge Monitoring is Justified.*
- FC-18 | The Order should adopt specific guidelines and a fair, transparent process for the Executive Officer to follow in determining whether the considerable cost of ranch-level groundwater discharge monitoring is justified at a particular ranch.
- FC-19 | For each ranch that the Executive Officer may require to implement ranch-level monitoring, this process should include, at a minimum,
- FC-20 | i. Consideration of whether the ranch is a member 'in good standing' of a cooperative monitoring program,
- FC-21 | ii. Consideration of whether the ranch participates in a voluntary sustainability certification program,
- FC-22 | iii. Consideration of whether a ranch has the potential to discharge the constituent posing a risk to the affected waterbody.
- FC-23 | iv. Review of Farm Plan documents, including:
1. best management practices,
 2. reporting on discharge characteristics,
 3. (where applicable) reporting on chemicals or materials used,
- v. Consideration of property characteristics that may impact the likelihood of impacts to surface water, including:
1. Discharge pathways through the property
 2. Relevant geographic characteristics such as slope, proximity to waterways, etc., and
 3. Crops grown and other agronomic characteristics that impact how applied nutrients, applied chemicals, and sediment are anticipated to flow through the property
- FC-24 | The Executive Officer's review process should be standardized and implemented in an open, transparent manner.
- FC-25 | Additionally, if required to implement ranch-level surface discharge monitoring, Dischargers should receive the opportunity to appeal this decision through a standardized, open, and transparent process.

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II. Sustainability Programs

FC-26

The Order should specify that existing documentation for sustainability certification programs can satisfy Farm Plan requirements. In our January 2019 comments, we offered a variety of ways for the Order to recognize and incentivize broader adoption of voluntary vineyard sustainability certification programs.

The sustainability programs will certainly continue to provide the important role of educating growers on best practices, including technical skills and assistance for improving water quality, to help growers satisfy the Continuing Education requirements of the Order.

However, we are disappointed to see only minimal acknowledgement and incentivization of these important on-the-ground programs in the draft Order.

FC-27

To participate in a sustainability certification program, growers develop extensive documentation of their operations. Much of this documentation, planning, and evidence of practice implementation could be used to satisfy the Order's requirements in the INMP, PMP, SEMP, and RAMP. In fact, a primary benefit to the grower of voluntary sustainability certifications is that they provide the resources and tools to identify environmental Best Management Practices that are best suited to the particular operation.

In some cases, the information developed for certification may not be in the same formats as specified in the Order's Farm Plan requirements. The Order should include the opportunity for sustainability certification programs to put forward examples of how alternative documentation developed for certification could also satisfy the Order's Farm Plan requirements.

III. Small Acreage Exemption or Minimum Registration Requirement

FC-28

The Order should exempt or require only minimum registration requirements for vineyards and other permanent crops under 5-acres in size. The draft Order contains numerous monitoring and reporting requirements that will be particularly onerous for small vineyard operations. Many of these operations lack the technical expertise or in-house staff to satisfy the documentation required by the Order and will therefore need to hire outside assistance at potentially considerable cost.

FC-29

Furthermore, due to the nature of winegrowing, most small vineyard operations are likely to pose a small to negligible threat to water quality. There are likely other crops whose agronomic practices pose a similarly negligible threat to water quality and, therefore, should also be exempt.

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- FC-30 | The Board's mandate for even the smallest vineyard operations in the Central Coast Region to comply with the full Order and its documentation requirements will create a significant burden on these small dischargers without a clear water quality benefit.
- FC-31 | The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) acknowledged the effectively 'de minimis' nature of some vineyards in the Napa River and Sonoma Creek watersheds in adopting its 2017 Vineyard Order (R2-2017-0033). That Order fully exempted all vineyards under 5 acres in size and described its rationale in the Order's findings, with the option for the Board to require enrollment for cause.
- FC-32 | We therefore recommend that the Ag Order 4.0 do one of the following, either:
- FC-33 | 1. Exempt all vineyards (and other appropriate permanent crops) under 5 acres in size from the requirements of the Order, or
- FC-34 | 2. Require vineyards (and other appropriate permanent crops) under 5 acres to register under the Order by completing a basic eNOI but waive the Farm Plan and monitoring requirements unless requested by the Executive Officer.
- FC-35 | If following Option 2, the Executive Officer could request additional information about the operation and require full enrollment if it were determined to be necessary for the protection of water quality.
- FC-36 | **IV. Riparian Operational Setback Requirements**
- FC-36 | a. *The Board should narrow the operational setback requirements.*
- FC-37 | The draft Order would ultimately require all dischargers, including those outside of riparian priority areas, to implement an 'operational setback' around water bodies that are contained within or bordering a ranch property.
- FC-37 | The draft Order should focus requirements regarding riparian areas to those that are specifically tied to potential discharges, rather than including blanket requirements across all irrigated agricultural lands within the region. It is important to note that the Appellate Court³ opined specifically on riparian buffers in its ruling and stated: "Significantly, the court did not find that an adequate waiver must include 'nitrogen balancing ratios, broader farm plan reporting, more rigorous pesticide controls, *mandatory vegetation/riparian buffers*, and/or more comprehensive tile drain monitoring.'" We urge that setbacks be narrowed significantly by tying them directly to an individual property's discharge potential rather than creating broad requirements across the entire region.

³ Monterey Coastkeeper vs. State Water Resources Control Board, Court of Appeal of California, Third Appellate District, 2018.

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- FC-38 The broad application of setbacks is particularly concerning given the lack of information available to identify the proposed setback areas. Several of our members have attempted to identify what operational setbacks might be required on their property(ies), using the descriptions and definitions in the draft Order that was released. In doing so, they have discovered that determining whether and how additional operational setbacks should be implemented may require significant investment of time, resources, and expertise in many cases. These investments are in addition to the investments necessary to comply with the protections required by the draft Order.
- FC-39 We therefore request that the Board provide stream maps and stream order information or other guidance documents that help to identify operational setback requirements. This will assist ranches around the Central Coast region that have discharge potential, and therefore should have operational setbacks.
- FC-40 The draft Order sets out four compliance options for dischargers in Riparian Priority Areas whose riparian setbacks do not meet the standards required by the Order. Those dischargers are required to choose one of four compliance paths. The On-Farm Setback option contains standards likely to be unachievable. The requirement to use native vegetation that naturally occurs in the discharger's HUC-8 watershed creates a nearly impossible standard. Restoration projects generally use commercially available seed mixes to re-establish vegetation. These seed mixes are generally not produced to provide the level of specificity required by the Order. Greater flexibility should be provided, so that commercially available vegetative mixes are eligible for use to improve riparian areas.
- FC-41 *b. Provide a Clarification or Specific Exemption Allowing Limited Use of Riparian Setback Areas for Farm Equipment Turnaround*
- FC-42 We appreciate the clarifications provided in the workshops presented by Regional Board staff June 2-4, 2020 regarding 'operational setback' requirements. The answers provided by staff to questions raised in the workshop about the ability to drive through 'operational setback' areas and the ability for tractors to turn within 'operational setback' areas were helpful. We appreciate that roads can remain in 'operational setback' areas so long as there are erosion control measures in place, such as rolling dips and that 'heavy equipment' can travel within 'operational setback' areas so long as they are not being used to remove vegetation.
- FC-43 The current language included in the Order remains confusing on these points, and we would recommend changes to the language included in the order to ensure that these activities can occur within 'operational setback' areas. Without the clarification the Order appears to require some operations to remove existing vineyard acreage bordering a riparian area on the property. This requirement alone will result in significant lost revenue to many operations as a result of decreased production.

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FC-44

Vineyard management activities require a tractor 'turn around' area at the end of each vineyard row. This 'turn around' area often requires 20 to 30 feet. Despite staff's clarification in the workshops, the draft Order's language prohibits use of 'heavy machinery' in the operational setback. If the operational setback area does not allow for limited use of tractors for 'turn around' activities, this means an additional 20 to 30 feet of vineyard would need to be removed along the length of the riparian area in addition to the designated operational setback, in order for vineyard operations to continue.

FC-45

We request amendments to the Order to ensure that it follows staff's statements made during the workshop. These changes will prevent the need to remove vineyard plantings within an 'operational setback' area. We believe clarification by the Board limiting the prohibition of heavy machinery to the removal of vegetation (except in the case of invasive species) within 'operational setback' areas would improve the Order.

FC-46

CONCLUSIONS

We appreciate the opportunity to comment on the draft Ag Order 4.0 as its adoption will have significant impact upon our members. We respectfully request you amend the Order to address the items included in this letter.

Sincerely,



Kim Stemler
Executive Director
Monterey County Vintners and Growers
Association



Joel Peterson
Executive Director
Paso Robles Wine Country Alliance



Noelle G. Cremers
Director, Environmental and Regulatory
Affairs
Wine Institute

Response to Comment FC-1

Thank you for your comment.

Response to Comment FC-2

The CCWB acknowledges the commenter's background and interests.

Response to Comment FC-3

This comment is noted.

Response to Comment FC-4

This comment is summarized and responded to in Master Response 2.2.2.

Response to Comment FC-5

This comment is noted.

Response to Comment FC-6 through FC-8

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment FC-9

This comment is summarized and responded to in the following Master Responses: 2.3.9; 2.3.3; 2.4.2; 2.5.5; 2.5.11; 2.5.2; 2.5.3; 2.6.6; and 2.7.3.

Response to Comment FC-10 through FC-11

This comment is summarized and responded to in the following Master Responses: 2.3.9; 2.3.3; and 2.4.2.

Response to Comment FC-12

This comment is summarized and responded to in Master Response 2.4.1.

Response to Comment FC-13

This comment is summarized and responded to in Master Response 2.3.5.

Response to Comment FC-14

This comment is summarized and responded to in the following Master Responses: 2.2.2 and 2.3.5.

Response to Comment FC-15

This comment is summarized and responded to in Master Response 2.5.3.

Response to Comment FC-16

This comment is summarized and responded to in the following Master Responses: 2.2.2 and 2.3.5.

Response to Comment FC-17 through FC-25

This comment is summarized and responded to in the following Master Responses: 2.5.5; 2.5.11; 2.5.2; 2.5.3; 2.6.6; and 2.7.3.

Response to Comment FC-26

This comment is summarized and responded to in the following Master Responses: 2.1.5 and 2.2.2.

Response to Comment FC-27

This comment is summarized and responded to in Master Response 2.1.5.

Response to Comment FC-28

This comment is summarized and responded to in the following Master Responses: 2.1.5 and 2.1.7.

Response to Comment FC-29

This comment is summarized and responded to in Master Response 2.3.10.

Response to Comment FC-30 through FC-35

This comment is summarized and responded to in Master Response 2.1.7.

Response to Comment FC-36 through FC-45

This comment is responded to in Master Response 2.8.8.

Response to Comment FC-46

Thank you for your comment.

Letter FD: Sarah Hoyle, Aimee Code, Xerces Society for Invertebrate Conservation (June 22, 2020)**Letter FD**

From: [Sarah Hoyle](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 3:05:17 PM
Attachments: [Xerces Central Coast Ag 4.0 Comment.pdf](#)

EXTERNAL:

Please see the attached comments on the Central Coast's Draft Agricultural Order 4.0 from the Xerces Society for Invertebrate Conservation.

Thank you for considering our comments,
Sarah Hoyle

--

Sarah Hoyle
Pesticide Program Specialist



Regional Office: Truckee, CA
Tel: (914) 419-0104

Main Office:
628 NE Broadway Suite 200
Portland, OR 97232

Connect with Xerces: xerces.org [Xerces blog](#) [E-newsletter](#) [Facebook](#) [Twitter](#)



Protecting the Life that Sustains Us

June 22, 2020

Central Coast Water Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

RE: Comments on the Draft Agricultural Order 4.0

- FD-1 The Xerces Society for Invertebrate Conservation (Xerces) appreciates the opportunity to comment on the Central Coast Water Board's Draft Agricultural Order 4.0 (Order). Xerces is an international nonprofit organization that protects wildlife through the conservation of invertebrates and their habitat. We are concerned about effects of pesticide surface water contamination on aquatic invertebrates and the essential ecosystems they support. Xerces staff work extensively with farmers in California to implement invertebrate conservation techniques, including installing habitat and reducing the use of pesticides. It is with this expertise that we offer comments on the surface water pesticide components of the Draft Agricultural Order 4.0. Xerces is pleased to see that the Draft Order includes numeric limits for pesticides in surface water and riparian buffers around streams.
- FD-2 Xerces is supportive of how the Draft Agricultural Order 4.0 addresses surface water pesticide contamination with quantifiable numeric limits and specific goals. Implementing numeric limits on pesticides along with total toxic unit restrictions and toxicity testing using multiple species will create a strong regulatory system for limiting pesticide toxicity. All too often, pesticides are only considered as individual compounds, ignoring the effects combinations have on invertebrates and ecosystems. However, there are some questions raised by the total toxic unit calculation instructions in the Order. Currently, it is not clear which toxicity measures for a specific class of pesticides should be summed and remain under 1 to comply with the total toxic units limit. The Order should specify what toxicity measures (test species, time of exposure, LC or EC value, etc.) should be summed in order to clarify how total toxic unit compliance will be evaluated. Considering toxicity from groupings of pesticide classes will help the region minimize pesticide-related surface water toxicity that may be missed by relying on individual pesticide concentrations.
- FD-3
- FD-4 The Order proposes using EPA's chronic invertebrate aquatic life benchmarks when available for numeric limits. However, some of these values have not been updated to reflect the latest aquatic toxicity information, so the Board should periodically check for updates and revise limits appropriately. In cases where the Central Coast has derived water quality criteria for a pesticide, these numbers could be used as limits. When EPA aquatic life benchmarks are not available for a pesticide, numeric limits should reflect chronic toxicity data for the most sensitive aquatic species tested. Currently, some of the numeric

628 NE Broadway, Suite 200 | Portland, OR 97232 | 1.855.232.6639 | www.xerces.org

FD-4 cont.	↑ limits are based on LC ₅₀ s without adjustment. The LC ₅₀ is a blunt instrument, measuring the concentration that kills 50% of a test population. This approach does not include any safety factor or other calculation to account for differences in sensitivity among invertebrates or to reduce concentrations to a level that would not be expected to result in sublethal or delayed effects on individuals that could lead to population level harm. Using additional toxicity information to adjust the LC ₅₀ with an acute-to-chronic ratio, safety factor, or using an LC ₁₀ may be more appropriate than an LC ₅₀ to be more protective of populations.
FD-5	↑ The Order proposes quarterly pesticide sampling, but this is likely insufficient to identify temporal shifts in pesticide contamination. More frequent sampling that is targeted to include both dry weather and storm event sampling, would provide more useful insights into pesticide concentrations and toxicity over time. Sampling during the first storm event of the season, and more frequently throughout the irrigation season should be prioritized. While pesticide pulses may be fleeting, the impacts of even short durations of higher concentrations can be lasting. More frequent monitoring will allow the Board to identify temporal patterns in pesticide concentrations and toxicity that may need to be addressed.
FD-6	↑ We recommend that the Order consider a more accelerated timeline for implementing surface water pesticide regulations. A timeframe of 10 years to implement the surface water provisions of the Order will allow existing toxicity to persist when it could be addressed sooner. At a minimum, the Board should consider interim measures to address existing surface water pesticide toxicity prior to 2031.
FD-7	↑ Given the timeline of the Order, the Board should add provisions to address new pesticides that may present water quality problems. As pest management techniques and pesticide products are constantly evolving, we can expect that additional pesticides may contribute to surface water toxicity in the coming years. For example, imidacloprid is the oldest neonicotinoid pesticide and is often monitored in surface water samples, but the use of newer neonicotinoid pesticides has risen in recent years. However, these are often not monitored, leaving an incomplete picture of the contribution of neonicotinoids as a class to surface water pesticide toxicity issues across the state. Newer water soluble pesticides including butenolides and diamides are already beginning to replace neonicotinoids. Without a provision to add new chemistries to monitoring programs as their use increases, or revise numeric targets as additional toxicity research becomes available, the Order could fall behind in meeting the goal of minimizing surface water toxicity from pesticide discharges.
FD-8	↑ Implementing riparian buffers can effectively reduce contaminant loading in waterways and also provide more diverse habitat to benefit aquatic invertebrates and the ecosystems they support. However, riparian buffers that are intended to filter out pesticides, especially systemic insecticides, should not include flowering pollinator habitat because of the risk of contamination moving into plants and exposing pollinators.
FD-9	↓ Overall, the Order addresses surface water pesticide contamination effectively with robust monitoring requirements and specific compliance targets. The use of numeric limits for

FD-9
cont.



surface water pesticide discharges is essential to protecting water quality throughout the region. Xerces appreciates the Central Coast Water Board's attention to resolving ongoing pesticide contamination. Thank you for considering our comments, and please reach out with any questions.

Sincerely,

Sarah Hoyle
Pesticide Program Specialist

Aimee Code
Pesticide Program Director

Response to Comment FD-1

Thank you for your comment. The CCWB acknowledges the commenter's background and interests.

Response to Comment FD-2

This comment is summarized and responded to in Master Response 2.6.5.

Response to Comment FD-3 through FD-4

This comment is summarized and responded to in Master Response 2.6.4.

Response to Comment FD-5

This comment is summarized and responded to in Master Response 2.6.3.

Response to Comment FD-6

This comment is summarized and responded to in Master Response 2.6.5.

Response to Comment FD-7

This comment is summarized and responded to in Master Response 2.6.3.

Response to Comment FD-8

This comment is responded to in Master Response 2.8.8.

Response to Comment FD-9

This comment is summarized and responded to in Master Response 2.6.5.

Letter FE: Jim Orradre, Orradre Farming (June 22, 2020)**Letter FE**

From: [Jim](#)
To: [AgNOI_WB@Waterboards](#)
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 10:55:35 AM

EXTERNAL:

- FE-1 | Hi I am a small grower in the Salinas Valley. I currently work with Swim Systems, Hortau, and Wildeye on my Irrigation schedule these companies are good tools to determine when to irrigate and duration. These tools have helped me save water and energy costs and improved yields. This helps with my bottom line because if I cant make a profit I am out of business. These tools are not mandated by the state but I see value in them to help me become a better farmer.
- FE-2 | I also work with Wilbur Ellis Co for my fertilzer needs. They do nitrate quick test and water, soil samples to determine exactly what my crops need. The company is very pro active on new ways to fertilzer my crops. They have a lot of knowledge working in the Salinas Valley for many years. I also use Cooperative Extension Univ of Arizona, Cal Poly, Fresno St and UC Davis these are great Ag schools. They have up to the date info On BMP for Ag crops.
- FE-3 | I would rather work with these groups then a bunch of State people who have no background in farming and have people who work in the theory mode. As an example we used 60lbs of nitrate fert on a baby spinach crop lost a 20ac planting it turned yellow stunted and not harvested. The loss was around \$160,000.00 in real dollars. So any body tells you they can grow a spinach crop with 60lbs of N is lying to you. It would be better if you guys put the brakes on this process for at least 5 years so farmers can deal with the losses from Covid 19 a lot of growers have lost a lot of money. The state itself is in a big deficit. Growers are having to deal with SGMA also.
- FE-4 | The Salinas Valley is known as The Salad Bowl of the World because of water, soil, climate and the best farmers in the world. We take risk everyday and I believe if you work with with us we can find solutions to these problem. Instead of treating us as bad actors to justify your jobs. I would prefer my food to come from Ca growers instead of China or some other country that hates us.

Jim Orradre
 831-594-4460
jmorradre@charter.net
 Orradre Farming

Response to Comment FE-1

Thank you for your comment.

Response to Comment FE-2

This comment is noted.

Response to Comment FE-3

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.9.3; and 2.3.10.

Response to Comment FE-4

This comment is noted.

Letter FF: Christopher Hight, Betteravia Farms, LLC. (June 23, 2020)**Letter FF**

From: [Christopher Hight](#)
To: AgNOI_WB@Waterboards
Subject: Public Comment for Ag Order 4.0
Date: Tuesday, June 23, 2020 8:51:25 AM
Attachments: [image001.png](#)
[Ag Order 4.0 Betteravia Comment.docx](#)

EXTERNAL:


Christopher Hight
Lab Supervisor
Betteravia Farms, LLC.
805-868-1215



AG Order 4.0 Comments by Christopher Hight, CCA SSsp/PASp, PCA
Lab Manager for Betteravia Farms

FF-1 Numerous items attached to the AG Order 4.0 proposed by the California Water Resources Control Board will put a large strain on the wallet of every farmer and subsequently each of the employees of the farmer. Riparian setbacks, storm and ground water monitoring programs, Irrigation and Nutrient Management plans and Pesticide Management plans will require the insight and implementation of a skilled professional who will not work for free.

Associated Costs and Hardships

FF-2 All measures are taken to ensure that fertilizer application is necessary prior to being applied. In-house laboratory testing accounts for any residual Nitrogen within the soil to determine the necessity and amount of Nitrogen added to each crop. Further restriction of fertilizer application would be costly for the state to enforce and could potentially damage the overall yield of the cropping system. The nitrates in water alone are not enough to sustain a healthy crop.

The coefficient for removed nitrogen is not available in many Central Coast crops. There needs to be more research done in evaluating the amount of removed nitrogen in each crop, as well as any varietal differences within that crop. Reporting the amount of nitrogen applied is a compromise until these coefficient values have been developed.

Sediment and Erosion Control

FF-3 Irrigation management techniques have been instituted to make sure that sediment, pesticides and nutrients do not leave the field. Many of the fields rotate between berry and cole crops annually. If sediment basins are implemented for crops such as berries, when they rotate back to a cole crop (ex. Broccoli) the sediment basin will provide a large risk for food borne illnesses such as Escherichia coli. Setting up the sediment basin costs thousands of dollars per ranch and an additional cost for the land that cannot be used to grow crops. Then another cost will be applied when the sediment basin must be taken out for the cole crop. For land owners, converting between sediment basin and no sediment basin provides an added cost when leasing to a tenant.

FF-4 To further prevent erosion and sediment loss, grass and cover crops are recommended or required but directly contradict food safety regulations. While grass cover reduces sediment run-

FF-4 ↑ off it also provides habitats for such food safety violators as rats or mice. In this case the grass
cont. directly violates restrictions put into place by food safety laws.

FF-5 Implementing each individual discharge monitoring program will be both time consuming and costly. Surface water testing would be approximately \$60 per acre, groundwater testing will be approximately \$15 per acre and sediment monitoring will be around \$20 per acre. This adds up to an additional \$95 per acre minimum just for the testing and does not include an individual to procure all of the necessary tests.

Pesticide Usage

FF-6 Having our own Pesticide Advisors allows for the amount of pesticides applied to be in direct correlation with the amount that needs to be applied for a healthy, disease free crop. Having PCA's in house prevents over application of pesticides and provides advisors that have the company's best interest in mind. Discharge limits for pesticides is an unrealistic ideal. Yes, pesticides need to be restricted to limits that do not harm the environment but can be done without implementing costly toxicity testing. Primary toxicity testing for just one ranch is approximately \$3,500 per test and secondary identification evaluations cost an additional \$5,000 per test. This restriction can put many smaller growers out of business.

FF-7 Restricting pesticide usage will also make it difficult for companies to keep their workers safe. Many pesticides reduce pest populations to levels low enough that workers can perform their jobs. Reducing necessary applications of pesticides can allow predators to reach unsafe levels, such as spiders and mealy bugs in grapes. When spiders get out of hand workers are increasingly bitten and when mealy bugs are out of control grape picking becomes a sticky, disgusting mess.

Riparian Setback

FF-8 A Riparian Habitat in theory is a great idea, but is unrealistic to implement. Just due to the lost field area contributing to the Riparian zone would be approximately \$3,500 per acre. By managing the ranches in a sustainable matter a Riparian zone will not be necessary. By reducing tillage with no-till or minimum till practices, soil health will increase including organic matter percentage increase, natural microbiology increase, water infiltration increase and sediment run-off decrease.

FF-9 While Riparian Setbacks state that they will provide environments for local wildlife to co-exist many of the streams located near the setbacks have little to no water in them and will not sustain plant or animal life. Taking land out of production will cause produce prices to rise through supply and demand. Raising the price of commodities during this tumultuous time does not seem a feasible plan.

Conclusion

FF-10 Every precaution is taken to ensure that fertilizer is applied when necessary, in an amount that coincides with plant growth needs. Every reasonable measure is taken to reduce or eliminate sediment and pesticide run-off from any fields, especially those near susceptible water ways. Each of these items is done with the environment in mind and also the well-being of the company. Betteravia Farms takes great pride in the testing and monitoring programs that we have in place that greatly contribute to our sustainability.

FF-11 Well monitoring would only provide insight to the amount of Nitrogen that is currently in each aquifer. If all farming stopped for the next fifty years it would not stop the Nitrogen currently in the soil depths from reaching the aquifers. The important thing is to minimize N loss by restricting applications of Nitrogen to meet the uptake curves provided by University data. The idea is to apply when it is needed and the chance of leaching or volatilizing is low. Educating people in better application techniques to achieve the most benefit from their fertilizers is the best course of action. One does not succeed in business for nearly nine decades by destroying the resources he uses to make a living.

FF-12 Implementing AG Order 4.0 will place a large workload as well as a large financial burden on already struggling businesses. If this ordinance is passed as is, the financial burden will make it difficult for farmers to employ all of the individuals the company needs for day to day tasks. Further restricting the number of available jobs will not help the economy or environment in times like these.

Response to Comment FF-1

This comment is summarized and responded to in Master Response 2.9.1.

Response to Comment FF-2

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.1.8; 2.3.10; and 2.3.4.

Response to Comment FF-3

This comment is summarized and responded to in Master Response 2.9.6.

Response to Comment FF-4

This comment is noted.

Response to Comment FF-5

This comment is summarized and responded to in the following Master Responses: 2.9.8 and 2.9.1.

Response to Comment FF-6

This comment is summarized and responded to in the following Master Responses: 2.9.8; 2.6.6; and 2.6.3.

Response to Comment FF-7

This comment is summarized and responded to in Master Response 2.6.2.

Response to Comment FF-8 through FF-9

This comment is responded to in Master Response 2.8.8.

Response to Comment FF-10

This comment is summarized and responded to in Master Response 2.3.1.

Response to Comment FF-11

This comment is summarized and responded to in Master Response 2.3.10

Response to Comment FF-12

This comment is summarized and responded to in the following Master Responses: 2.9.8 and 2.1.8.

Letter FG: Pete Anecito, Mission Ranches (June 23, 2020)**Letter FG**

From: [Mandy Flores](#)
To: [AgNOI_WB@Waterboards](#)
Cc: [Pete Anecito](#)
Subject: Comments on Draft Ag Order 4.0
Date: Tuesday, June 23, 2020 8:57:25 AM

EXTERNAL:

- FG-1 | Thank you for the opportunity to comment on the proposed Ag Order 4.0. We are an organic farm located in King City, Ca. We supply organic produce to a few of the largest shippers on the Central Coast of California. We hope this email finds you in a timely manner.
- FG-2 | We believe that the proposed order's compliance pathways for nitrogen discharge target and limits will negatively impact organic growers' fertility programs and economic sustainability due to the lack of recognition or discount provided to fertilizers used in organic agriculture. We are supportive of the nitrogen discount factor provided to application of composts due to their nitrogen mineralization rates based on their carbon-to-nitrogen ratio.
- FG-3 | We recommend that fertilizers used in organic farming be provided the same nitrogen discount factor as compost. The chemical characteristics of organic fertilizers align with compost, i.e. nitrogen mineralization rates and carbon-to-nitrogen ratios. Organic fertilizers are known to similarly contribute to on-farm soil health, nutrient and carbon sequestration, and water holding capacity
- FG-4 | We are also supportive of the comments provided to the board regarding this proposed rule from True Organic Products, Inc.

Sincerely,

Pete Anecito, General Manager
 Mission Ranches
 117 N. First St.
 King City, Ca. 93930
Panecito@missionranches.com

CONFIDENTIALITY NOTICE: The information contained in this message is proprietary and/or confidential. If you are not the intended recipient, please: (i) delete the message and all copies from your files; (ii) do not review, disclose, distribute or use the message in any manner; and (iii) notify the sender immediately. In addition, please be aware that any message addressed to our domain is subject to archiving and review by persons other than the intended recipient. Thank you.

Response to Comment FG-1

Thank you for your comment.

Response to Comment FG-2 through FG-3

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment FG-4

This comment is noted.

Letter FH: Ian Teresi, George Chiala Farms, Inc. (June 24, 2020)**Letter FH**

From: [Jeffrey Sanders](#)
To: [AgNOI_WB@Waterboards](#)
Cc: [Ian Teresi](#)
Subject: Comments of Draft Ag Order 4.0
Date: Wednesday, June 24, 2020 5:14:05 PM
Attachments: [GCF Comments.pdf](#)

EXTERNAL:

Hello,

Please find the attached Document.

Thanks you,

Jeffrey Sanders

Financial and Planning Manager
George Chiala Farms, Inc.

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June 24th, 2020

Matthew T. Keeling, Executive Officer.
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA. 93401-7906

Dear Matthew T. Keeling, Executive Officer:

- FH-1 The Board and staff are proposing an onerous and restrictive regulatory program in a time of great economic uncertainty for the farming community. Regulatory costs are cumulatively increasing, creating uncertainty for farm businesses. Regulatory costs affect competitiveness of the California agriculture industry. This can push crop production out of the state or to other countries, and with it jobs and income for the state and region.
- FH-2 Economic Pressure on Small Farms: Your 4.0 EIR includes estimates of some costs and requirements that would almost certainly result in changes in the physical farming environment. Have you considered the impact on small farmers who have more challenges in costs of all the extra record keeping material and the personnel time that requires?
- FH-3 Are you are pushing for large/larger corporate farms? These regulations also would help keep a small farm small. What would incentivize a small farm to keep his land? She/he would either sell to a developer or sell to a larger farm, or grow for that larger farm eliminating any chance to realize any large profits?
- FH-4 Increased Regulatory Costs for All Growers: Meeting the nitrogen (N) discharge limits in the Ag Order would require reducing applied N and/or incurring additional management costs. Costs of N discharge requirements, compliance with surface water discharge limits, riparian setback areas, and other key substantive provisions are NOT estimated, or at least have not been communicated to the ag industry. This would result in potential changes to yield, quality, and costs that will affect the mix (or number) of crops that can be grown in the region and lead to land being idled and permanently removed from production.
- Hamilton (2006) compared the costs of regulation between California and Arizona for lettuce production, and between California and Texas for citrus. California's costs of regulation in lettuce were 55.7% higher than Arizona's (\$109.16 vs. \$70.10 per acre) and in citrus California growers' regulatory compliance cost was 994.7% higher than Texas's (\$347.12 vs. \$31.71 per acre).
- Hamilton and McCullough (2018) updated the 2006 study that documented the regulatory costs on a commercial-scale head lettuce grower in the Salinas Valley. The results of this case study show that, for this lettuce grower, production costs in 2006 were \$8,793 per acre. Production costs in 2017 were

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- FH-4 cont. ↑ \$10,977 per acre, an increase of 24.8% from 2006 (\$109.16 per acre or 1.26% of total production costs) to 2017 \$977.30 per acre, or 8.90% of total production costs, but the costs of regulatory compliance have risen by 795%.
- FH-5 ↑ Resource and Market Uncertainty: In addition, implementation of the Sustainable Groundwater Management Act will likely result in changes in groundwater (GW) availability in times of drought and will increase upward pressure on existing pumping fees (already not uniform across central coast region), perhaps implementing stricter flow metering and new GW extraction fees in regional basins where currently none exist. We growers are now facing new uncertainty, beyond just drought impacts, as the functional, operational definitions of sustained GW supply and demand are being assessed and, inevitably debated. For our operations in Santa Clara and San Benito counties, the inability of the State Water Project and the federal Central Valley Project to reliably deliver contracted water supplies will likely eliminate a substantial amount of water that is critical for recharging the groundwater basins where we farm (ACWA, 2014). The loss of reliable supplies destined for GW recharge will mean that our past investments in local water systems and the agricultural uses long supported by management of the State's surface water and groundwater resources are now at risk.
- FH-6 ↑ Recent market impacts and continuing operational uncertainty due to the COVID pandemic will have unknown residual negative effects in 2020, perhaps into 2021. Currently, each operational day is impacted by COVID restrictions, and a recent heat spell has further created challenges for maintaining product quality. While we recognize that there is an existent court mandated date for adoption of 4.0., this is also a compelling moment for all parties to perhaps re-convene and re-think the structure or phasing of requirements, particularly for 2021.
- FH-7 ↑ Has the Board and staff considered the likely impact of annual N fertilizer use restrictions on marketable yield and the most efficient use of land resources?
- FH-7 ↑ In our company, the efficient use of N fertilizer is critical, and our annual crop planning and end of year analyses focus on our efficacy through an economic and environmental lens. The immediate future questions and challenge if these regulations are adopted, are whether GCF will still have most options to consistently produce high yielding marketable crops that meet current standards of quality (color, size, shelf life) at all stages of each growing season. Our markets are unlikely to alter their standards, and if necessary, production may likely shift out of the central coast region or state.
- FH-8 ↓ Unintended Consequences: Additional economic impacts will arise if growers begin to compete more intensely for the 'best ground', meaning the most productive soil and water resource quantity/quality. Our land costs are fixed, if not increasing each year, whether land taxes or landowner lease re-negotiations. Implementation of the operational and riparian set-backs will automatically result in land-idling and land use changes because commercial crop production is prohibited in such areas. This could cause even further 'divide' between small farms and large, well capitalized corporate entities, as well as, causing some lands to be fallowed. If this were to occur in areas within or adjacent to our expanding

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- FH-8 ↑ urban areas, pressure might increase for zoning changes, development, and result in a critical unintentional impact, a reduction in open space that provides GW recharge just as supplies are being questioned-restricted.
- FH-9 ↑ How will you proceed if one ranch falls into two (2) GW aquifers or 4.0 GW Phases?
- FH-10 ↑ Groundwater Trends: There are critical reasons for GW monitoring trends to be based on sample data from dedicated monitoring wells, strategically located within a well characterized sub-aquifer boundary. Growers should NOT be required to pay for construction of a GW monitoring network.
- FH-11 ↑ Individual groundwater trend monitoring will be difficult to substantiate trends due to groundwater movement in any aquifer or sub-basin, and using ag production wells for this makes no technical sense. The travel time to a monitoring screen and the travel time distribution of pumped wells appear to be a key factor in effectively demonstrating trends and trend reversal. Age dating should be employed as an effective tool for trend detection. As example of well-established approaches, the Netherlands uses the national and regional scale monitoring networks that were established between 1980 and 1995 (Broers, 2010b). Broers et. al. (2010a) define that Trend analysis techniques must aim to reduce the variability which is not related to the anthropogenic changes. A Third Party Program for GW Trends Analysis, that could acquire public funding for design and construction is essential.
- FH-12 ↑ While groundwater age and recharge characteristics (rapid versus slow) are considered for GW Phase priorities, why is surface soil texture class not a further consideration for Discharge Risk?
- FH-13 ↑ Crop Choice and Rotations: The proposed 4.0 regulations will have unknown impacts on crop choice, rotation flexibility, and will effectively 'penalize' high N crops with relative low harvest fractions (e.g. lots of N left in residues). Our ability to protect and maintain soil health (e.g. disease, insects, crop organic residue incorporation) will be impacted and compromised, as some common sense/essential rotation options may become impossible due to N fertilizer or total Discharge Limits. The Discharge Target and then Limits timelines are too short/aggressive, leaving growers of certain crops to face a future where these foods cannot be produced in the central coast region, not due to cost of production, but due to their inherent nature as a plant. In many crops, a variable proportion of the N taken up by the plants is removed with the harvested plant parts. Short cycle vegetable crops (lettuce, spinach), requiring less than ~180 lbs N/acre and that have a large proportion of the plant biomass harvested as product will require less trial, effort, and vigilance to meet proposed Targets and Limits from 2021-2026.
- FH-14 ↓ For GCF, of our most important crops, Bell peppers and Jalapeno (and other chili-types) appear destined to be effectively 'outlawed' in the coming proposed future. Our pepper crops are grown and produce for more than 3x times longer than a typical lettuce crop, with multiple harvests essential to the economy of the production system. Our plants must be large and strong to withstand stem and leaf loss at each pick, and the plant inherently has a relatively high N uptake requirement. While substantial quantities of N maybe applied as fertilizer for early planted peppers (< 350 lbs N/acre), a correspondingly large amount of that N is removed in high yield production (one UCCE study in our fields estimated up to 140 lbs accumulated by harvested fruit). The proposed Fertilizer Limit of

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- FH-14 cont. ↑ eventually 300 lbs N/acre/year and the 100 lbs N/acre of GW Discharge by 2040 may be impossible for our company to meet without limiting crop cycle duration (and yield), as well as, additional post-cropping mitigation practices and substantial additional per acre costs.
- FH-15 ↓ The proposed Discharge Limits will (without a miracle variety being developed) prevent early planting and/or extended harvest windows effectively limiting cropping and our potential company-wide yields/revenue options.
- FH-16 ↓ Incentivize More and More Wisely: Our company is willing to consider alternative, progressive practices to increase N efficiency, if the Board is willing to seek 'collaborative incentives' funding, targeted research support, and/or possibly agreements to fully or partially offset increased costs that growers will have.
- FH-17 ↓ Are you planning to add cover cropping and/or crop residue management incentives?
- FH-18 ↓ We are NOT in favor of similar 'hide the N' incentives like the compost discount. We feel strongly that discounting the amount N in certain inputs (after all turning in cover crops is certainly an N input, particularly legumes) goes 180 degrees counter to the desired outcomes for water quality. We do not want to create the possible scenarios where your adopted approach to incentives actually has potential to lead to greater (and not documented) nitrate-N discharge loads to GW, thereby causing staff and Board to enact even more stringent rules and enforcement schemes.
- FH-19 ↓ Improving groundwater quality is important to GCF and most growers, but it must be done in a balanced and collaborative manner. These draft recommendations could make it impossible across all of our ranches to grow more than one of our current vegetable crops per year in our Central Coast region cropping systems, well before 2050. We are concerned that as staff and the Board turn to a General WDR permit to enhance enforcement capability through Targets and Limits, that this has led to questionable non-scientific assumptions and justifications of required timelines and grower efforts to meet objectives. The decreasing collaborative engagement in partnership with agriculture (growers, UCCE scientists and advisors, CCAs, consultants, suppliers, and organizations) is simply not the best path to our shared goals for a sustainable agriculture and groundwater resources.

Sincerely,

Ian Teresi
Director of Farm Operations
George Chiala Farms Inc.

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Response to Comment FH-1

This comment expresses general opposition and concerns related to regulatory costs and adverse economic impacts resulting from the implementation of DAO 4.0. Specifically, this comment identifies the cumulative effects of regulatory costs and potential impacts to the California agriculture industry. In response to general opposition, refer to Master Response 2.1.2. In response to concerns related to potential adverse economic impacts from DAO 4.0, refer to Master Response 2.9.1. In response to comments related to the DEIR's analysis of economic impacts, including CEQA Guidelines compliance requirements and the adequacy of the DEIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment FH-2

This comment expresses concerns related to adverse economic impacts resulting from the implementation of DAO 4.0. Specifically, this comment identifies economic pressures on small farms and potential indirect changes to the physical farming environment. In response to concerns related to potential adverse economic impacts from DAO 4.0, refer to Master Response 2.9.1. In response to comments related to the DEIR's analysis of economic impacts, including CEQA Guidelines compliance requirements and the adequacy of the DEIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment FH-3

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.7; and 2.1.4.

Response to Comment FH-4

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.1.5; 2.1.7; and 2.1.4.

Response to Comment FH-5

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.1.11.

Response to Comment FH-6

This comment is summarized and responded to in Master Response 2.9.3.

Response to Comment FH-7

This comment is summarized and responded to in the following Master Responses: 2.1.11 and 2.3.10.

Response to Comment FH-8

This comment is responded to in Master Response 2.8.8.

Response to Comment FH-9

This comment is summarized and responded to in Master Response 2.1.4.

Response to Comment FH-10

This comment is summarized and responded to in the following Master Responses: 2.4.1 and 2.4.4.

Response to Comment FH-11 through FH-12

This comment is summarized and responded to in Master Response 2.4.1.

Response to Comment FH-13

This comment is summarized and responded to in the following Master Responses: 2.1.8 and 2.3.3.

Response to Comment FH-14

This comment is summarized and responded to in Master Response 2.3.10.

Response to Comment FH-15

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.6.6.

Response to Comment FH-16

This comment is summarized and responded to in Master Response 2.1.11.

Response to Comment FH-17 through FH-18

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment FH-19

This comment is summarized and responded to in Master Response 2.1.2.

3.2.6 Individuals

Letter FI: Marla Anderson (March 26, 2020)

Letter FI

From: [Marla Anderson](#)
To: AqNOI_WB@Waterboards
Subject: Comments- Draft Ag. 4 and Draft EIR
Date: Thursday, March 26, 2020 9:33:20 AM
Attachments: [comments-Draft Ag 4.doc](#)
[Comments-Draft EIR.doc](#)

EXTERNAL:

Please review and consider the attached comments in making final revisions to Ag Order 4 and the EIR. Thank you for helping to protect our drinking water in North Monterey County which has become undrinkable due to farming practices.

Sincerely, Marla Anderson

Comments - March 26, 2020**Draft Agricultural Order 4.0****Dated Feb, 2020**

FI-1

From : Marla Anderson- 1). 40 year resident of rural North Monterey County in Pajaro Valley aquifer and watershed region, 2). Owner of private well and manager of a neighborhood small water system. 3). Bachelor of Science and extensive experience in environmental and land use planning. 4). 37 years owner and operator of small farm

Agricultural Order #4

FI-2

1). Table B-2. Surface Water Priority Areas- Priotization does not reflect known data

x	HUC-8 Name	Surface Water Priority
18060008	Santa Maria	Priority 1
18060005	Salinas	Priority 2
18060002	Pajaro	Priority 3
18060015	Monterey Bay	Priority 3
18060010	Santa Ynez	Priority 3

Why are lower PV ground and surface waters not shown as Priority 1 or 2 when Elkhorn Slough headwaters and groundwater areas (along Carneros Creek) have nitrate levels that are off the charts during peak run-off ?

Monterey County Out of Compliance Local & State Small Water Systems (SWS) as of August 2018*

2702795	105C	LOCAL SMALL WS	JENSEN RD WS#2	nitrate	74.2
2700573	105A	LOCAL SMALL WS	JOHNSON RD WS #01	nitrate	24.3
2702381	105B	LOCAL SMALL WS	JOHNSON RD WS #03	nitrate	39.4

FI-3

2). Why are "all other crops" given the HIGHEST automatic nitrogen application limit of 500 pounds per acre/year. What about a farm that is being used for ranching or other low nitrogen using farm purposes? Does 500 lbs/year/acre enable some farms to increase or convert their farm land to higher nitrogen using crops and bring it down in a **higher fashion** than otherwise allowed using **C.1-2**?

Table C.1-1. Time Schedule for Fertilizer Nitrogen Application Limits	AFER =	Year	Target or Limit
Crop			
Broccoli	295	2022	Limit
Cauliflower	300		
Celery	375		
Lettuce	275		
Spinach	240		
Strawberry	330		
All Other Crops	500		

3). If above crops such as broccoli, cauliflower, lettuce, etc are already at or below 300 lbs/acre/year, why doesn't the need for reducing nitrogen use begin in 2022 instead of 2026?

FI-4

Table C.1-2. Time Schedule for Nitrogen Discharge Targets and Limits Compliance Pathway 1

AFER + C x ACOMP + AIRR – R =

500

400

300

200

150

100

50

Compliance Pathway 2

AFER + C x ACOMP = R

2024

2026

2030

2035

2040

2050

Year

2022

Target or Limit

Target

Target

Limit

Limit

Limit

Limit

Limit

4). 30 years to bring nitrogen use into non-contamination compliance IS TOO LONG!

There needs to be a different AFER reduction table that accelerates reduction over a 20 year timeframe instead of a 30 year timeframe. The table needs to show a reduction schedule based on the farm's 2022 AFER instead of allowing a farm with a typical Afer of 300 to continue business as usual until 2026. Example below

FI-5

2022 Nitrogen Use Level	Years to Reach 50 lbs/acre/year
450-500	20
400-450	19
350-400	18
300-350	17
250-300	16
200-250	15
150-200	14
100-150	13
50-100	12
0-50	NA

5). Part 2, Section C.4. Sediment and Erosion Management for Surface Water Protection-

14. Dischargers whose ranches have impermeable surfaces must report on the status of having their SEMP developed by a qualified professional and their sediment and erosion control and stormwater management practices electronically in the ACF, **as described in the MRP. Where is is this described in the MRP?**

FI-6

FI-7 **6). What avenues are available to the public for enforcement of provisions of Ag. 4? Where are these described in Ag. 4?** For example, if we are aware of farmers who have take out riparian vegetation and/or have encroached directly up to the vegetation, what avenue does the public have for reporting this and other violations? How responsive will the State or County agencies be to citizen complaints? What priority will citizen complaints be given?

FI-8 **7). Appendix D – Mitigation Monitoring and Reporting Program** - The program **needs to include the addition of additional testing procedures during drought periods lasting beyond two years**. During drought years /periods contaminants do not leach into surface waters and aquifers. To prevent under-reporting of chemical use from farming because drought conditions have not enabled chemicals to be leached down or out from the subsoil, increased sub-soil monitoring needs to be done during these periods (as opposed to just testing surface or groundwater).

FI-9 **8). Appendix D – Mitigation Monitoring and Reporting Program**- The program needs to include a procedure by which the State will verify testing results submitted by individuals and /or Third Parties. This can include re-testing of waters in select areas and comparison with nearby results from nearby State or County monitored waters

FI-10 **9). Appendix D – Mitigation Monitoring and Reporting Program** - The program **needs to include the addition of additional testing procedures during drought periods lasting beyond two years**. During drought years /periods contaminants do not leach into surface waters and aquifers. To prevent under-reporting of chemical use from farming because drought conditions that have not enabled chemicals to be leached down or out from the subsoil, increased sub-soil monitoring needs to be done during these periods (as opposed to just testing surface or groundwater).

DRAFT EIR

FI-11 1). Table ES-2, Summary of Impacts Impact AG-1- The table states "No feasible mitigation is available". **This needs to be changed to LSM (less than significant with mitigation incorporated). HERE ARE SOME MITIGATION MEASURES FOR THIS:** a

FI-12 a). Farm owners can urge County agencies to adopt and maintain land use designations and policies that protect land for farming uses.

FI-13 b). Farm owners can use nitrate reduction methods in farming practices such as described in Table 2-9.

- FI-14 c). State and County water agencies can provide needed assistance to farm owners to assist in implement nitrate and pesticide reductions as described in Table 2-9 and in Agricultural Order No. 4.
- FI-15 2). Table ES-2, AG-2 -Conflict with existing zoning for agricultural use or Williamson act contract. The table states "No feasible mitigation is available". **This needs to be changed to LSM (less than significant with mitigation incorporated)**. The same mitigation measures described in 1.a,1.b, and 1.c above can be implemented.
- FI-16 3). Table 2-9 "Reasonably Foreseeable Management Practices As Determined from Available Literature"
- FI-17 a). **Needs to include "fallowing"** as a distinct practice separate from planting and managing cover crops and rotation. Fallowing should be an identified practice for each of the four categories of impact reduction shown in the chart.
- b). **Needs to include bullet points** under this practice that describes specific measures to "Manage soil health to improve water and nutrient retention and reduce leaching".
- FI-18 4). Appendix D – Mitigation Monitoring and Reporting Program - The program **needs to include the addition of additional testing procedures during drought periods lasting beyond two years**. During drought years /periods contaminants do not leach into surface waters and aquifers. To prevent under-reporting of chemical use from farming because drought conditions that have not enabled chemicals to be leached down or out from the subsoil, increased sub-soil monitoring needs to be done during these periods (as opposed to just testing surface or groundwater).
- FI-19 5). Appendix D – Mitigation Monitoring and Reporting Program- The program needs to include a procedure by which the State will verify testing results submitted by individuals and /or Third Parties. This can include re-testing of waters in select areas and comparison with nearby results from nearby State or County monitored waters.

Comments - March 26, 2020

Draft Environmental Impact Report

Dated Feb, 2020

- FI-20 From : Marla Anderson- 1). 40 year resident of rural North Monterey County in Pajaro Valley aquifer and watershed region, 2). Owner of private well and manager of a neighborhood small water system. 3). Bachelor of Science and extensive experience in environmental and land use planning. 4). 37 years owner and operator of small farm
- FI-21 1). Table ES-2, Summary of Impacts Impact AG-1- The table states "No feasible mitigation is available". **This needs to be changed to LSM (less than significant with mitigation incorporated). HERE ARE SOME MITIGATION MEASURES FOR THIS:** a
- FI-22 a). Farm owners can urge County agencies to adopt and maintain land use designations and policies that protect land for farming uses.
- FI-23 b). Farm owners can use nitrate reduction methods in farming practices such as described in Table 2-9.
- FI-24 c). State and County water agencies can provide needed assistance to farm owners to assist in implement nitrate and pesticide reductions as described in Table 2-9 and in Agricultural Order No. 4.
- FI-25 2). Table ES-2, AG-2 -Conflict with existing zoning for agricultural use or Williamson act contract. The table states "No feasible mitigation is available". **This needs to be changed to LSM (less than significant with mitigation incorporated).** The same mitigation measures described in 1.a,1.b, and 1.c above can be implemented.
- FI-26 3). Table 2-9 "Reasonably Foreseeable Management Practices As Determined from Available Literature"
- FI-27 a). **Needs to include "fallowing"** as a distinct practice separate from planting and managing cover crops and rotation. Fallowing should be an identified practice for each of the fours categories of impact reduction shown in the chart.
- b). **Needs to include bullet points** under this practice that describes specific measures to "Manage soil health to improve water and nutrient retention and reduce leaching".
- FI-28 4). **Appendix D – Mitigation Monitoring and Reporting Program** - The program **needs to include the addition of additional testing procedures during drought periods lasting beyond two years.** During

FI-28
cont.



drought years /periods contaminants do not leach into surface waters and aquifers. To prevent under-reporting of chemical use from farming because drought conditions that have not enabled chemicals to be leached down or out from the subsoil, increased sub-soil monitoring needs to be done during these periods (as opposed to just testing surface or groundwater).

FI-29



5). [Appendix D – Mitigation Monitoring and Reporting Program](#)- The program needs to include a procedure by which the State will verify testing results submitted by individuals and /or Third Parties. This can include re-testing of waters in select areas and comparison with nearby results from nearby State or County monitored waters.

Response to Comment FI-1

Thank you for your comment.

Response to Comment FI-2

This comment is summarized and responded to in Master Response 2.5.4.

Response to Comment FI-3 through FI-4

This comment is summarized and responded to in Master Response 2.3.10.

Response to Comment FI-5

This comment is summarized and responded to in Master Response 2.3.2.

Response to Comment FI-6

This comment is summarized and responded to in Master Response 2.7.5.

Response to Comment FI-7

This comment is summarized and responded to in Master Response 2.1.9.

Response to Comment FI-8

This comment recommends that the mitigation monitoring and reporting program consider incorporating additional testing procedures during drought periods lasting beyond two years. The comment expresses concern related to under-reporting of chemical use during drought conditions. The CCWB asserts that the proposed monitoring requirements in RAO 4.0 are adequate for achieving the goals and objectives of the Proposed Project, including the protection of water quality from chemical use. No changes to the DEIR have been made in response to this comment.

Response to Comment FI-9

This comment recommends that the mitigation monitoring and reporting program consider incorporating additional testing procedures for the verification of testing results submitted to the State. The CCWB continues to assert that the proposed monitoring requirements in RAO 4.0 are adequate for achieving the goals and objectives of the Proposed Project. No changes to the DEIR have been made in response to this comment.

Response to Comment FI-10

This comment recommends that the mitigation monitoring and reporting program consider incorporating additional testing procedures during drought periods lasting beyond two years. The comment expresses concern related to under-reporting of chemical use during drought conditions. The CCWB asserts that the proposed monitoring requirements in RAO 4.0 are adequate for achieving the goals and objectives of the Proposed Project, including the protection of water quality from chemical use. No changes to the DEIR have been made in response to this comment.

Response to Comment FI-11

This comment recommends revising the impact determination for Impact AG-1 (*Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use*); from, ‘Significant and Unavoidable,’ to ‘Less than Significant with Mitigation.’ The commenter includes proposed mitigation in Comments FI-12, FI-13, and FI-14.

According to the CEQA Guidelines, mitigation measures must be feasible, practical, specific, enforceable, effective, and roughly proportional to the project impacts. Further, CEQA requires that CEQA documents disclose whether and how those recommended mitigation measures will reduce significant impacts to less-than-significant levels. As explained below in Responses to Comments FI-12, FI-13, and FI-14, the mitigation measures provided by the commenter are not practical, sufficiently specific, or enforceable, and therefore would not be effective, such that impacts would be reduced to less-than-significant levels. Because the CCWB does not believe that the proposed mitigation (see Comments FI-12, FI-13, and FI-14) would meet these aforementioned CEQA requirements, no changes to the DEIR have been made in response to this comment.

Response to Comment FI-12

See Response to Comment FI-11. The CCWB does not have the authority to force local jurisdictions to adopt or maintain land use designations and/or policies to protect land for farming uses. For this reason, the proposed mitigation measure would be neither enforceable, practical, nor effective; no changes to the DEIR have been made in response to this comment.

Response to Comment FI-13

See Response to Comment FI-11. The CCWB agrees that farm owners may elect to implement nitrate reduction methods, such as those presented in Table 2-9 of the DEIR, to reduce potential impacts related to farmland and the conversion of farmland. However, strict requirements, or mitigation measures, requiring adherence with these measures would not be practical as the ability for agricultural operations to implement measures would be highly variable, dependent on the specific ranch layout and the design of specific management practices. DAO 4.0 does not specify the manner of compliance for individual operations because it is not possible to determine which ranches will implement which management practices in which locations. For this reason, no changes to the DEIR have been made in response to this comment.

Response to Comment FI-14

See Response to Comment FI-11. While State and County water agencies may provide needed assistance to farm owners to assist in the implementation of nitrate and pesticide reduction measures, the CCWB does not have the authority to force local or State jurisdictions to provide this assistance. Because the proposed mitigation measure would not be enforceable, no changes to the DEIR have been made in response to this comment.

Response to Comment FI-15

See Responses to Comments FI-11, FI-12, FI-13. And FI-14. Because the CCWB does not believe that the commenter’s proposed mitigation (see Comments FI-12, FI-13, and FI-14) would be feasible and/or enforceable, and therefore, it is unclear as to whether these mitigation

measures could effectively reduce significant impacts to less-than-significant levels, no changes to the DEIR have been made in response to this comment.

Response to Comment FI-16

This comment includes recommendations for including additional reasonably foreseeable management practices (e.g., fallowing) as part of Table 2-9 of the DEIR. Fallowing was added as a reasonably foreseeable management practice in Table 2-9 of the FEIR.

Response to Comment FI-17

This comment includes a recommendation to include additional bullet points describing practices for managing soil health to improve water and nutrient retention and reduction of leaching as part of Table 2-9 of the DEIR. Practices for soil health were added in Table 2-9 of the FEIR.

Response to Comment FI-18

This comment recommends that the mitigation monitoring and reporting program consider incorporating additional testing procedures during drought periods lasting beyond two years. The comment expresses concern related to under-reporting of chemical use during drought conditions. The CCWB asserts that the proposed monitoring requirements in RAO 4.0 are adequate for achieving the goals and objectives of the Proposed Project, including the protection of water quality from chemical use. No changes to the DEIR have been made in response to this comment.

Response to Comment FI-19

This comment recommends that the mitigation monitoring and reporting program consider incorporating additional testing procedures. The CCWB asserts that the proposed monitoring requirements in RAO 4.0 are adequate for achieving the goals and objectives of the Proposed Project. No changes to the DEIR have been made in response to this comment.

Response to Comment FI-20

Thank you for your comment.

Response to Comment FI-21

See Response to Comment FI-11.

Response to Comment FI-22

See Response to Comment FI-12.

Response to Comment FI-23

See Response to Comment FI-13.

Response to Comment FI-24

See Response to Comment FI-14.

Response to Comment FI-25

See Response to Comment FI-15.

Response to Comment FI-26

See Response to Comment FI-16.

Response to Comment FI-27

See Response to Comment FI-17.

Response to Comment FI-28

See Response to Comment FI-18.

Response to Comment FI-29

See Response to Comment FI-19.

Letter FJ: Janine Butler (April 7, 2020)**Letter FJ**

From: jbutler8591@aol.com
Sent: Tuesday, April 7, 2020 4:25 PM
To: AgNOI, WB@Waterboards
Subject: Comments on Draft AG Order
Attachments: Farm behind house 4 7 2020.jpg

EXTERNAL:

Hello

FJ-1 Thank you for putting this together for our county. It must be overwhelming!
 I appreciate that I had a chance to read through most of this and I did because I have a very personal interest. I have a 100 acre uphill farm behind my house. See attached picture.
 We have experienced many problems with their lack of water runoff management.

FJ-2 My back yard has been flooded with farm water runoff. They have not maintained or manged their water running down hill. Last year, a new owner took over the farm and it became much worse because they planted strawberries (plastic). My understanding is that best practice is contour planting...versus rows that point down to our homes below. This planting has caused numerous issues in the last 2 years. Flooded yards, overflowing catch basins, mud along hyway 1 and mud on our local residential streets. And there has been no penalty or fine to this farm for their irresponsibility! It appears that are significant fines that can be assess if this happens after the new draft gets implemented.

FJ-3 I realize that Ag is very important to our county, but I do think these farmers have some responsibility to their neighbors and to be good neighbors. I hope this passes and gets these farms to comply to the standards going forward. Additionally I hope we can report violations as a citizen and expect they will be responded to and have the farm dealt with appropriately.

Thank you

Janine Butler
 2552 Snowcone Place
 Arroyo Grande



Response to Comment FJ-1

Thank you for your comment.

Response to Comment FJ-2

This comment is summarized and responded to in Master Response 2.1.9.

Response to Comment FJ-3

This comment is summarized and responded to in Master Response 2.1.1.

Letter FK: Michael Thomas (June 22, 2020)**Letter FK**

From: [6082Thomas_](#)
To: [AgNOI_WB@Waterboards](#); [matthew.keeling@waterboards.ca.gov](#); [Tryon_Thea@Waterboards](#)
Subject: comments on Ag order 4.0 renewal process
Date: Monday, June 22, 2020 11:34:08 AM
Attachments: [comments 2020.pdf](#)

EXTERNAL:

Comments attached.
Thanks
Michael Thomas

June 22, 2020

Comments Regarding Ag Order 4.0 Renewal

TO: Central Coast Water Board and future Courts

FK-1 These comments are intended for the Water Board and the Courts that will eventually hear arguments regarding the final agricultural permit. I worked for the Central Coast Water Board for 31 years. I was the Assistant Executive Officer and lead enforcement officer from 2005 until 2017, and I worked on the previous two Ag Orders.

FK-2 The draft Ag Order includes discharge limitations to protect and restore water quality objectives and schedules for implementation. While this is standard practice for other Water Board programs, it has been a herculean staff effort regarding irrigated agriculture given the political pressure to prevent regulation of ag waste discharges. That staff were able to do this work and publish the draft in the antithetical internal environment that existed for several years is testament to their extraordinary commitment to their jobs and the public trust.

FK-3 However, State and Regional Water Board members have created an entrenched *underground regulations* approach to irrigated agriculture, opposing the law, Water Board policies and plans, and the public trust doctrine. The underground regulations approach provides *safe harbor* from law and policies for irrigated agriculture via the Ag Orders and prevents Water Board staff from implementing a program that would protect and restore water quality objectives. The Ag Order renewal process will not be valid until this larger issue is corrected. I describe the illegal approach and its underlying layers of misdirection in hopes that the approach is not continued with the current Ag Order renewal and subsequent implementation.

I also offer suggestions for establishing a credible process, including the adoption of a set of ethical principles to ensure the Ag Order renewal is based on the Water Board's mission.

Discussion

FK-4 The plain language meaning of the Porter Cologne Water Quality Control Act and the Water Board's plans and policies is to protect and restore water quality objectives. Objectives, such as 'no toxicity in surface waters' and 10 mg/l nitrate (as nitrogen) in groundwater, are established law and degradation beyond the objectives is prohibited.

FK-5 Protecting the objectives requires limiting waste discharges in the real-world tangible sense, where the waste limit is defined and measurable, and waste discharges are measured, so the public knows whether the Water Board is doing its fundamental job.

FK-6 Defined and enforced waste discharge limits are critically important in cases of high risk to water quality, or where egregious waste is causing severe degradation beyond established water quality objectives, as in this case. For any other type of discharger, the Water Board would define and enforce strict waste discharge limits, adopt prohibitions, and require cleanup and abatement.

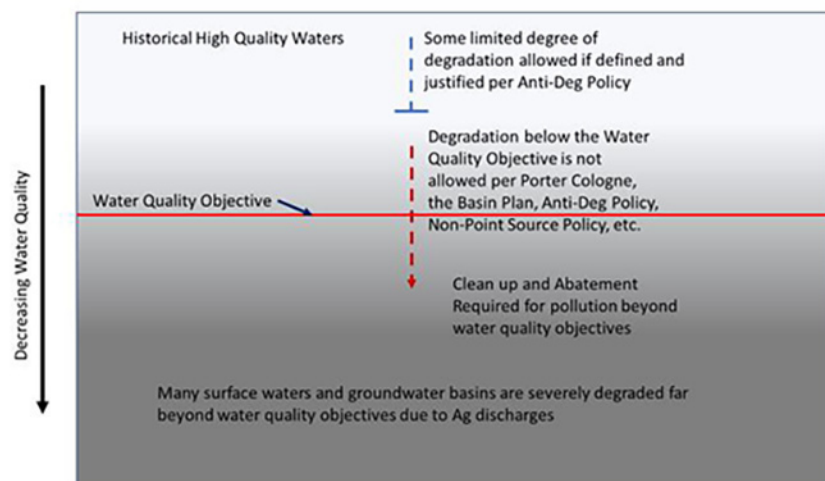
FK-7 The law and policies are not subject to being disregarded or substituted in permits or orders. There is no legal avenue for Water Board members to allow degradation of surface and groundwater quality

FK-7
cont. ↑ beyond established objectives, yet the Water Boards have been consciously doing just that, even for sole sources of drinking water on a regional scale.

FK-8 For example, the Anti-Degradation Policy has two main limitations. First, the policy does not allow degradation of historically high-quality waters unless the Water Board does an analysis showing the degree of degradation that will occur and demonstrates a justification for the degradation as being for the maximum benefit to the public. The process must be completely transparent and public. Only a defined and limited incremental degradation below the historically high quality is allowed. If this transparency is not provided, the public and the Courts cannot evaluate whether the Water Board is complying with the laws and policies.

FK-9 Second, the Anti-Deg Policy does not allow degradation beyond established water quality objectives. Porter Cologne, the Basin Plan, and the Non-Point Source Policy also do not allow degradation beyond water quality objectives. Nevertheless, all previous Ag Orders, and the current Ag Order, and the State Board's "precedential requirements," allow unlimited waste discharge and consequent degradation far beyond water quality objectives, including for drinking water. See Figure 1.

Figure 1: Allowable degradation is strictly limited.



The Courts have affirmed the Anti-Degradation Policy and its implementation in a major decision against the Water Boards in 2012 (see *Asociación de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Board* (2012) 210 Cal.App.4th 1255 (AGUA) decision.) Despite the Court's decision, the State and Central Coast Water Board continue to violate the Anti-Deg Policy.

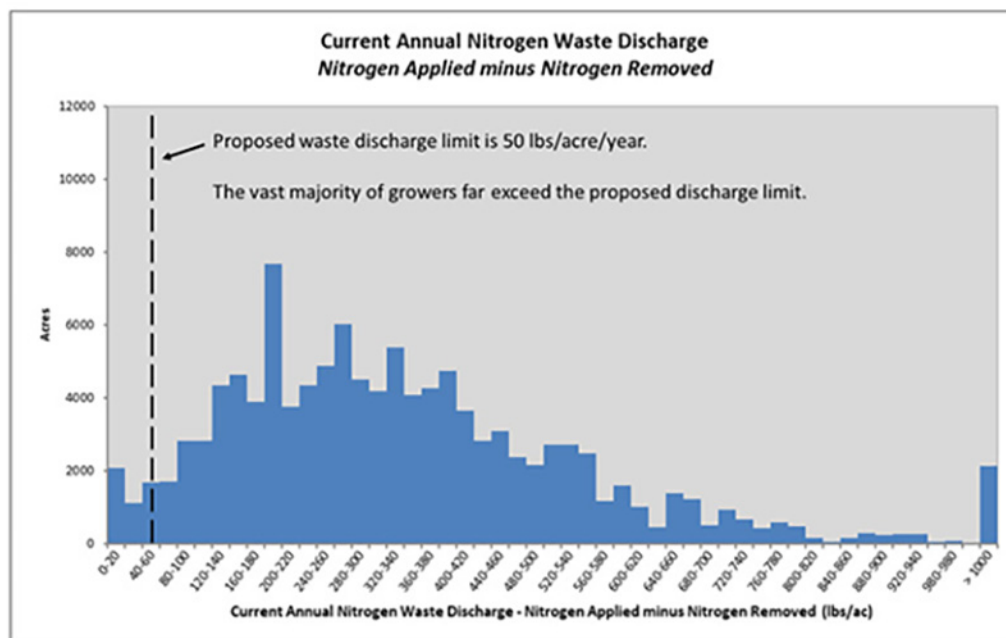
The Difficult Path to Here

FK-10 ↓ Understanding recent history is important for determining if the Water Boards can renew the Ag Order in a credible process. The 2004 Ag Order allowed unlimited waste discharges and unlimited

FK-10
cont.

degradation. The Order contained no discharge limits or load limits to protect water quality and was only enforceable in terms of administrative type items (enrollment, fees, submitting reports). Internally, Water Board staff and legal counsel routinely discussed the illegality of the 2004 Ag Order when considering renewal. Consequently, Water Board staff drafted a 2010 Ag Order with discharge limits to achieve water quality objectives in surface waters and groundwater, with schedules and verification monitoring to assure compliance. In the renewal process, the Regional Board and State Board members removed all enforceable discharge limits. The State Board inserted a fabricated process based on minimizing waste discharges via management practices that are unattached to any discharge limitations (and where trying is complying). The same false approach is continued in Ag Order 3.0 and the State Water Board's 2018 precedential requirements. The management practices approach guarantees mass waste discharges that will continue degradation far beyond water quality objectives. Why? Because there are no waste discharge limits, and management practices are focused on crop yield and crop need. The current farming methodology of applying fertilizer to open ground produces mass waste discharges that are many times greater than a meaningful waste discharge limit would be (such as 50 lbs/acre/year). See Figure 2 (from Water Board staff's presentation).

Figure 2: The vast majority of growers far exceed any meaningful waste discharge limit using current farming methodology.



For this discussion, farm methodology is the general way fertilizer is applied to hundreds of thousands of acres, above drinking water supplies, on the Central Coast. Management practices, on the other hand,

FK-10
cont.

are actions to adjust certain variables, such as reducing fertilizer applied from 3 times the crop need to 2 times the crop need. Or applying irrigation water more efficiently. The overall methodology that produces the mass waste loading that causes the violation of receiving water objectives does not change. Management practices in this scenario have nothing to do with waste discharge limits required in the context of Porter Cologne, the Basin Plan, the Non-Point Source Policy, and the Anti-Deg Policy. The Water Board's approach of management practices as a regulatory mechanism is misdirection to avoid establishing waste discharge limits. The other two key deficiencies in the program are to prevent the public and the Courts from seeing data regarding discharge activities, and not requiring monitoring programs that measure waste discharges.

FK-11

The management practices approach is confusing to the public, growers, and the Courts. The public assumes the Water Board is establishing waste discharge limits. However, growers think in terms of crop need and crop yield, and so interpret management practices in that context, not in terms of waste discharge limits. A grower is likely to say she cannot grow lettuce if there is a certain limit on applying fertilizer, therefore the limit is unjust. The Water Board usually responds with sympathy and says that is not the intent, and so the process goes down the never-ending twisty path of maintaining the status quo (crop need, crop yield, same methodology) and never getting to waste discharge limits. The more honest answer to the grower would be: Correct. You likely cannot grow lettuce with the same yield using the same methodology and meet the discharge limit. Your methodology must change to reduce the waste discharge to the discharge limit. The industry must advance according to the new reality of waste discharge limits.

FK-12

The Water Board is familiar with waste discharge limits that require fundamental changes in the activity that is causing the discharge, such as:

A prohibition on discharges for a community using septic tanks, such that a wastewater treatment facility and distribution system must be built and retrofitted at a cost to the homeowners of hundreds of millions, backed up by Cleanup and Abatement Orders issued to individual homeowners.

Requirements that change the fundamental design, installation, and operation of tens of thousands of underground tanks throughout the State, at a cost of hundreds of millions.

Requirements that cause the closure of dumps, and the relocation and construction of sanitary landfills and hazardous waste facilities, at a cost of billions.

Requirements that cause retrofitting and relocation of wastewater treatments plants at a cost of tens to hundreds of millions.

Requirements that cause massive cleanup projects like Guadalupe Beach and Avila Beach and the Olin Corporation that cost hundreds of millions.

Requirements that cause fundamental changes in cannabis growing throughout the entire State (the other irrigated agriculture activity).

Requirements that cause municipalities to create entire programs and development infrastructure design changes to control stormwater, at a cost of hundreds of millions.

FK-12

cont.



Water Board requirements that cause fundamental changes to industrial activities and land use activities are routine, except for irrigated agriculture.

Such Legerdemain

FK-13

Prior to 2012, the Central Coast Water Board office operated on a set of defined principles and ethics, communicated internally and externally on a continuous basis by the Executive Officer. We were required to apply these principles and ethics to achieve our mission to protect and restore water quality objectives, regardless of political or other pressures. The Executive Officer also provided a buffer between staff and improper influence from individual Board members, politicians, or others that would create behind-the-scenes directives to program staff that may be counter to the mission and constitute underground regulations.

In 2012, with new leadership, the office descended into ethical chaos and dysfunction centering on the Ag program. New leadership directed staff to take no actions that would upset the Ag industry or the governor's office. This included directing enforcement staff to stop working on replacement water orders, to stop trying to inform the public of drinking water contamination, and to not disclose any Ag information to the public. There were no boundaries between the Board and program staff, and many closed-door sessions occurred. This created intense internal turmoil for several years.

FK-14

A rare public glimpse into this dysfunction occurred on July 31, 2014, as Pearl Kan of the California Rural Legal Assistance addressed the Water Board in Santa Barbara and asked for the public disclosure of water quality data (drinking water data) as required by law. The Water Board's response to Ms. Kan was a low point in its history as the Board members rationalized why it was appropriate to not disclose public data regarding the public's contaminated drinking water, including saying that the public could not understand the data. The Board's legal counsel defended the action (albeit the defense was incomprehensible).

The Environmental Law Foundation sued the Water Board regarding the disclosure of data. The Court's October 2016 decision placed a spotlight on the Water Board's refusal to honor its most basic and important responsibilities to the public. The Court's decision stated what should not have to be stated:

Two pillars of the Water Quality Act are to protect the quality of community water supplies and to promote public access.

The public is entitled to know whether the Regional Board is doing enough to enforce the law and protect the public's water supplies.

The Court described the Water Board's actions as "*such legerdemain*" (trickery, deception, sleight of hand).

FK-15



The Court's description is accurate and unfortunately applies beyond the specific items in the lawsuit. In renewing the Ag Order in 2017 (Ag Order 3.0), Central Coast Water Board staff tried to explain the degree of degradation and non-compliance with the Anti-Deg Policy, and that the Order was not implementable or enforceable with respect to the waste discharges causing the degradation. State Water Board legal counsel intervened and directed that information made public had to be consistent with the legal arguments being made to the Court at the time, which were that the Ag Order protected water quality and was in compliance with applicable law and policies. The Ag Order 3.0 renewal was an

FK-15
cont.



likely an underground regulations process because the public was not informed of the non-compliance with policies, the degree of degradation being allowed beyond water quality objectives, that the Order was not enforceable with respect to waste discharges and degradation, not implementable with respect to 'management practices' as a control mechanism, and therefore served as safe harbor for illegal discharges.

FK-16



In February 2018, the State Board adopted "precedential" requirements for irrigated agriculture that further solidified the false narrative of "protecting water quality" via management practices relative to current farming methodologies. There are no waste discharge limits that will protect receiving water objectives. The precedential requirements simply perpetuate the status quo degradation. Information is kept secret via third parties, despite the wholesale degradation of public trust resources. Moreover, monitoring relies on Ag wells and domestic/municipal wells, which the Court already described as inadequate because by the time these wells are contaminated the damage that should have been prevented is already done (*Asociación de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Board* (2012) 210 Cal.App.4th 1255 (AGUA)). The purpose of monitoring requirements in a regulatory discharge permit is to act as a preventative measure to determine if regulatory waste discharge limits are being met; not to simply verify the long-term region-wide degradation of the receiving waters in the absence of waste discharge limits. A credible waste discharge permit includes waste discharge monitoring *where the discharge occurs*, well before the discharge can enter groundwater. The AGUA decision should have been an outline for Water Board Ag Orders:

In 2007, after decades of allowing most dairies to operate without any waste discharge requirements, defendant Central Valley Regional Water Quality Control Board (Regional Board) issued a general waste discharge order (Order) for the purpose of regulating the waste from existing milk cow dairies. The Order purports to prohibit the further degradation of groundwater, as is required by the state's antidegradation policy. However, the Order does not prohibit the discharge of waste to groundwater. Assuming that some dairy waste will reach the groundwater, the Order relies on groundwater monitoring to insure that the groundwater is not further degraded. We shall conclude that the uncontradicted evidence in the record before the Regional Board indicated that the Order's monitoring system of taking samples from domestic and agricultural supply wells is insufficient to detect groundwater degradation in a timely manner. Additionally, the Order contains no remediation measures in the event groundwater monitoring determines degradation has occurred...

Where, as here, the Regional Board is permitting an activity that may produce waste that will discharge into existing high quality waters, it may permit such activity only if it makes certain findings. The Regional Board must find that the activity (1) is consistent with the maximum benefit to the people of the state, (2) will not unreasonably affect beneficial uses, and (3) will not violate water quality standards. It must also find that any discharge to high quality water will be required to undergo the best practicable treatment or control of the discharge necessary to assure that no pollution or nuisance will occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained...

The wish is not father to the action. The Order finds that the beneficial domestic, agricultural, and other uses of the groundwater underlying the dairies will be protected by the Order, but the finding wholly depends upon the Order's prohibition of the further degrading of groundwater

FK-16
cont.

without requiring the means (monitoring wells) by which that could be determined. Because the monitoring plan upon which the Order relies to enforce its no degradation directive is inadequate, there is not substantial evidence to support the findings.

FK-17

All Central Coast Ag Orders suffer from the same gross deficiencies identified in the Court's decision above. In an ethical environment, Court decisions such as this would be required reading for the Water Board and staff and would provide directions for the Board's further actions. Unfortunately, the Court orders are largely ignored.

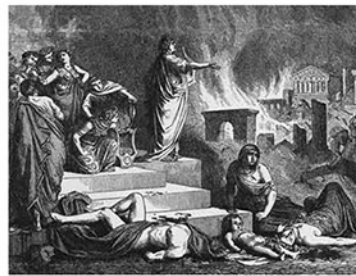
The Wish is not Father to the Action

The State Board's precedential requirements are a delay that allows mass discharges to continue unabated. A/R is not a waste discharge limit to protect water quality objectives in any sense. Fine tuning A/R while ignoring the mass waste discharge for years is in direct conflict with Porter Cologne and the Water Board's policies. The delay is even described in the precedential requirements:

FK-18

It is premature at this point to project the manner in which the multi-year A/R ratio target values might serve as regulatory tools. That determination will be informed by the data collected and the research conducted in the next several years. If we move forward with a new regulatory approach in the future, we expect to do so only after convening an expert panel that can help evaluate and consider the appropriate use of the acceptable ranges for multi-year A/R ratio target values in irrigated lands regulatory programs statewide.

Premature... A/R as a regulatory tool... Research... If we move forward... Several years... Another "expert panel..."



Nero Fiddles as Rome Burns

FK-19

Is Time of the Essence when Drinking Water is Contaminated on a Massive Scale?

In 1978, the State Board funded the Association of Monterey Bay Area Governments' study *Nonpoint Sources of Groundwater Pollution in Santa Cruz and Monterey Counties, California*, (1978 AMBAG Report). The 1978 AMBAG report documents the history of crops grown in the Salinas Valley, the shift to more fertilizer and irrigation intensive crops, increasing nitrate pollution in groundwater from croplands, quantification of nitrate sources, and measures to reduce nitrate loading from various sources including irrigated agriculture. The 1978 AMBAG Report also discussed regulating the amount

<p>FK-19 cont.</p>	<p>of fertilizer applied to control the excess waste discharge and protect groundwater (Chapter 9, pages 9-10):</p> <p><i>A relatively simple approach to minimizing the groundwater pollution impact of fertilizers would involve the regulations of fertilizer applications. Each additional increment of nitrogen fertilizer produces a smaller return in yield while the potential for leaching increases rapidly. This relationship is shown in Figure 9-2 based on data derived from a fertilizer experiment. Thus, a possible control procedure may consist of limiting the fertilizer application to levels which would enable the attainment of 85 to 90 percent of the maximum crop yield. The economic viability and acceptability of such a plan to farmers growing high-value crops is uncertain. Regulating the fertilizer application to coincide with crop requirements and soil conditions is a sound management practice. Nitrogen contained in leachate from cropped fields correlated well with excess applied fertilizer. Unfortunately, complete balance between crop needs and fertilizer application is hard to attain in the field, and the tendency has been to over-fertilize. [Emphasis added.]</i></p> <p>That was forty-two years ago. The plethora of scientific reports that have been published in the decades since further document degradation beyond water quality objectives on a regional scale, in violation of Porter Cologne, the Basin Plan, and every applicable Water Board policy, with no action by the Water Boards to limit the illegal waste discharge.</p>
<p>FK-20</p>	<p>The State Board's 1988 <i>Nitrate in Drinking Water Report to the Legislature</i> documented and affirmed the nitrate pollution problem (again):</p> <p><i>[This] report documents that nitrate contamination poses a quantitative threat to the supply of drinking water (primarily ground water resources) that is equal to or exceeds that of the toxics issues which have received so much public attention. [Executive Summary, Page i]</i></p> <p><i>Another example is the Salinas Valley where local officials estimate that by the year 2000 the ground water contained in most of the unconfined aquifers of the Salinas Valley will exceed the drinking water standard for nitrate. [Executive Summary, Page i]</i></p> <p><i>One concern that became apparent through conducting these efforts was that most of the data available on nitrate problems comes from the deeper municipal wells. The generally shallower individual domestic wells, of which there are tens of thousands in California, are not often tested. They are, however, more vulnerable to nitrate problems because they draw their water supply from the shallower water levels that are more likely to be polluted. [Page 10]</i></p> <p><i>The largest sources of nitrate in California ground water are those related to agricultural activities, in particular those which utilize the application of nitrogen fertilizers in one form or another. [Page 35] [Emphasis added.]</i></p>
<p>FK-21</p>	<p>The 2012 UC Davis report <i>Addressing Nitrate in California's Drinking Water</i> further documents the degradation of drinking water beyond objectives (again) and the disproportional impact on disadvantaged communities. The 2012 UC Davis Report estimates that irrigated croplands in the Salinas Valley contribute approximately 18,000 tons of <u>nitrogen</u> per year to groundwater, which is equivalent to approximately 79,000 tons of <u>nitrate</u>, or 158 million pounds of nitrate, leaching to groundwater per year (2012 UC Davis Report, Table 2, page 26).</p>

- FK-21 ↑ 18,000 tons of waste per year into sole source drinking water in the Salinas Valley, for decades, while Water Boards fiddle with management practices.
- FK-22 ↑ The State of California does not need yet another “expert panel” to spend yet more years studying an irrelevant ratio or other arcane aspects of management practices that maintain the status quo waste discharges. The State of California needs serious waste discharge limits, which should have been established forty-two years ago. The industry then would have adjusted to the limitations, as all other industries, municipalities, businesses, and homeowners had to do regarding their respective waste discharge limitations.
- FK-23 ↑ The State Board has also been involved in the concept of draft legislation that legalizes the waste discharge and the degradation, in exchange for relative pennies that would provide bottled water to those whose public trust resource is lost. How can the State Board hear petitions to Ag Orders, objectively, in the context of Porter Cologne and Board policies and plans, while working behind the scenes to undo the law and policies?
- FK-24 ↑ California needs new legislation, but not that kind. California needs legislation where Water Board leadership members are accountable for their actions relative to the law, policies, and the public trust doctrine, where there are serious consequences for ignoring or refusing basic duties or for acting counter to the Board’s mission. Where Courts can readily sanction leadership, issue contempt orders, issue fines, rescind pay and retirement benefits, and assign a Court officer to correct malfeasance (at any time, not just in response to an adopted permit or order).
- FK-25 ↑ In renewing the Ag Order now, the Central Coast Water Board should not follow or be influenced by the State Board’s approach of allowing mass degradation and withholding information from the public.
- FK-26 ↑ **Recommendations for Establishing a Credible Ag Order Renewal Process**
I recommend the Water Board consider adopting a set of guiding principles before the Ag Order renewal hearings. The guiding principles would provide a counter to any intrinsic bias from recent history, describe a recommitment to the law and policies, and would form the boundaries for a manageable renewal process. Such as:
- FK-27 ↑ 1. The Water Board’s mission is to verifiably limit waste discharges to protect and restore receiving water quality objectives. Water quality objectives are established law and the Water Board will not allow degradation beyond established objectives via a permit or order.
- FK-28 ↑ 2. The Ag Order renewal process will be conducted strictly following the spirit and intent of the Porter Cologne Water Quality Control Act, the Central Coast Basin Plan, relevant Water Board policies, and Court orders. The State Board’s ‘precedential requirements’ will be considered in this context.
- FK-29 ↑ 3. Previous Water Board efforts that relied loosely on a management practices approach have failed to control waste discharges from irrigated agricultural and to protect and restore water quality objectives. Management practices focus on crop yield and crop need, and are not based on achieving defined, measurable waste discharge limits.
- FK-30 ↓ 4. Effective waste discharge limits will likely require the industry to adopt fundamental changes in how certain crops are grown on the Central Coast to prevent the mass discharges now occurring. Fundamental changes in agricultural methods are necessary to reduce waste

FK-30 cont.	↑	discharges because degradation beyond water quality objectives has occurred and will continue. Such degradation beyond water quality objectives is not legal and is not justifiable.
FK-31	↑	5. The main focus of the Ag order renewal proceedings will be to define the appropriate waste discharge limitations necessary to protect and restore objectives, determine a reasonable schedule of implementation, define the enforcement process, and define monitoring programs that will a) allow the public to determine compliance with waste discharge limits, and b) determine long term trends in receiving waters.
FK-32	↑	6. All data generated as a result of the Ag Order will be public information.
FK-33	↑	7. The Water Board and executive staff will provide a buffer between program staff working on the Ag Order renewal and inappropriate influence. Water Board staff will develop requirements in strict compliance with the law, Water Board plans and policies, and Court orders, objectively, to achieve the Board's mission, as they would on other programs.
FK-34	↑	8. The Water Board will pursue coordinated companion Cleanup and Abatement Orders on a basin-wide scale to address the degradation that has occurred and will occur regarding drinking water. The companion orders will require that discharges provide or pay for replacement water wherever necessary due to waste discharges defined in the Ag Order. The Ag Order and companion cleanup and abatement orders will provide a comprehensive and just approach to the long-term protection and restoration of water quality objectives and beneficial uses for all users.
FK-35	↑	Principles such as these would make the Board's change in direction transparent to the public and would provide boundaries for the Ag Order renewal discussions. Principles such as these would help prevent the Water Board from descending into the quagmire of management practices and yet another <i>safe harbor</i> order.
FK-36	↑	An Ag Order that acknowledges the degree of degradation that has occurred and that will continue to occur during the schedule of implementation should be adopted with corresponding basin-wide Cleanup and Abatement Orders that addresses the degradation and loss of beneficial uses to the public.
FK-37	↑	Adopting an Ag Order with waste discharge limits, and companion CAOs to address the degradation that has occurred and will occur during Ag order implementation, makes the Ag regulatory program 'whole' and in compliance with Porter Cologne, the Basin Plan, and Board policies.
FK-38	↓	<p>A Manageable Renewal Process</p> <p>I recommend the Water Board consider breaking down the Ag Order renewal into manageable elements. There are many possible breakdown categories that could be considered and decided in sequence, taking as much time as needed for each sequence. One possibility is waste discharge type, such as:</p> <ol style="list-style-type: none"> 1. Nitrate discharge limits to groundwater <ol style="list-style-type: none"> a. Define limit b. Schedule c. Monitoring d. Enforcement 2. Nitrate discharge limits to surface water. <ol style="list-style-type: none"> a. Define limit

FK-38
cont.

↑

- b. Schedule
- c. Monitoring
- d. Enforcement

3. Toxicity discharge limits to surface water

- a. Define limit
- b. Schedule
- c. Monitoring
- d. Enforcement

4. Sediment discharge limits/controls to surface water

- a. Define limit
- b. Schedule
- c. Monitoring
- d. Enforcement

5. Riparian setback limits

- a. Define limit
- b. Schedule
- c. Monitoring
- d. Enforcement

Defining the sequential process and what will be decided focuses attention on the relevant issue and helps prevent devolving into the quagmire of management practices.

FK-39

I respectfully submit these comments in hopes of improving the process to protect and restore water quality objectives for all members of the public.

Sincerely,

Michael Thomas

Response to Comment FK-1

Thank you for your comment.

Response to Comment FK-2

This comment is summarized and responded to in Master Response 2.1.1.

Response to Comment FK-3

This comment is noted.

Response to Comment FK-4

This comment is summarized and responded to in Master Response 2.1.3.

Response to Comment FK-5

This comment is summarized and responded to in the following Master Responses: 2.1.2; 2.3.10; 2.3.3.; 2.5.1; 2.5.2; 2.6.5; and 2.7.6.

Response to Comment FK-6

This comment is summarized and responded to in the following Master Responses: 2.1.9; 2.1.2; 2.1.3; 2.3.10; 2.3.3; 2.4.6; 2.5.1; 2.5.2; 2.6.5; and 2.7.6.

Response to Comment FK-7

This comment is summarized and responded to in the following Master Responses: 2.4.6 and 2.5.9.

Response to Comment FK-8

This comment is summarized and responded to in Master Response 2.5.9.

Response to Comment FK-9

This comment is summarized and responded to in Master Response 2.5.9.

Response to Comment FK-10

This comment is summarized and responded to in the following Master Responses: 2.1.2; 2.1.3; 2.3.10; 2.3.3; 2.5.1; 2.5.2; 2.6.5; and 2.7.6.

Response to Comment FK-11

This comment is summarized and responded to in the following Master Responses: 2.1.11 and 2.3.10.

Response to Comment FK-12

This comment is noted.

Response to Comment FK-13

This comment is noted.

Response to Comment FK-14

This comment is noted.

Response to Comment FK-15

This comment is noted.

Response to Comment FK-16

This comment is noted.

Response to Comment FK-17

This comment is noted.

Response to Comment FK-18

This comment is summarized and responded to in the following Master Responses: 2.3.10 and 2.3.3.

Response to Comment FK-19 through FK-20

This comment is summarized and responded to in Master Response 2.3.10.

Response to Comment FK-21

This comment is summarized and responded to in Master Response 2.4.6.

Response to Comment FK-22

This comment is summarized and responded to in Master Response 2.1.8.

Response to Comment FK-23

This comment is noted.

Response to Comment FK-24

This comment is noted.

Response to Comment FK-25

This comment is summarized and responded to in the following Master Responses: 2.3.7 and 2.3.1.

Response to Comment FK-26

This comment is noted.

Response to Comment FK-27

This comment is summarized and responded to in the following Master Responses: 2.1.8; 2.2.1; 2.5.6; 2.5.8; 2.5.1; 2.6.5; and 2.6.7.

Response to Comment FK-28

This comment is summarized and responded to in the following Master Responses: 2.3.7; 2.3.1; 2.3.10; 2.3.3; 2.3.4; 2.4.1; and 2.4.3.

Response to Comment FK-29

This comment is summarized and responded to in the following Master Responses: 2.3.10 and 2.5.8.

Response to Comment FK-30

This comment is summarized and responded to in Master Response 2.1.11.

Response to Comment FK-31

This comment is noted.

Response to Comment FK-32

This comment is noted.

Response to Comment FK-33

This comment is summarized and responded to in Master Response 2.1.2.

Response to Comment FK-34

This comment is summarized and responded to in Master Response 2.4.6.

Response to Comment FK-35

This comment is noted.

Response to Comment FK-36

This comment is summarized and responded to in Master Response 2.1.2.

Response to Comment FK-37

This comment is summarized and responded to in the following Master Responses: 2.1.9 and 2.1.2.

Response to Comment FK-38

This comment is noted.

Response to Comment FK-39

Thank you for your comment.

Letter FL: Wayne Barnes (March 20, 2020)**Letter FL**

From: [WAYNE BARNES](#)
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Order 4.0
Date: Monday, June 22, 2020 9:42:04 AM

EXTERNAL:

To All Concerned

FL-1

My name is Wayne Barnes, I live at 145 Koenig Rd. Watsonville Ca. 95076. I submit these photos to help set stronger and enforceable rules to farming practices being used today. Retention ponds need to be required to mitigate downstream damage, especially when plastic overlays are applied to fields.

The photos shown here are from Calabasas Road Watsonville Ca.

Personally, I have filed several complaints the past few years with very poor results. Most agencies are Advisory and have little enforcement support. Santa Cruz County has drainage rules but are not enforced. My hope is the new 4.0 will have some teeth in it and be enforceable.

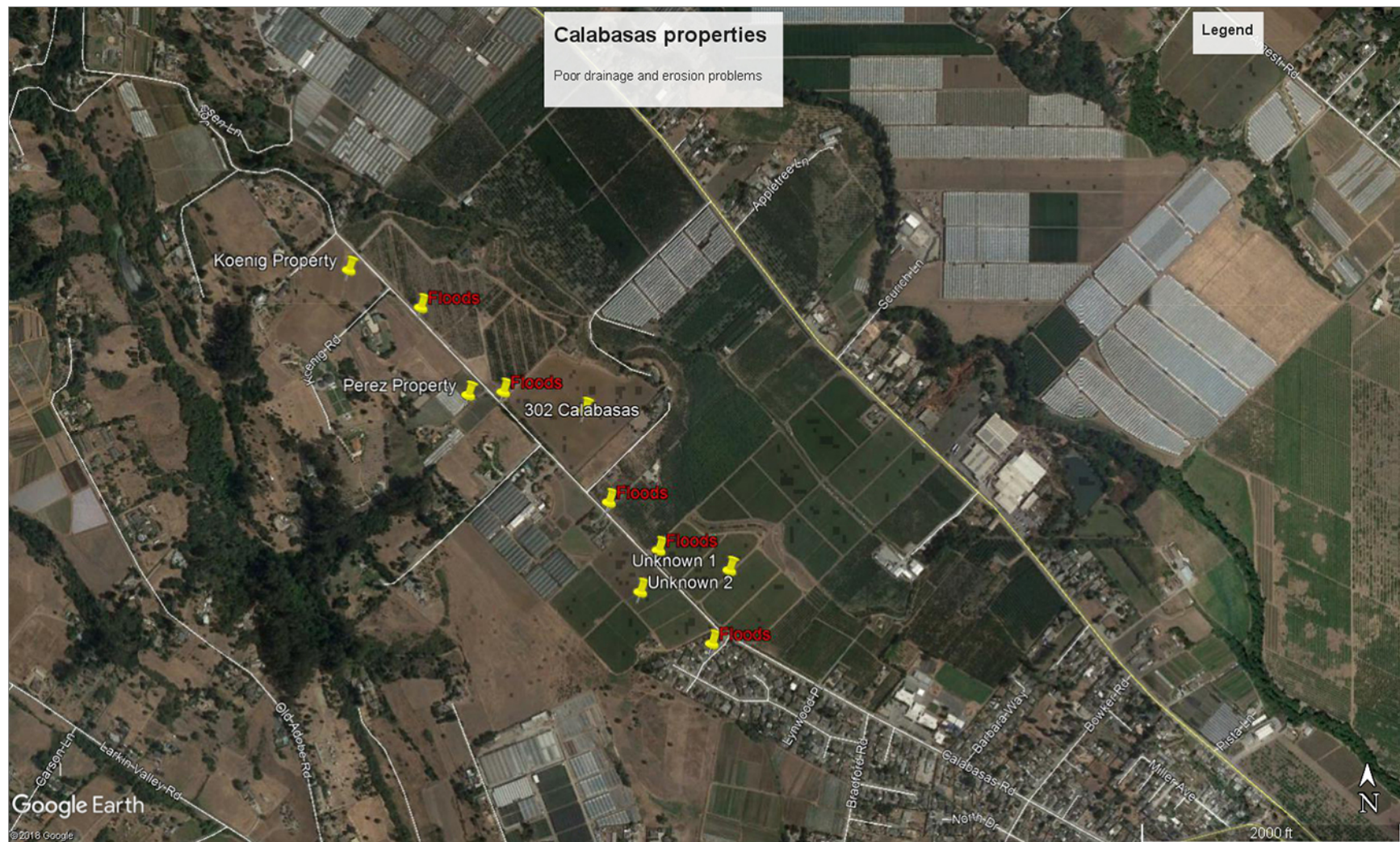
Respectfully
Wayne Barnes











Response to Comment FL-1

This comment is summarized and responded to in the following Master Responses: 2.7.5; 2.7.6; 2.7.1; and 2.1.9. Thank you for your comments and photo submittals.