3.2.1 Federal Agencies

Letter A: Stephen P. Henry, U.S. Fish and Wildlife Service (April 7, 2020)

Letter A

From: Carrillo, Maria L <maria_carrillo@fws.gov>
Sent: Tuesday, April 7, 2020 8:16 AM
To: AgNOI, WB@Waterboards
Cc: Mitcham, Chad J; Takano, Leilani
Subject: Comments on the Draft Agricultural Order 4.0
Attachments: CA Water Board Ag Order Letter_2020_CPA-0034.pdf

EXTERNAL:

Good morning,

Please find attached comments on the Draft Agricultural Order 4.0. Please contact our office with any questions or comments.

Thank you and best,

Maria Carrillo
Administrative Support Assistant
U.S. Fish and Wildlife Service
Ventura Field Office
2493 Portola Road, Suite B
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805/677-3335 Main
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United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
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IN REPLY REFER TO:
08EVEN00-2020-CPA-0034

April 6, 2020

California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

Subject: Comments on the Draft Agricultural Order 4.0

To Whom It May Concern:

A-1

We have reviewed the Draft Environmental Impact Report (DEIR) for the Draft General Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order) (California Water Board 2020). The Agricultural Order would replace the current permit regulating discharges from irrigated lands in the central coast region, thereby establishing Agricultural Order 4.0. The Agricultural Order would include phasing or prioritization, quantifiable milestones in the form of numerical limits, time schedules, monitoring and reporting requirements, and incentives for five key areas for water quality protection. The U.S. Fish and Wildlife Service (Service) believes that implementation of the proposed Agricultural Order greatly enhances the potential for improved water quality in the central coast region. In particular, the Service is extremely supportive of the proposed setback requirements as this would not only greatly enhance water quality, but would also ensure protection and enhancement of habitats that are critically needed to ensure the survival of many wildlife species, including federally listed threatened and endangered species.

The Service's mission is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. To assist in meeting this mandate, the Service provides comments on public notices issued for projects that may have an effect on those resources, especially federally listed plants and wildlife. The Service's responsibilities also include administering the Endangered Species Act of 1973, as amended (Act). Section 9 of the Act prohibits the taking of any federally listed endangered or threatened wildlife species. "Take" is defined at section 3(19) of the Act to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The Act provides for civil and criminal penalties for the unlawful taking of listed wildlife species. Such taking may be authorized by the Service in two ways: through interagency consultation for projects with Federal involvement pursuant to section 7, or through the issuance of an incidental take permit under section 10(a)(1)(B) of the Act.

A-2 Based on our review of the DEIR, we are highly encouraged by and in strong support of the proposed Agricultural Order, which is anticipated to result in increased water quality throughout Central California. The Service is particularly supportive of the California Regional Water Quality Control Board, Central Coast Region's (Water Board) proposed requirement of vegetated buffers between waterways and agricultural operations. We believe that the Water Board's proposal to increase operational setbacks from adjacent waterbodies are not only reasonable, but absolutely necessary. These areas would provide essential buffer zones where chemical pollutants from agricultural operations are able to filter out prior to reaching adjacent surface waters, thus ensuring that all beneficial users are protected from degraded water quality. Additionally, we believe operational setbacks are necessary to ensure the protection and enhancement of habitats that are required for the survival and persistence of many wildlife species, including federally listed species.

A-3 We base our support for the Agricultural Order on our substantial concerns regarding the ongoing and increasing level of impacts to natural and semi-natural habitats that are located adjacent to agricultural operations in Central California. A recent study that succinctly summarizes our concerns is detailed in Gennet et al. 2013. Gennet (et al. 2013) found that between 2005 and 2009, 13.3 percent of riparian and wetland vegetation along the Salinas River was converted to bare ground or crops, or was observably altered and degraded; and, 8.2 percent of existing vegetation was lost in 20 Salinas River Valley wildlife corridors identified by the study. They estimate that if these practices were implemented statewide, across all crops, up to 40 percent of riparian habitat and 45 percent of wetlands in some counties would be affected.

A-4 We understand that the implementation of the proposed setback requirements may receive criticism from agricultural operations or other interested parties, and we acknowledge that this topic is extremely complex. Due to the complexity of this topic, we provide in the following paragraphs a summary background, including a discussion on food safety policies, in order to convey the reasoning behind our concerns, as well as the reasoning behind our strong support for proposed vegetated buffer zone guidelines.

A-5 Due to the intensive nature of Central Coast agriculture, the region faces significant environmental degradation. In addition to harboring fertile soil and a climate ideal for year-round cultivation, the region also harbors unique coastal waterways, wetlands, and biodiversity. The watersheds of the region empty into the Monterey Bay National Marine Sanctuary, the largest marine protected area in the United Stated (U.S.). The three major watersheds are the Pajaro River, Salinas River, and Elkhorn Slough, which is also one of the largest remaining tidal wetlands in the U.S. (NOAA 1999 in Stuart 2009). Approximately 75 percent of the land surrounding these watersheds are used for agriculture (State of California 1997 in Stuart 2009). The waterways emptying into the marine sanctuary repeatedly fail to meet water quality standards with significantly elevated levels of nutrients, pesticides, and sediment (Caffrey et al. 2001; Hunt et al. 1999 in Stuart 2009). Innovative strategies of environmental protection from government agencies and non-governmental organizations have evolved to address these environmental problems (Knight 1997 in Stuart 2009). Specific practices use vegetation around agricultural fields and in waterways to absorb and filter out pollutants (Los Huertos 1999 in

A-5 cont. Stuart 2009). Environmental practices such as these not only improve water quality but also provide increasingly important habitat for wildlife, including those which are afforded protection under the Act.

A-6 Unfortunately, the creation, enhancement, or even persistence of these important habitats has been made practically impossible due to factors that are outside of the control of agricultural landowners, managers, and growers. Regrettably, continued and increased environmental degradation occurs due to policies stemming from agricultural commodity buyers' (shipping, processing, and retail firms) concerns about food safety (Stuart 2009). These concerns primarily stem from an outbreak of *Escherichia coli* (*E. coli*) O157:H7 in 2006, which was traced back to processed bagged spinach in California. Despite an official investigation, the U.S. Food and Drug Administration (FDA) and the California Department of Health Services (CDHS) have not yet conclusively determined the specific causes of the spinach outbreak (CDHS/FDA 2007 in Stuart 2009). However, much attention in their final report was given to cattle, which were found to carry the same strain of *E. coli* O157:H7 as found on the contaminated spinach. Although *E. coli* O157:H7 is a pathogen primarily associated with cattle feces, industry-led guidelines now, without scientific reasoning, call for "clean" fields and many buyers insist on food safety audits to ensure that such guidelines are being followed. These guidelines and audits encourage growers to reduce the presence of wildlife and any non-crop vegetation such as shrubs and grasses that could attract wildlife. This is despite the fact that research has shown wild animals exhibit relatively low levels or an absence of *E. coli* O157:H7 (Stuart et al. 2006). This pressure to create "clean" fields places growers in a dilemma because of mutually conflicting conditions, as market-based demands to follow food safety guidelines may substantially deter the adoption of practices to address regional environmental problems, thus increasing pollution and habitat degradation (Stuart et al. 2006).

A-7 Food safety concerns have emerged as a strong disincentive to adopt environmentally beneficial growing practices. Currently, almost all large agricultural commodity buyers encourage and/or require that measures be taken to deter or eliminate wildlife (Stuart 2009). Measures to reduce the presence of wildlife may entail using traps, poison bait stations, fences, and removing nearby vegetation. Most standards call for the creation of bare ground buffers around fields, where vegetation is completely cleared. The creation of bare ground around agricultural operations has serious negative effects for both wildlife and water quality (Stuart 2009).

A-8 Ironically, recent studies have found that industry-driven vegetation clearing is likely contributing to elevated levels of *E. coli* and *Salmonella enterica* (*Salmonella*) within agricultural fields. According to recent research (Karp et al. 2015b), *E. coli* in fresh produce increased by more than an order of magnitude from 2007 to 2013, despite extensive vegetation clearing at farm field margins. Furthermore, although *E. coli* prevalence in produce was highest on farms near areas suitable for livestock grazing, no evidence was found of increased *E. coli* or *Salmonella* near non-grazed, semi-natural areas. Rather, pathogen prevalence increased the most on farms where non-crop vegetation was removed, calling into question reforms that promote vegetation removal to improve food safety.

A-9 California produces most of the nation's leafy greens, accounting for 71 to 85 percent of lettuces, 60 percent of fresh spinach, and 85 percent of processing spinach harvested in 2012 (CDFA 2014). We understand that sustaining these agricultural activities are of the utmost importance, and we also understand that maintaining these incredibly productive lands and their adjacent habitats must continue into the future. As stated in Karp et al. 2015a, "effective strategies to prevent foodborne outbreaks are needed, but there are many approaches to minimize risk; not all are equal in impact on people and nature. There is a pressing need to weigh options with respect to their unintended consequences beyond the rightful concern of food safety."

A-10 Based on the information above, it is clear that industry driven vegetation clearing directives are, in themselves, a primary factor leading to further degradation of water quality and habitat. We believe it absolutely necessary that the Agricultural Order be adopted in order to counter these scientifically unsubstantiated directives regarding vegetation clearing. We believe that all beneficial users of California's surface waters, including federally threatened and endangered species, should be afforded protection from these harmful practices.

A-11 Based on our review of the DEIR, we recognize and sympathize with known areas of controversy including the loss of agricultural land as a result of the proposed setback requirements, and increased costs of compliance for growers. We understand that these are certainly relevant concerns, but we also recognize that it is the responsibility of the landowner to ensure their actions do not degrade water quality for all beneficial users of California's surface waters. As stated in the DEIR, "Since the early 2000s, the Water Board has compiled substantial empirical data demonstrating that water quality conditions in the agricultural areas of the region are impaired as a result of waste discharges from irrigated agricultural operations. Impairments include nitrate pollution of drinking water, widespread toxicity in many surface waters, and elevated levels of turbidity, sedimentation, erosion, and salts. In addition to posing a risk to human health, these water quality conditions threaten aquatic life and other beneficial uses." As evidenced by the continued inability to achieve acceptable water quality standards in California's Central Coast, despite the implementation of three previous agricultural orders, we believe it is absolutely necessary that Agricultural Order 4.0 be adopted.

A-12 As stated earlier, the mission of the Service is to conserve and protect plant and animal species for the continuing benefit of the American people. We clearly recognize the concerns around food safety and we believe that the safety of humans should come first at all times. However, as a science based institution, we believe that appropriate research should be conducted in order to fully understand the threats and causes of food-borne illnesses prior to the institution of practices that result in the destruction or degradation of natural habitats. We also understand concerns regarding the loss of agricultural lands and potential increases in costs of compliance of the proposed Agricultural Order. As evidenced by the continued inability of surface waters to meet water quality standards, we believe that it is reasonable and necessary to implement the proposed Agricultural Order to ensure all beneficial users, including threatened and endangered species, are protected from ongoing degradation of these natural resources. It should also be stated that the removal of natural and semi-natural vegetation in areas adjacent to farms fields may be in

A-12 cont. direct violation of State and Federal laws. Understandably, these laws are intended to protect State and federally listed endangered species that rely on these areas for their persistence.

A-13 We appreciate the opportunity to provide comments on the DEIR for the Draft General Waste Discharge Requirements for Discharges from Irrigated Lands. If you have any questions, please contact Chad Mitcham of my staff at (805) 677-3328, or by electronic mail at chad_mitcham@fws.gov.

Sincerely,

Stephen P. Henry
Field Supervisor

cc: Monica Oey, Brandon Sanderson, Annee Ferranti; California Department of Fish and Wildlife

LITERATURE CITED

[CDFA] California Department of Food and Agriculture. 2014. California Agricultural Statistics Overview 2013-2014. CDFA.

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Response to Comment A-1

Thank you for your comment in support of DAO 4.0.

Response to Comment A-2

Thank you for your comment of support. Please note that RAO 4.0 does not include the riparian or operational setback component.

Response to Comment A-3 through A-10

Thank you for your comment. This comment is responded to in Master Response 2.8.8.

Response to Comment A-11

This comment acknowledges known areas of controversy, including loss of agricultural land as a result of the proposed setback requirements and increased costs of compliance for growers; but asserts support for the adoption of DAO 4.0. As explained in Response to Comment A-2 and Master Response 2.8.8, RAO 4.0 does not include the riparian or operational setback components.

Response to Comment A-12

This comment acknowledges known areas of controversy, including concerns around food safety, loss of agricultural land, increased costs of compliance for growers; but asserts support for the adoption of DAO 4.0. In response to comments related to food safety and the loss of agricultural land, please refer to Master Response 2.8.8. As explained in Response to Comment A-2, RAO 4.0 does not include the riparian or operational setback components. In response to concerns related to increased costs of compliance for growers, refer to Master Response 2.9.1 and 2.10.

Response to Comment A-13

Thank you for your comment.

Letter B: Joshua Fuller, National Oceanic and Atmospheric Administration (June 19, 2020)

Letter B

From: Joel Casagrande - NOAA Federal
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Friday, June 19, 2020 8:14:33 AM
Attachments: 20-06-18 NMFS WCR Supprt Letter re AgOrder4.0.pdf

EXTERNAL:

Please see attached.

Kind Regards,

--
Joel Casagrande
Fisheries Biologist, West Coast Region
NOAA Fisheries | U.S. Department of Commerce
(707) 575-6016
www.fisheries.noaa.gov

Due to the COVID-19 pandemic I will be teleworking through May. During this time, email will be the best way to contact me. If a phone call is necessary, please email me and I will respond as soon as possible. If you have a specific request, please specify important timeframes or deadlines and I will do my best to respond accordingly. Thank you.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731

June 18, 2020

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

RE: Agricultural Order Renewal 4.0

To whom it may concern:

B-1 This letter from NOAA's National Marine Fisheries Service (NMFS) is to express our support to the California Regional Water Quality Control Board, Central Coast Region (Regional Board) for their proposed issuance of the *Draft General Waste Discharge Requirements for Discharges from Irrigated Lands, Order No. R3-20XX-XXXX* (Draft Order) dated February 21, 2020.

B-2 The State Water Resources Control Board and Regional Boards are the principal state agencies charged with the coordination and control of water quality for the health, safety, and welfare of the people of the state pursuant to the Porter-Cologne Water Quality Control Act. The Central Coast region of California has over 17,000 miles of surface waters and approximately 4,000 square miles of groundwater basins that are, or may be, adversely affected by agricultural discharges. Many of the impacted waterways and groundwater basins within California's Central Coast region are known to support salmonid Distinct Population Segments (DPSs) and Evolutionary Significant Units (ESUs) listed under the federal Endangered Species Act (ESA). These species include:

Southern California Coast (SC) steelhead DPS (*Oncorhynchus mykiss*)
Endangered (71 FR 834; January 5, 2006)
Critical habitat ((70 FR 52488; September 2, 2005);

South-Central California Coast (S-CCC) steelhead DPS (*O. mykiss*)
Threatened (71 FR 834; January 5, 2006)
Critical habitat (70 FR 52488; September 2, 2005);

Central California Coast steelhead DPS (*O. mykiss*)
Threatened (71 FR 834; January 5, 2006)
Critical habitat (70 FR 52488; September 2, 2005);

Central California Coast (CCC) coho salmon ESU (*O. kisutch*)
Endangered (June 28, 2005; 70 FR 37160)
Critical habitat (May 5, 1999; 64 FR 24049).

B-2 cont.

The Draft Order highlights that several water bodies throughout the Central Coast region remain severely impaired by irrigated agriculture, specifically nutrient discharges to surface and groundwater, pesticide discharges and their associated toxicity, sediment discharge, and the degradation or loss of riparian and wetland areas and their beneficial uses.

The Draft Order includes several updates from previous Orders including:

- Phasing and prioritization of surface waters, groundwater basins, and riparian areas based on their level of water quality and beneficial use impairment, and their risk to water quality impairment.
- Promotion of Third Party groups that will execute education, outreach, and required monitoring and reporting, and oversee implementation of management practices to improve water quality and restore beneficial uses.
- Requirements for each discharger to establish an "operational setback" for all waterbodies within or bordering their ranch, regardless of priority area. Operational setbacks are defined in the Draft Order as either (1) 1.5 times the width of the active channel, on each side of the stream, or 35 feet for waterbodies that are not streams such as wetlands and lakes; or (2) the applicable riparian setback distance in Table C.5-1 (and Table C.5-2, where applicable), whichever is less. Within the operational setbacks, the discharge of agricultural waste is prohibited, and bare soil vulnerable to erosion must be minimized.
- Exclusion of various activities within the operational and riparian setback zones including: (1) commercial crop production, (2) installation of permanent structures, (3) storage of chemicals, materials, equipment, or trash, (4) application of chemicals, including fertilizers and pesticides[1], (5) operation of heavy machinery, except as authorized through appropriate permitting mechanisms, and (6) the introduction of invasive species.
- Establishment of four compliance pathways for riparian area management: (1) Cooperative Approach, (2) On-Farm Setback, (3) Rapid Assessment Method, and (4) Alternative Proposal.

B-3

NMFS strongly supports the efforts by the Regional Board (past and present) to protect and improve water quality, restore beneficial uses, and to create and strengthen local partnerships to achieve compliance efficiencies. If implemented, we expect the above additions will expand protections and the restoration of waters and wetlands, while providing a reasonably adaptable framework for increased compliance and innovation within the irrigated agriculture community. Surface water remains limited in many of areas of the Central Coast, particularly during the dry irrigation season. These waters are often used for migration and/or rearing of various steelhead and salmon life stages; and therefore, improvements to water quality and the protection (and

[1] The Draft Order indicates that pesticides is inclusive of herbicides for vegetation control.

B-3 cont. expansion) of riparian/wetland areas throughout the Central Coast region remain paramount for their recovery.

B-4 We remained committed to working with the Regional Board on efforts to improve and protect water quality and wetlands throughout the Central Coast region, and are hopeful the additions to the Draft Order will be accepted and implemented. Please direct questions regarding this letter to Joel Casagrande at (707) 575-6016 or joel.casagrande@noaa.gov.

Sincerely,



Joshua Fuller
Acting Central Coast Branch Chief
North Central Coast Office

cc: Paula Richter, CCRWQCB, San Luis Obispo

Response to Comment B-1

Thank you for your comment.

Response to Comment B-2

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

Response to Comment B-3

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

Response to Comment B-4

Thank you for your comment.

Letter C: Karen Lowell, U.S. Department of Agriculture, Natural Resources Conservation Service (June 22, 2020)

Letter C

From: Lowell, Karen - NRCS, Salinas, CA
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 11:44:35 AM
Attachments: LOWELL COMMENTS Draft Order 4 v6-21-20.pdf

EXTERNAL:

Please find attached comments on the the Draft Ag Order 4.0.

Receipt of this email appreciated to ensure that comments are successfully transmitted by the deadline at 11:59pm today.

Sincerely,
Karen Lowell

Karen Lowell, Ph.D., CCA
Area Agronomist
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USDA
United States Department of Agriculture

Mr. Matthew T. Keeling
Executive Officer
Water Quality Control Board, Region 3
895 Aerovista Place
San Luis Obispo, CA 93401-7906

June 21, 2020

Dear Mr. Keeling,

C-1 Thank you for your flexibility in extending the deadline for comments on Draft Order 4.0 given the disruption resulting from the CoVID 19 pandemic.

C-2 I have reviewed the Draft Order in its entirety but will focus my comments on the nitrogen (N) management elements of the order. Specifically, the proposed methods for estimating N loading potential to groundwater.

C-3 My overarching concern is that the proposed order is an overly simplified approach to *accounting* for N, to the detriment of *managing* N. Mandating that producers account for N with a simple applied minus removed (A-R) approach significantly dampens innovative use of conservation-minded management to reduce N leaching hazard. The A-R approach captures N leaching hazard associated with the *quantity of N* vulnerable to leaching but does not recognize that management of *mobility of N* is equally important to minimize N leaching hazard. I'll illustrate my point with specific examples.

C-4

1. **CONCERN: Failure to recognize value of cover crops and deep-rooted cash crops to reduce N mobility**

   While cover crops that are incorporated into the soil do not remove N from the system, they do essentially "re-start the clock" on vulnerability to leaching. It is well documented that when planted in the fall, concurrent with the start of winter rains in the region, cover crops capture residual soil N from a fall harvested crop and immobilize it in cover crop tissue (Brennan and Boyd, 2012; Gaskell et al., 2011; Wyland et al., 1996). When the cover crop is terminated, the N in this tissue has a range of fates.

   In a labeled isotope study, Jackson (2000) found that 4 months after termination and incorporation of a cover crop, only 4.7% of the labeled N^{15} from the cover crop tissue was detected at 60 cm depth. Jackson's work demonstrates that once soil N is assimilated in cover crop tissue, leaching hazard is drastically reduced both immediately, and over time as cover crop residues decompose in a carbon-rich soil matrix.

   Inclusion of cover crops in the Central Coast cropping rotation is challenging as food safety, market drivers and production scheduling factors make including them problematic. Local researchers have demonstrated that some cash crops may provide similar N scavenging benefit, for example both broccoli and kale have shown promise. These crops effectively scavenge N from previous crops, including N that has moved well below the rooting depth of the crop to which it was originally applied, thereby reducing N leaching hazard (Smith et al., 2016).

   While hard to capture as a simple R factor in the A-R equation, it is essential to recognize the risk reduction offered by inclusion of cover crops and N-scavenging cash crops. The A-R calculations allow for N held in woody materials of permanent and semi-permanent crops to be deducted (R_{seq}).

Natural Resources Conservation Service
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C-4 cont.

While not as long lasting a sequestration, N uptake by cover crops offers temporary removal, and significant reduction of *mobility* hazard. Inclusion of R_{Cover} would incentivize adoption of this critical conservation practice, benefiting not only N leaching, but also soil erosion and resultant sediment loading to surface water when winter ground is left fallow. Note, the same benefit should be assigned deep rooted cash crops.

C-5

2. CONCERN: Over-simplification of compost impact on N in A-R

Many of the region's soils are low in available carbon, this is particularly true in conventional tillage operations where any carbon present is subject to tillage-induced depletion. To counteract this depletion of soil carbon, many growers add compost to enhance soil physical properties (e.g. soil structure, tilth) and to support soil biological activity. These are critical objectives in the soil health management approach that NRCS, CDFA and numerous other conservation advocates are asking growers to adopt. The A-R accounting approach requires that growers calculate the total N added with the compost, and then assume a percentage of that is vulnerable to leaching. This overly simplified view of the role of compost, coupled with proposed N application rate limits, risks discouraging compost application as a management strategy. Compost offers numerous benefits, including increased soil carbon and the accompanying potential to enhance microbial activity and N cycling in the crop rooting depth.

Several studies in California have described the impact of additions of compost and other organic materials on both soil nitrate and soil microbial carbon. A study by Jackson et al. (2003) reported that when compost and cover crops were used together, there was more microbial biomass carbon in the top 6" and less soil nitrate in the top 3 feet. This finding illustrates a fundamental principle of soil health --- that many soil microbial communities are carbon-limited. The addition of carbon with both compost and cover crops is a management strategy to "prime the system" and increase soil microbial activity. With the right conditions, microbial activity may reduce N vulnerable to leaching by maximizing short-term immobilization of N in microbial biomass, and by supporting gradual, cyclical release of N back to the soil where it can be taken up by plant roots. Recent work by White et al. (2020) illustrates benefits of carbon additions, with carbon derived from cover crops driving microbial activity, but compost driving long term carbon levels in the soil, which are critical to maintain microbial populations.

Prediction of compost application impacts on microbial communities, soil properties and N immobilization are highly specific to the nature of the compost, the soil and the conditions in which they are being managed. The inclusion of compost as a simple addition in A-R fails to recognize the central role of adding carbon to the soil to support N cycling, including in forms not vulnerable to leaching. Coupled with proposed N application limits, this incomplete consideration of the impact of compost amendments disincentivizes use of compost to the detriment of both wholistic nutrient management, and other conservation benefits of compost to soil physical and biological properties.

C-6

3. CONCERN: Novel N immobilization strategies are not incentivized

Building on the potential to immobilize N vulnerable to leaching by adding carbon to the soil, local research scientists have experimented by adding carbon-rich soil amendments with limited N, such as green waste compost, ground almond shells and highly labile carbon sources (e.g glucose). These materials were added in the fall on land with excess N vulnerable to leaching by winter rains. While effective to varying degrees to reduce N leaching, these strategies require further research to refine for practical use, as N immobilization was so long-lasting in some treatments that the following cash

C-6 cont.

crop nutrition was compromised (Smith et al., 2019). Again, this is a strategy that does not remove N from the system, but rather reduces the leaching hazard by managing N *mobility*.

As with cover crops, inclusion of an R factor that reflects reduced *mobility* would be helpful to encourage growers to explore innovative conservation-focused management strategies such as the novel approach described above.

C-7

Many of the processes I have highlighted in above concerns are biologically mediated, and as such, are hard to predict with precision and certainty. However, failure to include them at all risks undermining critical conservation-focused management that forward-looking growers are actively exploring. It is essential that the leaching hazard estimate, currently a simple A-R calculation, more robustly consider the myriad factors that influence both *quantity* and *mobility* of soil N vulnerable to leaching. Further, that growers who embrace innovative management strategies to reduce N leaching hazard are offered opportunities to reflect their accomplishments in their hazard estimate.

C-8

I encourage the board to consider seating an expert panel to review management strategies that growers and research scientists submit for consideration. Over time these strategies may be vetted and included in the leaching hazard analysis to reflect the impact of management practices that effectively reduce N leaching by reducing either *quantity* or *mobility* of soil N.

C-9

A foundational principle of conservation planning done by the Natural Resources Conservation Service is that conservation work is site and producer specific. I recognize that this approach is hard to adopt in a regulatory context, but I urge the board to recognize that generic formulas and blanket rules invite omission and error. Wherever possible, I hope that the board will retain options to allow for site-specific planning, and conservation implementation that honors the diverse talents of our region's growers and the equally diverse landscapes they manage.

C-10

The Water Board staff has been given a monumental task. I thank them and the board members for the commitment to finding a path forward that helps protect and improve water quality in the region.

Thank you for the opportunity to offer these thoughts. I welcome any questions you may have to clarify what I have written or to better understand my input.

Sincerely,

Karen Lowell, Ph.D., CCA (#370987)
Agronomist
USDA Natural Resources Conservation Service
Karen.Lowell@usda.gov
831-975-7752

References cited in comments submitted by K. Lowell, USDA-NRCS Agronomist June 21, 2020

Brennan, E. and N.S. Boyd, 2012. Winter cover crop seeding rate and variety affects during eight years of organic vegetables: II. Cover crop nitrogen accumulation. *Agronomy Journal* 104 (3): 799-806.

Gaskell, M., R. Smith, L. Jackson and T. Hartz. 2011. Soil nitrogen fertility management. In *Cover Cropping for Vegetable Production*. UCANR 3517.

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Response to Comment C-1

Thank you for your comment.

In addition, this comment is summarized and responded to in Master Response 2.9.3.

Response to Comment C-2

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

Response to Comment C-3

This comment is summarized and responded to in the following Master Responses: 2.1.8; 2.3.4; 2.3.6.

Response to Comment C-4

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

Response to Comment C-5

This comment is summarized and responded to in the following Master Responses: 2.1.8; 2.3.6.

Response to Comment C-6

The comment is noted.

Response to Comment C-7

The comment is noted.

Response to Comment C-8

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

Response to Comment C-9

The comment is noted.

Response to Comment C-10

Thank you for your comment.

3.2.2 State Agencies

Letter D: Fernando Galli, California Department of Fish and Wildlife (April 9, 2020)

Letter D

From: Carpio, Karen@Wildlife <Karen.Carpio@wildlife.ca.gov>
Sent: Thursday, April 9, 2020 2:07 PM
To: AgNOI, WB@Waterboards
Cc: Keeling, Shanta@Waterboards; state.clearinghouse@opr.ca.gov; Vouchilas, Cathie@Wildlife; Erickson, Gregg@Wildlife; Weightman, Craig@Wildlife; Vance, Julie@Wildlife; Ferranti, Annee@Wildlife; Galli, Fernando@Wildlife; Pert, Ed@Wildlife; Wilson-Olgin, Erinn@Wildlife
Subject: Comments on Draft EIR (Ag Order 4.0)
Attachments: DEIR_Signed.PDF

EXTERNAL:

Hello,
Please find the attached comment letter from the Department of Fish and Wildlife.
Thank you,

Karen Carpio
Senior Environmental Scientist (Specialist)
Habitat Conservation Planning Branch
Department of Fish and Wildlife
1010 Riverside Parkway
West Sacramento, CA 95605
P: (916) 376-8653

Mailing address:
P.O. Box 944209
Sacramento, Ca 94244-2090

1

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Habitat Conservation Planning Branch
P.O. Box 944209
Sacramento, CA 94244-2090
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

April 9, 2020

Shanta Keeling
Water Resource Control Engineer
Central Coast Water Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Dear Ms. Keeling:

Draft general waste discharge requirements for discharges from irrigated lands (PROJECT)
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
SCH# 2018021050

D-1 The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a DEIR from the Central Coast Water Boards for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW previously submitted comments in response to the Notice of Preparation of the DEIR.

Thank you for the opportunity to provide comments and recommendations regarding activities involved in the Project that may affect California fish and wildlife resources. We appreciate the opportunity to provide comments regarding the aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

D-2 **CDFW ROLE**

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

D-2 cont.

example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

D-3

PROJECT DESCRIPTION SUMMARY

Proponent: California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board)

Objective: The objective of the Project is to regulate waste discharges from irrigated lands throughout the central coastal region. The Project will protect and restore beneficial uses and achieve water quality objectives specified in the Basin Plan for commercial irrigated agricultural areas in the central coast region. The proposed Project would regulate discharges of waste from:

- Commercial irrigated lands and discharges of waste from commercial nurseries, nursery stock production, and greenhouse operations.
- Lands that are planted with commercial crops that are not yet marketable, such as vineyards and tree crops.
- Lands that are planted with commercial crops that are not yet marketable, such as vineyards and tree crops.

Location: Monterey, San Benito, San Mateo, Santa Clara, and Santa Cruz

Timeframe: This Project will replace the current waste discharge requirements once approved.

D-4

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Central Coast Water Board in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on the Project's avoidance of significant impacts on biological resources, CDFW concludes that an Environmental Impact Report is appropriate for the Project.

D-5

Comment #1: Priority designation of tributaries

Section: Chapter 2 Project Description, Table 2-4; Appendix A, Draft General Waste Discharge Requirements for Discharges From Irrigated Lands (Agricultural Order 4.0), Part 2, Section C.5. Riparian Area Management for Water Quality Protection, 4b; Part 2, Section B: Phasing and Prioritization, Table B-1 Groundwater Phase Areas and Figure B-3 Riparian Priority Areas

D-5 cont.

Issue: Priority designation areas do not designate upstream reaches of Pajaro River and major tributaries to Pajaro River (including, but not limited to Llagas Creek, Uvas Creek/Carnadero Creek, and San Benito River) as having any priority designated. Streams without a priority designated are required to establish an operational riparian setback that is the least distance of either (a) 1.5 times the width of the active channel, on each side of the stream, or (b) as specified in tables including variables such as stream order, type vegetation present (i.e. grass, shrubs, trees), and percent slope (Appendix A, Part 2, Section C.5. Riparian Area Management for Water Quality Protection, 4b; Appendix A, Table C.5-1 Minimum Riparian Setback Width and Vegetation Type; Appendix A, Table C.5-2. Slope Adjustment). This operational riparian setback is generally smaller than riparian streams that have a priority designated (Appendix A, Part 2, Section C.5 Riparian Area Management for Water Quality Protection, 3; Appendix A, Section C.5 Riparian Area Management for Water Quality Protection, 2). The setback for a stream with a designated priority is established through four available pathways that include additional analysis of the stream by the discharger and additional Regional Water Quality Control Board (RWQCB) review than streams without a designated priority.

Nutrient pollution in surface waters of the Pajaro River Watershed has long been recognized as a problem, with irrigated agriculture likely contributing the majority of controllable nutrient loads to streams (DEIR 3.9.3 Environmental Setting, page 3.9-21). Upper Pajaro River and tributaries are closely surrounded by agriculture. Generally, upper Pajaro River and tributaries to upper Pajaro River (including, but not limited to Llagas Creek, Uvas Creek/Carnadero Creek, and San Benito River) have mature riparian habitat with thick tree canopy and diverse understory. These streams include habitat for special status species (e.g. Steelhead (*Oncorhynchus mykiss irideus pop. 9*) - South-central California Coast Distinct Population Segment – Federally Threatened; California red-legged frog (CRLF) (*Rana draytonii*) - Federally Threatened, State Species of Special Concern, Western pond turtle (WPT) (*Emmys marmorata*) - State Species of Special Concern; Least Bell's vireo (*Vireo bellii pusillus*) - State Endangered and Federal Endangered) and other wildlife such as roosting bats, nesting birds, and other aquatic wildlife.

Recommendation:

To reduce impacts to less than significant, it is recommended that upper Pajaro River and tributaries to the Pajaro River (including, but not limited to Llagas Creek, Uvas Creek, Carnadero Creek, and San Benito River) should be designated Priority 3 (the designation for the middle and lower reaches of Pajaro River) or should be designated Priority 4 at minimum. For some tributaries riparian shrub and tree vegetation is only present in the lower reaches (as reviewed in Google Earth). An operational setback for the upstream reaches of Pajaro River tributaries, where riparian shrub and tree vegetation is not present, may be appropriate and these reaches may not need to be designated a priority.

Comment #2: Lack of conservation plan identification within project site

Section: Chapter 3.3.4, Impact BIO-6

Impact Analysis: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

D-6 This section states that there were not any Natural Community Conservation Plans (NCCP) in the Project Area. This is incorrect, as the Santa Clara Valley Habitat Plan (SCVHP) is a Habitat Conservation Plan/NCCP. This section discusses Habitat Conservation Plans (HCP) in general and does not have specific analysis for each HCP and/or NCCP. Some of the management practices proposed such as runoff management features (e.g. buffer strips or swales), sediment basins, and bioreactors may be covered activities under the SCVHP. Certain streams have setbacks required under the SCVHP (e.g. Llagas Creek and Uvas Creek/Carnadero Creek). For those management projects covered under the SCVHP, a stream setback may be required through the SCVHP and the proposed riparian setbacks, as described in the DEIR and Agricultural Order 4.0, may conflict with the SCVHP. This conflict is considered a significant impact.

Recommendation:

To reduce impacts to less than significant, the riparian setbacks described in the DEIR and Agricultural Order 4.0 and each type of management practice should be analyzed for potential conflict with the SCVHP stream setbacks. Any areas where conflict is identified, the SCVHP should supersede setbacks as proposed.

Comment #3: Impacts to riparian habitats

Section: Chapter 3.3.4, Mitigation Measure BIO-1 and Impact BIO-2.

Issue: Mitigation Measure BIO-1 states that dischargers must "Avoid and minimize disturbance of riparian and other sensitive vegetation communities" when implementing management practices. To "minimize disturbance" is a relative term. CDFW recommends that the EIR include more detailed guidance on how dischargers may avoid or minimize impacts.

D-7 Impact BIO-2 states "The total amount of riparian habitat or other habitat lost through displacement by management practices would likely be more than compensated by the riparian habitat that would be created/restored through the setback requirements of Agricultural Order 4.0". While setback areas would be subject to certain restoration actions such as removal of crops, seeding of grasses, rushes or sedges, or planting of trees or shrubs, the DEIR does not include a full analysis to the determination that riparian habitat removal under Agricultural Order 4.0 is less than significant. For example, mitigation should also be commensurate with the amount and type of habitat impacted, i.e., created or restored habitat should result in equal or better habitat than the habitat impacted.

D-7 cont.

Recommendation 1:

To reduce impacts to less than significant, dischargers, within the Annual Compliance Form (Attachment A (Agricultural Order 4.0), Attachment B Monitoring and Reporting Program, F Annual Compliance Form (ACF)), should include area (e.g. square feet) of riparian vegetation (e.g. shrubs and trees) removed due to construction of management practices and area (e.g. square feet) or riparian habitat (e.g. shrubs and trees) established within setbacks. The RWQCB should keep track of the riparian habitat removed and created, as a whole for the Project area.

D-8

Recommendation 2:

A timeline should be established (e.g., every 5 years) in which the amount of riparian habitat loss or gain is totaled. If there is a net loss of riparian habitat over the established timeline, additional mitigation may be warranted to offset the loss. Additional CEQA analysis may be necessary.

D-9

Comment #4: Impacts to Burrowing Owl (*Athene cunicularia*)

Section: Appendix C Special-Status Species

Issue: Burrowing owls are known to occur within fallow agricultural fields, debris piles, earthen berms, agricultural drains, and adjacent to active agricultural fields. The DEIR does not analyze impacts to burrowing owls.

Specific impact: The Project may result in direct and indirect burrowing owl mortality or injury, the disruption of natural burrowing owl breeding behavior, and loss of breeding, wintering and foraging habitat for the species. Project impacts would continue to contribute to statewide population declines for burrowing owl. Along the central coast, the species persists in low densities and continues to experience significant direct and cumulative habitat loss.

Why impact would occur: Impacts to burrowing owl could result from the construction of sediment retention basins, vegetated filter strips, riparian buffer areas, installation of efficient irrigation systems, runoff management features (e.g., swales), bioreactors, establishment of riparian vegetation that would require existing agricultural crop/vegetation removal, tilling, and planting of new vegetation, and other ground disturbing activities. Project disturbance activities may result in crushing or filling of active burrowing owl burrows causing the death or injury of adults, eggs and young. The Project will remove burrowing owl foraging habitat by eliminating native vegetation that supports essential rodent, insect and reptile that are prey for burrowing owl. Rodent control activities could result in direct and secondary poisoning of burrowing owl ingesting treated rodents.

Evidence impact would be significant: Project impacts may continue to result in substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. Adverse impacts to burrowing owl may occur because the materials provided do not condition take avoidance surveys prior to Project

operations including but not limited to ground and vegetation disturbing activities and rodent control activities.

D-9 cont.

Mitigation Measure 1:

To reduce Project impacts to burrowing owl to less than significant, CDFW recommends that the Project adhere to CDFW's March 7, 2012 *Staff Report on Burrowing Owl Mitigation* as a reference. All survey efforts should be conducted prior to any Project habitat disturbance to soil, vegetation, or other sheltering habitat for burrowing owl.

D-10

Mitigation Measure 2:

Permanent impacts to occupied burrowing owl burrows and adjacent foraging habitat should be mitigated for by setting aside replacement habitat to be protected in perpetuity under a conservation easement dedicated to a local land conservancy or other appropriate entity. CDFW recommends the City require a burrowing owl mitigation plan be submitted to CDFW for review and approval prior to Project implementation.

D-11

Mitigation Measure 3:

Project use of rodenticides that could result in direct or secondary poisoning to burrowing owl should be avoided.

D-12

Comment #5: Foothill Yellow-Legged Frog State Status

Section: Appendix C Special-Status Species

Issue: Appendix C of the draft EIR identifies that foothill yellow-legged frog is a state species of special concern. However, foothill-yellow legged frog clades are listed under CESA. On December 11, 2019, Fish and Game Commission listed the Southwest/South Coast, West/Central Coast, and East/Southern Sierra clades of foothill yellow-legged frog as endangered and listed the Northeast/Northern Sierra and Feather River clades as threatened (Fish and Game Commission 2019).

Recommendation:

CDFW recommends that the state listing status of foothill yellow-legged frog be revised to indicate that the Southwest/South Coast, West/Central Coast, and East/Southern Sierra clades of foothill yellow-legged frog are state endangered, and the Northeast/Northern Sierra and Feather River clades are state threatened within the EIR.

D-13

Comment #6: Tricolored Blackbird State Status

Section: Appendix C Special-Status Species

Issue: Appendix C of the draft EIR identifies that tricolored blackbird is a state candidate threatened species and a state species of special concern. However, on April 19, 2018, Fish and Game Commission listed tricolored blackbird as threatened under CESA, and regulation went into effect on March 18, 2019 (California Fish and Game Commission 2018).

D-13 cont.

Recommendation:

CDFW recommends that the state listing status of tricolored blackbird is revised to indicate that tricolored black bird is a state threatened species under CESA and state species of special concern.

D-14

Comment #7: Impacts to Sensitive Plant Species

Section: Appendix C Special-Status Species

Issue: CDFW considers plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3 and S-4 as sensitive and declining at the local and regional level (Sawyer et al. 2008). The final EIR should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from project-related direct and indirect impacts.

Pursuant to Fish and Game Code Section 1940, CDFW maintains a vegetation mapping standard for the state (FGC § 1940). This standard complies with the National Vegetation Classification System, which utilizes alliance and association based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the Manual of California Vegetation (MCV), found online at http://vegetation.cnps.org/. In order for the EIR to determine the rarity ranking of vegetation communities on the Project site, the MCV alliance/association community names should be provided as CDFW only tracks rare natural communities using this classification system.

CDFW considers natural communities with ranks of S1-S3 to be sensitive natural communities that should be addressed in CEQA (CEQA Guidelines § 15125[c]). An S3 ranking indicates there are 21-80 occurrences of this community in existence in California, S2 has 6-20 occurrences, and S1 has less than 6 occurrences.

Specific impact: Due to Project related activities, such as the construction of sediment retention basins, vegetated filter strips, riparian buffer areas, installation of efficient irrigation systems, runoff management features (e.g., swales), bioreactors, establishment of riparian vegetation that would require existing agricultural crop/vegetation removal, tilling, and planting of new vegetation, the Project may result in a substantial adverse effect, either directly or indirectly, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or the USFWS.

Why impact would occur: Take of special status plant species, including state- and federally- listed species, may occur without adequate detection, avoidance and mitigation measures.

Evidence impact would be significant: Impacts to special status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. To fully mitigate for take of plants listed under CESA, or rare plants listed

under the Native Plant Protection Act (Fish & G. Code §1900 *et seq.*), further consultation with CDFW may be required.

D-14 cont.

Recommendation:

CDFW recommends conducting a spring survey for sensitive/rare plants on-site and disclosing the results in the final EIR.

D-15

Mitigation Measure 1:

CDFW recommends avoiding any Sensitive Natural Communities found on or adjacent to the Project. If avoidance is not feasible, CDFW recommends mitigating at a ratio of no less than 5:1 for impacts to S3 ranked communities and 7:1 for S2 communities. This ratio is for the acreage and the individual plants that comprise each unique community.

D-16

Mitigation Measure 2:

If the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a plant species designated as rare, endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options (Fish & G. Code, §§ 2080.1, 2081, subds. [b], [c]). Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain CESA authorization. Revisions to the Fish and Game Code, effective January 1998, may require CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the fully mitigated requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for an ITP.

D-17

Comment #8: Impacts to CESA-Listed Species

Section: Appendix C Special-Status Species

Issue: CDFW considers adverse impacts to special status species protected by CESA and the federal Endangered Species Act (ESA) (16 U.S.C. §1531 *et seq.*), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any state endangered, threatened, candidate species, or listed rare plant species pursuant to the Native Plant Protection Act that results from the Project is prohibited, except as authorized by state law (Fish & G. Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill".

Specific Impacts: The Project has the potential to impact tricolored blackbird (state candidate listing), Swainson's hawk, San Joaquin kit fox, and California tiger salamander. Project related activities, such as the construction of sediment retention basins, vegetated filter strips, riparian buffer areas, installation of efficient irrigation systems, runoff management features (e.g., swales), bioreactors, establishment of riparian vegetation that would require existing agricultural crop/vegetation removal, tilling, and planting of new

vegetation, could lead to the direct or indirect mortality of listed animal and/or plant species.

D-17 cont.

Why impact would occur: Take of state- and federally- listed species, may occur without adequate detection, avoidance and mitigation measures.

Evidence impacts would be significant: Project impacts may result in substantial adverse effects, either directly or through habitat modifications, on a species protected under CESA.

D-18

Recommendation 1:

CDFW considers a Swainson's hawk nest site to be active if it was used at least once within the past five years and impacts to suitable habitat or individual birds within a five-mile radius of an active nest as significant. The Project could potentially contribute to the abandonment of an active nest and/or the loss of significant agricultural foraging habitat for a given nest territory and thus result in "take" as defined under CESA. CDFW recommends conducting focused surveys for Swainson's hawk. If take of Swainson's hawk would occur from Project construction or operation, an ITP would be required for the Project.

D-19

Recommendation 2:

Any removal of existing crops should include preconstruction tricolored blackbird surveys and assess the potential impacts of the removal of suitable tricolored blackbird habitat. The California Fish and Game Commission acted at its April 19, 2018 meeting in Ventura, CA on the petition to list tricolored blackbird as a threatened species pursuant to sections 2075 and 2075.5 of the Fish and Game Code. Tricolored blackbirds are found year-round in cismontane southern California and have been documented to nest in much smaller colonies than the typical central/northern California mega colonies on farmland. Nesting takes place in native emergent marshes, silage and other grain fields, thickets of the introduced Himalayan blackberry, thistle, and other flooded and upland habitats. Most nesting colonies are in cattail marshes but may also be in blackberry thickets or stands of black mustard. CDFW recommends conducting focused surveys for tricolored blackbird. If take of tricolored blackbird would occur from Project construction or operation, an ITP would be required for the Project.

D-20

Recommendation 3:

If the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a plant or animal species designated as rare, endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an ITP or a consistency determination in certain circumstances, among other options (Fish & G. Code §§ 2080.1, 2081, subds. [b],[c]). Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain CESA authorization. Revisions to the Fish and Game Code, effective January 1998, may require CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring

D-20 cont. and reporting program that will meet the fully mitigated requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for an ITP.

Comment #9: Sediment Basins

Section: 3.3 Biological Resources, Impact BIO-1

Issue: The use of sediment retention basins may cause indirect impacts to special-status species.

D-21 Evidence the impact would be significant: If sediment retention basins are not constructed properly, the failure of these structure may cause substantial sediment issues by delivering large sediment loads to streams. Artificial water sources (e.g., ponds and retention basins) may also become breeding habitat for invasive species such as the American bullfrog, which prey on native species including California red-legged frogs and foothill yellow-legged frogs (Kiesecker et al. 2001, Fuller et al. 2011, Moyle 1973, Kiesecker and Blaustein 1997, 1998, Kupferberg 1997). Also, the presence of artificial water sources can increase the spread of invasive Argentine ants which displace native invertebrates (Human and Gordon 1997, Holway et al. 2002).

Recommendation 1:

D-22 CDFW recommends that individual projects develop a Non-Native Species Management Plan in coordination with a qualified biologist to prevent non-native species from establishing within and surrounding the retention basins.

Recommendation 2:

D-23 CDFW recommends minimizing night lighting near retention basins to minimize frog attraction.

ENVIRONMENTAL DATA

D-24 CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

D-25 The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the

D-25 cont. Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

D-26 CDFW appreciates the opportunity to comment on the DEIR to assist Central Coast Water Board in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Karen Carpio, Senior Environmental Scientist at (916) 376-8653 or Karen.Carpio@wildlife.ca.gov.

Sincerely,

Fernando Galli
Acting Chief

cc: Office of Planning and Research, State Clearinghouse, Sacramento

ec: California Department of Fish and Wildlife

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REFERENCES

California Fish and Game Commission Notice of Findings for Foothill Yellow-Legged Frog (Rana boylii), March 10, 2020

California Fish and Game Commission Notice of Findings for Tricolored Blackbird (Agelaius tricolor), April 19, 2018

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Kiesecker, J. M., A. R. Blaustein, and C. L. Miller. 2001. Potential mechanisms underlying the displacement of native red-legged frogs by introduced bullfrogs. Ecology 82:1964–1970.

Kupferberg, S. J. 1997. Bullfrog (*Rana catesbeiana*) invasion of a California river: the role of larval competition. Ecology 78:1736–1751.

Moyle, P. B. 1973. Effects of introduced bullfrogs, *Rana catesbeiana*, on native frogs of the San Joaquin Valley, California. Copeia 1973:18–22.

State of California Natural Resources Agency Department of Fish and Wildlife (2019). Report to the Fish and Game Commission A Status Review of the Foothill Yellow-Legged Frog (Rana boylii) in California.

Response to Comment D-1

The comment states that the California Department of Fish and Wildlife (CDFW) received the Notice of Availability and appreciates the opportunity to provide comments on the DEIR. The comment is noted.

Response to Comment D-2

The comment outlines CDFW's jurisdiction and California Environmental Quality Act (CEQA) responsibilities and concerns with respect to resources under its purview. The comment also asserts that the Proposed Project may result in "take" of species protected by the California Endangered Species Act (CESA) and California Fish and Game Code (CFGC). The comment is noted.

Response to Comment D-3

The comment presents the Proposed Project proponent, objectives, location, and timeframe. The comment is noted.

Response to Comment D-4

The comment establishes CDFW's comments on the Proposed Project relating to identifying impacts and/or mitigation expected to be necessary regarding natural resources subject to CDFW jurisdiction. The comment asserts that an Environmental Impact Report (EIR) is appropriate for the Proposed Project given the claim of significant or potentially significant "direct and indirect impacts on fish and wildlife (biological) resources." The comment is noted.

Response to Comment D-5

The comment concerns stream/riparian setback priority designation areas in the DAO 4.0 not designating the upstream reaches of the Pajaro River and major tributaries. CDFW asserts that the upstream reaches of the Pajaro River and major tributaries should receive priority designation (Priority 3 or, at a minimum, Priority 4 is recommended by CDFW for these streams) for a greater riparian setback distance and that this setback apply to stream segments where riparian vegetation is absent. The comment indicates that nutrient pollution in surface waters of the Upper Pajaro River and tributaries has been a long-term problem and that irrigated agriculture likely contributes the majority of nutrient loads to streams, which provide habitat for numerous protected species.

Thank you for your comment regarding the operational riparian setback of the upstream reaches of the Pajaro River and its major tributaries. Please note that RAO 4.0 does not include the riparian or operational setback components. Please refer to Master Response 2.8.8. The purpose and objectives of the Proposed Project are stated in Section 2.4 of the DEIR and center on reducing irrigated agricultural pollutant effects on groundwater and surface water, as well as protecting riparian and wetland habitat. The Proposed Project is expected to result in a net improvement to water quality on streams within the Pajaro River watershed by reducing potential irrigated agriculture contributions of pollutants.

Response to Comment D-6

The comment indicates that the Santa Clara Valley Habitat Plan (SCVHP) is also a Natural Community Conservation Plan (NCCP) and should be described as such in the revised environmental document. CDFW proposes that the riparian/stream setbacks in Agricultural Order 4.0 defer to the SCVHP stream setback distances. The SCVHP is acknowledged as an NCCP and the text in Chapter 3.3.4, Impact BIO-6 has been updated to reflect this. The commenter is correct in that the SCVHP is within the Proposed Project; however, the SCVHP does not regulate or apply to ongoing, active agricultural practices. Therefore, the stream setbacks established by the SCVHP do not apply to irrigated agriculture. Further, RAO 4.0 prohibits the disturbance of existing, naturally occurring, and established native riparian vegetative cover.

In addition, please refer to Master Response 2.8.8.

Response to Comment D-7

The comment asserts that Mitigation Measure BIO-1 in the DEIR directs the enrollee to "minimize disturbance", which CDFW interprets as a relative term. CDFW recommends the FEIR include more detailed guidance on how dischargers may avoid and minimize impacts. Mitigation Measure BIO-1 directs the enrollee to "avoid and minimize disturbance of riparian and other sensitive vegetation communities." This requirement is further qualified with additional guidance that may require the enrollee to retain a qualified biologist to identify such sensitive biological resources (e.g., sensitive vegetative communities, special-status species), to accurately avoid and minimize potential impact to these communities. The last bullet requires the enrollee to undertake an additional CEQA review and a restoration or compensation plan in consultation with CDFW to mitigate the loss of sensitive biological resources, where adverse effects on such resources cannot by avoided.

The second portion of the comment addresses Impact BIO-2 and indicates that the "DEIR does not include a full analysis to support the conclusion that riparian habitat removed by the Proposed Project would be less than significant." The comment also recommends that the total area of riparian vegetation or number of shrubs and trees removed as a result of the Proposed Project be compared with the total riparian area or number of riparian trees and shrubs created, and that riparian habitat removed and created should be tracked by the CCWB "as a whole for the Project area." Please see Response to Comment D-5, which describes that RAO 4.0 does not include the riparian or operational setback components, and Response to Comment D-6, which discusses the riparian vegetative cover disturbance prohibition included in DAO 4.0. Also, note that the RAO 4.0 includes a requirement for dischargers with waterbodies within or bordering their ranch to measure and report the current riparian area (average width and length, in feet) in the Annual Compliance Form.

In addition, please refer to Master Response 2.1.3.

Response to Comment D-8

The comment suggests that a timeline be established (e.g., every 5 years) in which the amount of riparian habitat loss or gain is totaled. The comment further states that if there is a net loss of riparian habitat over the established timeline, that additional mitigation may warranted to offset the loss and additional CEQA analysis may be necessary. Please see Response to

Comment D-5, which describes that the RAO 4.0 does not include the riparian or operational setback components, and Response to Comment D-6, which discusses the riparian vegetative cover disturbance prohibition included in RAO 4.0. Also, see Response to Comment D-7, which discusses the requirement in RAO 4.0 for dischargers to monitor and report on the riparian vegetation area within or bordering their ranch. This requirement will serve as a means to track riparian habitat gain or loss over time.

In addition, please refer to Master Response 2.8.8

Response to Comment D-9

The comment establishes suitable habitat for burrowing owls and indicates this species is not analyzed in the DEIR. CDFW asserts that the Proposed Project may impact burrowing owls or contribute to declines of this species, which has experienced major reductions across most populations throughout California. The comment recommends that the DEIR be revised to include a mitigation measure to implement surveys consistent with CDFW's March 7, 2012 *Staff Report on Burrowing Owl Mitigation* prior to Proposed Project impacts. Burrowing owl was considered in the DEIR as it is included in Appendix C, *Special-status Species List.* Periodic flooding of irrigated lands is likely not conducive to supporting burrowing owl burrow habitat, though the species could forage in irrigated lands. Please see Response to Comment D-7, which discusses Mitigation Measure BIO-1. Specifically, the requirements in bullets 2 through 4 of Mitigation Measure BIO-1 would avoid and minimize possible take of burrowing owl and occupied habitat. Should the action of an enrollee have potential to unavoidably take burrowing owl and occupied habitat, bullet 5 of Mitigation Measure BIO-1 requires additional CEQA review and the development of a restoration or compensation plan in consultation with CDFW to mitigate the loss of the resources. The pursuant CEQA review and resulting consultation with CDFW may result in requiring the implementation of the commenter's proposed *Mitigation Measure 1* at that time.

Response to Comment D-10

The comment recommends that the DEIR be revised to include a mitigation measure to mitigate permanent impacts to purported burrowing owl habitat through compensatory land acquisition and deeds to local land conservancies and protected in perpetuity. Please see Response to Comment D-9.

Response to Comment D-11

The comment recommends that the DEIR be revised to include a mitigation measure to direct enrollees to avoid the use of rodenticides to avoid direct or secondary poisoning of burrowing owl. The Proposed Project does not include changes to the use of rodenticides from existing/baseline conditions.

Response to Comment D-12

The comment asserts that foothill yellow-legged frog Southwest/South Coast, West/Central Coast, and East/Southern Sierra clades are listed as "endangered" under CESA. The comment further clarifies that the species' Northeast/Northern Sierra and Feather River clades are listed as "threatened" under CESA. The DEIR text has been updated in the FEIR (see Appendix C in

Volume 2 of the FEIR) to reflect foothill yellow-legged frog's current listing status under CESA as "endangered" within the Proposed Project area.

Response to Comment D-13

The comment asserts that tricolored blackbird is a "threatened" species under CESA. Appendix C of the DEIR has been updated in the FEIR (see Volume 2) to reflect this species' current status.

Response to Comment D-14

The comment indicates that special-status plant species and sensitive natural communities afforded legal protections on the State level fall under CDFW's purview. CDFW asserts that the FEIR should more thoroughly discuss the presence/absence of such resources, as well as protection measures from Proposed Project-related impacts. Special-status plant species considered were analyzed in Appendix C. The Proposed Project requires the implementation of Mitigation Measure BIO-1, which would avoid and minimize impacts to sensitive biological resources. Please see Responses to Comments D-7, D-8, and D-9 regarding identifying sensitive biological resources (including special-status plants and sensitive natural communities), avoiding and minimizing these resources, and further CEQA review and potential development of a restoration or compensation plan in consultation with CDFW to mitigate potential loss.

The second paragraph of the comment provides information about the National Vegetation Classification System and states that CDFW uses the Manual of California Vegetation (MCV) convention. CDFW requests the MCV convention be used to describe natural communities within the Proposed Project area. The comment also indicates natural communities with ranks of S1-S3 are considered "sensitive" by CDFW. The comment asserts that the Proposed Project could adversely affect protected species and sensitive natural communities through Proposed Project construction activities, and such impacts would need to be fully mitigated to achieve a less-than-significant level. CDFW recommends conducting a spring survey for special-status plant species and disclosing the result in the FEIR. Regarding the MCV characterization of vegetation communities within the Proposed Project, the Proposed Project largely applies to existing and future irrigated agricultural lands within the central coast region. Any improvements (i.e., management practices) installed on or adjacent to these lands as a result of Ag Order 4.0 are required to avoid and minimize disturbance to areas containing special-status plant or animal species, as specified under Mitigation Measure BIO-1. Where construction of management practices cannot avoid such sensitive biological resources, the enrollee would prepare an assessment of habitat conditions and the potential for presence of sensitive vegetation communities or special-status plant and animal species prior to construction. Please see Response to Comment D-9 for discussion of the Mitigation Measure BIO-1 requirements.

Response to Comment D-15

The comment recommends a mitigation measure that requires the avoidance of any sensitive natural communities found in or adjacent to the Proposed Project. Please see Response to Comment D-7. If impacts are unavoidable, necessary mitigation will be determined through a future CEQA review and the ratio determined in consultation with CDFW, per Mitigation Measure BIO-1.

Response to Comment D-16

The comment recommends a mitigation measure, which requires the enrollees to pursue an incidental take permit from CDFW if protected plant species will be impacted by the Proposed Project construction activities. Please see Response to Comment D-9 as the same would apply to sensitive natural communities and special-status plants found.

Response to Comment D-17

The comment asserts that the Proposed Project could impact CESA-listed species through construction of the Proposed Project improvements, and that such impacts need to be fully mitigated to achieve a less-than-significant determination. Please see Responses to Comments D-7, D-8, D-9, and D-14.

Response to Comment D-18

The comment indicates that CDFW considers a Swainson's hawk nest that has been used once within the past five years as active, and the removal of such a nest is viewed by CDFW as "take" as defined under CESA. The comment recommends conducting focused surveys for Swainson's hawk nests if Proposed Project construction would take Swainson's hawk. Please see Response to Comment D-9 as the same would apply to Swainson's hawk and their nest sites.

Response to Comment D-19

The comment indicates that removal of existing crops should include tricolored blackbird surveys and assess the potential impact of removing suitable habitat for the species. The comment describes tricolored blackbird habitat and CDFW recommends conducting focused surveys for the species, as well as pursuing an incidental take permit prior to Proposed Project construction. Please see Response to Comment D-9 as the same would apply to tricolored blackbird and their nesting colonies regarding construction activities that could occur as a result of the Proposed Project. Note that RAO 4.0 no longer includes the riparian or operational setback requirements (which could have resulted in the removal of existing crops), but the RAO 4.0 continues the existing prohibition on removal of riparian habitat.

Response to Comment D-20

The comment recommends that an incidental take permit be obtained from CDFW prior to construction of the Proposed Project improvements if CESA-listed species would be taken. CDFW also indicates that a separate project CEQA document may be necessary to address impacts to CESA-listed species and describe the details of a mitigation monitoring and reporting program to fully mitigate impacts and reduce effects to a less-than-significant level. The comment is noted.

Response to Comment D-21

The comment indicates that the Proposed Project's creation of sediment basins could create artificial water sources that encourage the spread of invasive wildlife species, which could threaten native and protected species. Please see Responses to Comments D-7, D-8, D-9, and D-14. Invasive species (American bullfrog, Argentine ants) would be absent from sediment basins following construction. If invasive species colonize sediment basins, this indicates that said species are already present within nearby habitat. The potential contribution of sediment

basins, which will be maintained, to invasive species presence within the Proposed Project is not expected to be significant.

Response to Comment D-22

The comment recommends the Proposed Project develop a Non-Native Species Management Plan with a qualified biologist to prevent non-native species from becoming established within and around sediment basins. Please see Response to Comment D-21.

Response to Comment D-23

The comment recommends minimizing night lighting near retention basins to minimize frog attraction. Please see Response to Comment D-21.

Response to Comment D-24

The comment indicates that CEQA requires information developed in EIRs and negative declarations be incorporated into a publicly available database to make subsequent or supplemental environmental determinations. CDFW requests that any special-status species observations be reported to the California Natural Diversity Database. The DEIR and this FEIR, as well as all reference lists have been made publicly available during the comment periods. The comment is noted.

Response to Comment D-25

The comment indicates that the Project, as proposed, would have an impact on fish and/or wildlife. CDFW asserts that the Proposed Project proponent would need to pay a fee to CDFW upon filing the Notice of Determination to help defray the cost of their environmental review. The Lead Agency (CCWB) will pay necessary environmental review fees to CDFW upon filing the Notice of Determination.

Response to Comment D-26

The comment indicates CDFW's appreciation for the opportunity to comment on the DEIR and assist the CCWB in identifying and mitigating potential impacts on biological resources. Thank you for your review of the DEIR and thoughtful comments.

Letter E: Jordan Cunningham, Assembly California Legislature, 35th District (June 19, 2020)

Letter E

From: Melody, Taylor
To: AgNOI_WB@Waterboards
Subject: Assemblyman Cunningham Ag. Order 4.0 Public Comment Letter
Date: Friday, June 19, 2020 3:37:03 PM
Attachments: image001.png
Ag Order 4.0 Letter - Assemblyman Cunningham.pdf

EXTERNAL:

Good Afternoon,

My name is Taylor Melody and I am with the office of State Assemblyman Jordan Cunningham. The reason I am reaching out is because the Assemblyman wanted to send the attached letter to the Board for their upcoming hearing regarding the draft Ag. Order 4.0 recommendations. If you need anything else from us, please do not hesitate to reach out. Thank you so much and have a great rest of your day!

Taylor Melody
Legislative Director
Assemblyman Jordan Cunningham, 35th District
P. 916-319-2035 | F. 916-319-2135
Pronouns: He/Him/His y El/Ellos
Taylor.Melody@asm.ca.gov

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Assembly
California Legislature

JORDAN CUNNINGHAM
ASSEMBLYMEMBER, THIRTY-FIFTH DISTRICT

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VICE CHAIR: RULES
AGRICULTURE
BUSINESS AND PROFESSIONS
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UTILITIES AND ENERGY

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CAREER TECHNICAL EDUCATION AND BUILDING A 21ST CENTURY WORKFORCE
CENSUS
CYBERSECURITY

June 19, 2020

Matthew Keeling, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
By email to AgNOI@waterboards.ca.gov

Re: Comments on Draft Ag Order 4.0

Mr. Keeling,

E-1 As the representative for the 35th State Assembly District encompassing both San Luis Obispo and Santa Barbara Counties, I am greatly concerned about the proposed changes to the Regional Water Board's Irrigated Lands Regulatory Program, also known as Ag Order 4.0. The need for protecting our water quality resources is unquestionable, but so too is the need for our San Luis Obispo County farmers to be able to grow food. As drafted, Ag Order 4.0 would devastate farmers and threaten our local food supply, and do so at time of great economic uncertainty for the agriculture community.

E-2 Since being elected to the Legislature, I have used my voice to advocate for the farmers and ranchers in my district and fight back against over-burdensome regulations. Using my seat on the State Assembly Agriculture Committee, I have voted for numerous pieces of legislation that achieve a balance of effective environmental protection progress and forward-thinking policies to help the agriculture industry compete and succeed in today's economy. However, all of this was done with input and compromise from all stakeholders. I am disappointed to hear that Ag Order 4.0 appears to be a one-sided affair and concerns from constituents in my district were ignored.

E-3 It appears that the proposed nitrogen limits will preclude farmers from planting multiple crops per year, an essential practice on vegetable farms in our region. These limits do not seem practical or based on agronomic science. In addition, the new riparian setback

E-4 requirements will take valuable farmland out of production, increase management costs, and threaten food safety to consumers. The riparian vegetative mandate is not

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Assembly
California Legislature

JORDAN CUNNINGHAM
ASSEMBLYMEMBER, THIRTY-FIFTH DISTRICT

COMMITTEES
CO-CHAIR: ETHICS
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CENSUS
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E-4 cont. consistent the Regional Water Board's authority to manage the Waste Discharge Requirements Order.

E-5 By making farming on the Central Coast even more cost prohibitive than it already is, Ag Order 4.0 will certainly lead to job losses and financial hardship for our farm families and agriculture businesses. Ag Order 4.0 disproportionally affects small farms. Smaller operations cannot afford to hire experts to wade through the hundreds of pages of this Order and meet its new compliance, monitoring and reporting rules. The Regional Water Board has fallen grossly short in quantifying or even recognizing these and other practical costs in the Draft Environmental Impact Report (DEIR).

E-6 I hope you will take a new approach to working with our San Luis Obispo County farmers, who are not just another regulated community. We can find reasonable, effective approaches to preserving water quality, but the draft Ag Order fails to find an appropriate balance. I look forward to working with you and the rest of the Central Coast Regional Water Quality Control Board on finding a sensible approach to the issues facing not only the Central Coast, but also the entire agriculture industry of California. If I can be of any help in getting to work on these issues, please feel free to reach out to my Legislative Director, Taylor Melody, at Taylor.Melody@asm.ca.gov.

Sincerely,

Jordan Cunningham
Assemblymember, 35th District

Response to Comment E-1

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

Response to Comment E-2

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

Response to Comment E-3

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

Response to Comment E-4

This comment is responded to in Master Response 2.8.8.

Response to Comment E-5

This comment describes the Assembly Member's concerns related to increased costs to farms, notably small farmers, and potential loss of jobs as a result of implementation of Agricultural Order 4.0. This comment specifically asserts that the CCWB has fallen short in quantifying and acknowledging economic impacts as part of the DEIR. In response to comments related to the sufficiency of the DEIR's analysis of adverse economic impacts, refer to Master Response 2.10. In addition, please refer to Master Response 2.9.1.

Response to Comment E-6

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

3.2.3 Local Agencies

Letter F: Mike LeBarre, City of King (June 10, 2020)

Letter F

From: Erica Sonne
To: AgNOI, WB@Waterboards
Subject: Comments of Draft AG Order 4.0
Date: Wednesday, June 10, 2020 7:58:41 AM
Attachments: image001.png
Comments of Draft AG Order 4.0.pdf

EXTERNAL:

From City of King Mayor LeBarre

Erica Sonne, CMC
Executive Admin. Asst./Deputy City Clerk
City of King
212 S. Vanderhurst Ave.
King City, CA. 93930
831-386-5971
esonne@kingcity.com

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From: Erica Sonne
Sent: Wednesday, June 10, 2020 7:56 AM
To: Steve Adams <sadams@kingcity.com>
Subject: Comments of Draft AG Order 4.0

I believe this is the one you wanted to forward electronically and I will mail original.

Erica Sonne, CMC
Executive Admin. Asst./Deputy City Clerk
City of King
212 S. Vanderhurst Ave.
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June 9, 2020

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

RE: Comments of Draft AG Order 4.0

Dear Mr. Keeling:

F-1 On behalf of the City of King, the City Council has unanimously voted to submit our concerns and opposition to Ag Order 4.0, the Central Coast Irrigated Lands Regulatory Program as currently proposed. The City of King is very supportive of efforts to improve water quality, reduce runoff and protect local rivers and streams. The City is working hard and coordinating with your staff to comply with all the Regional Water Quality Control Board's regulations. In fact, the City is in the process of moving forward with a new $46 million wastewater treatment plant project, the most costly project in the City's history.

F-2 However, the City believes proposed Ag Order 4.0 cannot be implemented without extreme changes to complex farming practices and the crops grown, how many crop cycles are produced in any season, and the abandonment of lands due to on-farm restrictions of production practices. The components of Ag Order 4.0 will impose significant costs on Central Coast growers. Some regulatory components, such as proposed nitrogen discharge limits, may make current rotation systems infeasible.

F-3 This would result in substantial economic impacts that were not adequately quantified or discussed in the Draft Environmental Impact Report (DEIR). The DEIR even states that economic effects were not estimated because the market and regulatory environment is complicated and/or because management practices are speculative. We are very concerned that the unintended consequence of this new program is that our community will suffer through higher unemployment, lower tax revenues, and changing land use. Especially hard-hit will likely be the Salinas Valley communities that are primarily dependent on the agricultural sector since many or our residents are employed either directly or indirectly in farming.

Therefore, we urge you to reconsider and/or make significant revisions to Ag Order 4.0. Thank you for your consideration of our input.

Sincerely,

Mike LeBarre
Mayor

City Hall, 212 South Vanderhurst Ave. King City, CA 93930
Tel: (831) 385-3281 • Fax (831) 386-5968 • www.kingcity.com

Response to Comment F-1

Thank you for your comment. The CCWB acknowledges the City of King's opposition to DAO 4.0.

Response to Comment F-2

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

Response to Comment F-3

Thank you for your comment. 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 on the economic impact analysis methodology as part of the DEIR, including the requirements of the CEQA Guidelines, refer to Master Response 2.10. In response to concerns related to physical changes to the environment (e.g., changing land use) as a result of economic impacts, refer to Response to Comment F-2 above and Section 3.5 of the DEIR.

Letter G: Chris Lopez, Monterey County (June 12, 2020)

Letter G

From: Barba, Priscilla x3019
To: AgNOI, WB@Waterboards
Subject: Comments of Draft Ag Order 4.0
Date: Friday, June 12, 2020 2:09:39 PM
Attachments: Sup. Lopez Comment .pdf

EXTERNAL:

Dear Central Coast Regional Water Quality Control Board,

Please see attached letter regarding Draft Ag Order 4.0. on behalf of Monterey County Supervisor Chris Lopez.

All the best,

Priscilla Barba | Chief of Staff
Office of Supervisor Chris Lopez
County of Monterey | District 3
168 W. Alisal St., 3rd Floor, Salinas, CA 93901
(ph) 831.755.5033 | (fx) 831. 796.3022

MONTEREY COUNTY

THE BOARD OF SUPERVISORS
Chris Lopez, Supervisor-Third District

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DISTRICT3@CO.MONTEREY.CA.US
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June 12, 2020

Dear Central Coast Regional Water Quality Control Board,

G-1 I write to express concern about the scope of the economic impacts that the proposed Irrigated Lands Regulatory Program (Ag Order 4.0) will cause to my community. The extent of these impacts has not been accurately reviewed in the draft Environmental Impact Report (DEIR), and pose an uncertain future for our farming sector and our local, agriculturally based, economy.

G-2 The proposed Ag Order 4.0 expands requirements for irrigation and nutrient management that includes limits on the amount of fertilizers that can be used in crop production. The riparian set-back requirements propose to take many thousands of acres out of prime production lands into permanent quasi-conservation easements, reducing crop yields per farm and impacting viability of the complex lease rotation structure that exists in the Salinas Valley. Requirements for management of sediment and erosion on sloped lands will mandate costly plan development and on-farm measures, and probably will eliminate significant production on slopes > 5%.

G-3 The DEIR includes estimates of some costs and requirements that would almost certainly result in changes in the physical farming environment. Costs of nitrogen discharge requirements, compliance with surface water discharge limits, riparian set-back areas, and other key substantive provisions are *not* estimated. While the DEIR states that economic effects are not estimated because the market and regulatory environment is complicated, there is in fact a well-established and widely used approach to quantify the economic impacts of this new regulatory program. This review should be undertaken to ensure that all impacts are identified for the communities that depend on the success of their local agricultural economy.

G-4 The broader economic impacts of this new regulatory program will be a reduction in agricultural production due to reduced crop yields and rotations, along with dedicated lands to riparian areas, ultimately resulting in increases to our local unemployment statistics, reduced tax revenues, and substantial land use changes. These impacts cannot be minimized and should be thoroughly understood before taking this program to adoption.

G-5 Bottom line: Central Coast Regional Water Quality Control Board is proposing an onerous and restrictive regulatory program in a time of great economic uncertainty for our farming community. Regulatory cost increases and severe compliance requirements will not help our local farmers recover from the impacts that the pandemic has left us with.

G-6 As an elected official charged with ensuring economic recovery and stability in our area, I request that a full study of the economic impacts that Ag Order 4.0 will inflict on our farmers, their employees, and my community be performed before any implementation. As government representatives, you are charged with making decisions based on all the information, this incomplete document sketches a scene that may appear fine at first, but when the paint dries, it will be my communities that are left with the consequences of this deficient policy. We cannot, once again, afford to be an afterthought in your policy making.

G-7 Residents of my district often do not qualify for government programs due to a broken immigration system dependent on reform from Washington D.C. and this local policy making impacts them here at home as it will most certainly result in lost farmland, which means lost work.

Sincerely,

Supervisor Chris Lopez
Monterey County Supervisor
Third District

Response to Comment G-1

Thank you for your comment. In response to concerns related to cost considerations associated with complying with DAO 4.0, refer to Master Response 2.9.1. In response to concerns related to the economic impact analysis methodology as part of the DEIR, including the requirements of the CEQA Guidelines, refer to Master Response 2.10.

Response to Comment G-2

In response to concerns related to nitrogen discharge limits, refer to Master Response 2.1.2. In response to concerns related to riparian and operational setback requirements, refer to Master Response 2.8.8. In response to concerns related to management for sediment and erosion control, refer to Master Response 2.7.5. In response to concerns related to cost considerations associated with complying with DAO 4.0, refer to Master Response 2.9.1.

Response to Comment G-3

In response to concerns related to changes to the physical environment as a result of DAO 4.0 compliance costs, as discussed in Section 3.5 of the DEIR, compliance costs would be highly variable, depending on the characteristics of individual ranches/operations, including their crop mix, operating costs/capital, cash reserves, and other factors. These impacts would depend on the price of agricultural commodities, which can change from year to year or season to season for a number of reasons. As supported by the analysis in the DEIR, due to unknown and variable factors, it would be speculative to conclude that costs associated with DAO 4.0 would directly or indirectly result in a physical change to the environment. For more information regarding the cost considerations associated with complying with the DAO 4.0, see Master Response 2.9.1. For information related to compliance with the CEQA Guidelines as they relate to the analysis of economic impacts in the DEIR, refer to Master Response 2.10. Additionally, information related to nitrogen discharge limits, surface water discharge limits, and riparian and operational setback areas can be found in Master Responses 2.6 and 2.8.8.

Response to Comment G-4

Thank you for your comment. In response to concerns related to cost considerations associated with complying with DAO 4.0, refer to Master Response 2.9.1. In response to comments on the economic impact analysis methodology as part of the DEIR, including the requirements of the CEQA Guidelines, refer to Master Response 2.10. In response to concerns related to physical changes to the environment (e.g., changing land use) as a result of economic impacts, refer to Response to Comment G-3 above and Section 3.5 of the DEIR.

Response to Comment G-5

Thank you for your comment. Please refer to Master Response 2.1.2.

Response to Comment G-6

Thank you for your comment. In response to concerns related to cost considerations associated with complying with DAO 4.0, refer to Master Response 2.9.1.

Response to Comment G-7

Thank you for your comment.

Letter H: Willy Cunha, Shandon-San Juan Water District / Shandon-San Juan Groundwater Sustainability Agency (June 18, 2020)

Letter H

From: Stephanie Bertoux
To: AgNOI_WB@Waterboards
Cc: Willy Cunha
Subject: Comments on Ag Order 4.0 (1 of 5)
Date: Thursday, June 18, 2020 7:51:50 AM
Attachments: SSJ GSA - 1 - Wine Grapes.pdf

EXTERNAL:

On behalf of the Board of Directors of the Shandon-San Juan Groundwater Sustainability Agency, please find the attached comment letter on Ag Order 4.0. This is comment letter 1 of 5.

Thanks,
Stephanie

--
Stephanie Bertoux, Secretary/Treasurer
Shandon-San Juan Water District
P.O. Box 150, Shandon, CA 93461
(805) 451-0841
www.ssjwd.org

Shandon-San Juan Water District
Shandon-San Juan Groundwater Sustainability Agency

June 15, 2020

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

Re: Comments on Draft Ag Order 4.0

Dear Chairman Wolff and Members of the Board:

H-1 The Shandon-San Juan Groundwater Sustainability Agency (SSJ GSA) and Shandon-San Juan Water District (SSJWD) were created specifically to protect the groundwater and surface water resources of our area. All of us who live and work in the Paso Robles Groundwater Basin are highly reliant upon the annual precipitation that falls upon the Basin and surrounding watersheds to refill the Basin each year. SSJ GSA strongly supports the mission of the Central Coast Regional Water Quality Board and hopes to see an effective, practical, and achievable Ag Order 4.0 Final Draft that recognizes and protects this important water resource and the many benefits that arise from the multiple uses of that water.

H-2 **Wine Grapes should have a separate designation and management requirements under Ag Order 4.0.**

1. Wine grape vineyards are currently farmed well within the Board's desired Nitrogen and chemical limits that protect the groundwater resource.
    a. Wine grapes use only 1 to 1.9 acre-fee per year of water.
    b. Wine grapes use much lower rates of Nitrogen. UC recommends 10 to 25 lbs. of N per year. Many vineyards competing for higher value markets use less. These application rates are far below the rates Board Staff have set as hard targets for allowable Nitrogen remaining in the soil post-harvest by 2050.
    c. The local Vineyard industry has a history of being good stewards. Locally, viticulturists in the Paso Basin developed and supported the Vineyard Team and later the Vineyard Team's SIP certification. Statewide and locally winegrowers have created and broadly participated in the California Sustainable Winegrowing Program and Certification.
    d. **In recognition of the low input requirements of Wine Grapes and the good stewardship of Wine Grape Growers, Wine grapes deserve a separate management category u**nder AG Order 4.0.

Thank you for considering the input of the Shandon-San Juan GSA.

Sincerely,

Willy Cunha

Willy Cunha, President of the Board
Shandon-San Juan Water District / Shandon-San Juan Groundwater Sustainability Agency

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June 15, 2020

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

Re: Comments on Draft Ag Order 4.0

Dear Chairman Wolff and Members of the Board:

H-3 The Shandon-San Juan Groundwater Sustainability Agency (SSJ GSA) and Shandon-San Juan Water District (SSJWD) were created specifically to protect the groundwater and surface water resources of our area. All of us who live and work in the Paso Robles Groundwater Basin are highly reliant upon the annual precipitation that falls upon the Basin and surrounding watersheds to refill the Basin each year. SSJ GSA strongly supports the mission of the Central Coast Regional Water Quality Board and hopes to see an effective, practical, and achievable Ag Order 4.0 Final Draft that recognizes and protects this important water resource and the many benefits that arise from the multiple uses of that water.

H-4 **The Paso Robles Groundwater Basin,** actively managed under a single GSP by four active GSAs and dominated by wine grapes with small amounts of vegetable and tree crops, **deserves a separate designation and less burdensome Regulation under AG Order 4.0.**

H-5 a. 3rd Party groups working collaboratively with farmers, UC Researchers and Regional Board Staff would manage data collection, reporting and developing best management practices, but with less stringent requirements.

H-6 b. Crop specific guidance and rules would be applied to all crops and those with higher N application needs would be required to comply with the more stringent regulations applicable in other growing areas.

H-7 c. Ongoing testing and reporting of ground and surface waters is a critical component of GSP implementation and for compliance with our Regional Ag Order. This effort is open and public. These GSAs managing the Paso Robles Groundwater Basin and the Regional Board working through local 3rd Parties will continue to collect and make available in a local and publicly accessible fashion groundwater and surface water data including quality, extraction, and use.

H-8 d. There are very real reasons why people and businesses want to keep their private data private. With the current level of compliance with Water Board objectives and the limits contained in the proposed Order it is more than justifiable to allow Paso Basin operations working under the auspices of a 3rd party to **aggregate data** for reporting purposes. Detailed site-specific data would be available if testing suggested a need to verify or disaggregate data and sources.

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Shandon-San Juan Water District
Shandon-San Juan Groundwater Sustainability Agency

Comments on the draft Ag Order 4.0 (cont'd)

H-9 e. Much of the Nitrogen in the groundwater in the Paso Basin is a legacy, an artifact of practices from the 1950's through the 1970's when much of the Paso Basin and the surrounding watershed was actively cultivated and fertilized.

H-10 f. Measurements of preexisting legacy constituents in the groundwater should not be used to rate or grade current growing practices. More refined techniques to measure and understand the impacts of current agricultural inputs are needed.

H-11 g. When an area such as the Paso Basin, does things right, it should be recognized and rewarded. Not punished. The Regional Board should be encouraging all their growing areas to take as much care.

Thank you for considering input from the Shandon-San Juan GSA.

Sincerely,



Willy Cunha, President of the Board
Shandon-San Juan Water District / Shandon-San Juan Groundwater Sustainability Agency

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June 15, 2020

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

Re: Comments on Draft Ag Order 4.0

Dear Chairman Wolff and Members of the Board:

H-12 The Shandon-San Juan Groundwater Sustainability Agency (SSJ GSA) and Shandon-San Juan Water District (SSJWD) were created specifically to protect the groundwater and surface water resources of our area. All of us who live and work in the Paso Robles Groundwater Basin are highly reliant upon the annual precipitation that falls upon the Basin and surrounding watersheds to refill the Basin each year. SSJ GSA strongly supports the mission of the Central Coast Regional Water Quality Board and hopes to see an effective, practical, and achievable Ag Order 4.0 Final Draft that recognizes and protects this important water resource and the many benefits that arise from the multiple uses of that water.

H-13 **The Riparian protection in the Draft Ag Order 4.0 contains significant overreach**. We agree the Order should preserve and protect existing riparian areas. If evidence exists of recent disturbance or degradation of riparian areas, those areas should be identified, and projects implemented to restore and/or re-establish them. Language in the Order, such as that on page 43, section 13, should be modified to protect existing aquatic and riparian ecosystems and **not require landowners to create new riparian habitat where none has ever existed.** The soils, slopes, and relationship to nearby drainages of many specific sites that would be included in the current language of the Order are clearly incapable of supporting riparian vegetation. Requiring property owners to attempt to create riparian habitat in such conditions is illogical and ultimately an expensive fruitless waste of time, resources, and effort. The Order needs to include specific language to identify types of existing areas of riparian habitat and then site specific and appropriate procedures and processes to protect them.

H-14 a. **Requirements to restore, re-establish or to create new habitat should only occur in response to cases where a landowner has encroached, disturbed, or destroyed such habitat**.

H-15 b. Riparian setbacks are estimated to fallow over 4,000 acres in Findings Section 27, and those calculations seem to be an underestimate of the acres that could potentially be included by the current Order language.

H-16 c. In high priority areas, the requirements to "reestablish" riparian vegetation will be very expensive. The current ephemeral nature of the Ag Order's "Phases" places the whole of Region 3 at risk of inclusion to the Orders most restrictive and punitive dictates. The current language allows the requirement to apply to many miles of "streams" and dry washes where vast stretches could be ordered "restored" to habitats that in many stretches and areas never supported riparian plants and animals.

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Shandon-San Juan Water District
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Comments on the draft Ag Order 4.0 (cont'd)

H-16 cont.

Many acres of these areas if planted with riparian species the natural conditions will never support them. The current order allows the EO to expand riparian high priority areas to encompass the whole watershed.

H-17

d. Actual intent of Board Staff is likely more in alignment with our suggested approach, but the language in the Order needs to be specific, logical, proportional, and realistic. If there are specific sites where Staff would like to reach back farther in time to rectify past practices, those sites should be explicitly and completely described and any anticipated or expected remediation justified.

Thank you for considering input from the Shandon-San Juan GSA.

Sincerely,

Willy Cunha

Willy Cunha, President of the Board
Shandon-San Juan Water District / Shandon-San Juan Groundwater Sustainability Agency

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June 15, 2020

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

Re: Comments on Draft Ag Order 4.0

Dear Chairman Wolff and Members of the Board:

H-18 The Shandon-San Juan Groundwater Sustainability Agency (SSJ GSA) and Shandon-San Juan Water District (SSJWD) were created specifically to protect the groundwater and surface water resources of our area. All of us who live and work in the Paso Robles Groundwater Basin are highly reliant upon the annual precipitation that falls upon the Basin and surrounding watersheds to refill the Basin each year. SSJ GSA strongly supports the mission of the Central Coast Regional Water Quality Board and hopes to see an effective, practical, and achievable Ag Order 4.0 Final Draft that recognizes and protects this important water resource and the many benefits that arise from the multiple uses of that water.

Comments on Process in Ag Order 4.0:

H-19 a. Compliance "Targets" from the East San Joaquin precedential Order are being replaced in this Central Coast Ag Order 4.0 with hard limits without sufficient local data or input. Current data is inadequate to support the current hard limits. Some aspects are clearly arbitrary and subjective simply due to the lack of good data and practical experience. **This Order should prominently include an ongoing process where farmers and expert researchers work together collaboratively with Regional Board Staff to expand data collection and the understanding necessary to discover the best management practices, including finding optimal fertility application products and rates that both protect the ground and surface water and allow for productive agriculture to continue**.

H-20 i. The cooperative approach currently in operation in the Central Valley with Targets and data collection empowering informed decisions by 3rd Party Groups, UC Agronomists and Regional Staff makes a great deal more sense.

H-21 ii. In Findings page 113 #36 the Board clearly acknowledges that they do not have the authority to set production standards for private agriculture and that they need to analyze A/R values from the Central Coast to draw conclusions: "The Central Coast Water Board does not have the authority to require a minimum productivity ... and A/R values will be analyzed to determine if creating a metric for maximum A/R presents additional regulatory value in conjunction with the value presented by the maximum nitrogen surplus calculated through A-R."

H-22 iii. The Central Valley approach involving the farmers in forming local management groups, designing best approaches and best management practices, gathering data, and sharing data is a much more promising approach on so many levels.

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Comments on Process in Ag Order 4.0 (cont'd):

H-23 iv. The Danish approach (Findings page 114 #38) is similar to the San Joaquin Valley a cooperative effort with farmers and National Researchers involving robust data collection and analysis, guiding practical actions.

H-24 v. The current approach in Ag Order 4.0 reflects the justifiable frustration of the Board and its staff with how hard it is to understand and control current practices and practitioners. That in turn does not justify some of the poorly considered untried overly punitive aspects of the current approach. Especially the total disregard to the economic impact to the communities at large.

H-25 vi. Working together we can set specific targets with reasonable timelines to achieve them that will satisfy the Court Order against the Board and operate well within the constraints of the East San Joaquin Order while simultaneously protecting the critical economic benefits of irrigated agriculture to all the citizens of these Counties. Targets and timelines that would protect our shared ground and surface water resources from ongoing contributions from irrigated agriculture.

H-26 b. The Ag Order needs to clearly create a process where 3rd Party Farmer Groups working in close collaboration with UC Agronomists and Regional Board Staff have the opportunity and flexibility to create workable solutions to local conditions and specific problems.

H-27 c. The Ag Order needs to include an ongoing process to create useful and meaningful techniques to detect and measure current and ongoing contributions of chemicals of concern entering the groundwater column. The current legacy nitrogen levels in groundwater, while the result of many years of irrigated and dryland farming practices, require sophisticated metrics to measure the efficacy of current farming practices.

H-28 d. **Too much discretion is given to the Executive Officer with no real limits to that power**. There is no formal appeal process. The Order needs to include a better system to bring in and work with the Ag Community. It needs to include a specific appeal process within the Order for any action taken by Staff or the Executive Officer that go beyond the Scope of the Order. There is a need for specific language within the Order for the Board to act in a Public and official fashion as a check and balance to the Executive Officer and Staff. The Order should create an advisory committee including all interests to be advised of and to advise on all aspects of oversite.

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Comments on Process in Ag Order 4.0 (cont'd):

H-29

e. The current approach in Ag Order 4.0 by considering irrigated Ag as an "entity" applying for a Permit for a new use departs from the States long held support of and believe in Agriculture as a critical component of the States infrastructure and economy. These agricultural operations have been in operation for many years and are the backbone of their local economies. Active farming in this area predates Statehood. State and County Codes and Regulations specifically have long codified protections for agriculture and value its contributions. The State of California in **§ 51220** *finds "that the preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources, and is necessary not only to the maintenance of the agricultural economy of the state, but also for the assurance of adequate, healthful and nutritious food for future residents of this state and nation."* This Order myopically focused on the needed and positive goal of protecting water quality ignores the important contributions of irrigated agriculture and does not consider the ultimate impacts and reductions that this draft Order will create.

Thank you for considering input from the Shandon-San Juan GSA.

Sincerely,

Willy Cunha

Willy Cunha, President of the Board
Shandon-San Juan Water District / Shandon-San Juan Groundwater Sustainability Agency

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June 15, 2020

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

Re: Comments on Draft Ag Order 4.0

Dear Chairman Wolff and Members of the Board:

H-30 The Shandon-San Juan Groundwater Sustainability Agency (SSJ GSA) and Shandon-San Juan Water District (SSJWD) were created specifically to protect the groundwater and surface water resources of our area. All of us who live and work in the Paso Robles Groundwater Basin are highly reliant upon the annual precipitation that falls upon the Basin and surrounding watersheds to refill the Basin each year. SSJ GSA strongly supports the mission of the Central Coast Regional Water Quality Board and hopes to see an effective, practical, and achievable Ag Order 4.0 Final Draft that recognizes and protects this important water resource and the many benefits that arise from the multiple uses of that water.

The **Economic Analysis in the Ag Order 4.0 EIR is inadequate**.

H-31 a) The EIR does not measure or consider the economic impact from lost production due to the Order. The EIR mentions it in passing (p. 238) and in the Findings (p. 11 #27) it alludes to the importance of the economic impact.

H-32 1. The shortest perusal of the annual reports from the Ag Commissioners of the effected Counties will quickly demonstrated the economic importance of these irrigated crops to the well-being of the local economies.

H-33 2. Riparian setbacks are estimated to fallow over 4,000 acres in Findings Section 27, and those calculations seem to be an underestimate of the acres that could potentially be included by the current Order language.

H-34 3. In high priority areas the requirements to "re-establish" riparian vegetation will be very expensive. The current ephemeral nature of the Ag Order's "Phases" places the whole area of Region 3 at risk of inclusion to the Order's most restrictive and punitive dictates. The current language allows the requirement to apply to many miles of "streams" and dry washes where vast stretches could be ordered "restored" to habitats that in many stretches and areas never supported riparian plants and animals. Much of these areas if planted with riparian species, the soils and available water would never be able to support them. The current Order allows the EO to expand riparian high priority areas to encompass the whole watershed.

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Shandon-San Juan Water District
Shandon-San Juan Groundwater Sustainability Agency

Comments on Economic Analysis for Ag Order 4.0 (cont'd):

H-35 b) For vegetable growers, the hard limits and short timelines for nitrogen currently in the Order, will result in significant reductions in annual production that will definitely hurt the entire economy of these coastal Counties. Potentially Billions of Dollars lost in economic impact.

H-36 c) Staff acknowledges the comments and alternate plan submitted by the Agricultural interests but chose not to incorporate those ideas in the current version of Ag Order 4.0 with the flimsiest of rationalizations.

H-37 d) The low bar set in the EIR for analyzing economic impact is ludicrously low. "Increase costs for growers to such a degree that it would cause or result in growers going out of business, such that agricultural lands would be converted to non-agricultural uses". Further, the costs analyzed by Board Staff were the costs to comply with reporting, not the lost costs to production. The book-keeping costs to comply were underestimated in the EIR but are not the most significant impact from this Order.

H-38 e) In the face of the economic crises created by COVID-19, it is irresponsible for the Regional Board to further endanger the economies of the affected Counties unnecessarily. The current language and over punitive approach taken in Ag Order 4.0 is not necessary to address the ultimate goals of the Regional Board, compliance with recent court orders and the East San Joaquin Ag Order WQ 2018-0002.

Thank you for considering input from the Shandon-San Juan GSA.

Sincerely,



Willy Cunha, President of the Board
Shandon-San Juan Water District / Shandon-San Juan Groundwater Sustainability Agency

P.O. Box 150, Shandon, CA 93461
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Response to Comment H-1

Thank you for your comment. Please refer to Master Response 2.1.1.

Response to Comment H-2

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

Response to Comment H-3

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

Response to Comment H-4

This comment is summarized and responded to in Master Response 2.2.5.

Response to Comment H-5 through H-6

This comment is summarized and responded to in the following Master Responses: 2.2.2 and 2.2.3.

Response to Comment H-7

The comment is noted.

Response to Comment H-8

The comment is noted.

Response to Comment H-9

The comment is noted.

Response to Comment H-10

The comment is noted.

Response to Comment H-11

The comment is noted.

Response to Comment H-12

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

Response to Comment H-13 through H-16

This comment is responded to in Master Response 2.8.8.

Response to Comment H-17

The comment is noted.

Response to Comment H-18

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

Response to Comment H-19

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

Response to Comment H-20

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

Response to Comment H-21

This comment is summarized and responded to in Master Response 2.3.7.

Response to Comment H-22 through H-23

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

Response to Comment H-24

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

Response to Comment H-25 through H-26

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

Response to Comment H-27

The comment is noted.

Response to Comment H-28

The comment is noted.

Response to Comment H-29

The commenter's concerns are noted.

Response to Comment H-30

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

Response to Comment H-31

In response to comments related to the DEIR's analysis for economic impacts, including CEQA Guidelines compliance requirements and the adequacy of the EIR's approach for impact analysis, refer to Master Response 2.10.

Response to Comment H-32

In response to comments related to the DEIR's analysis for economic impacts, including CEQA Guidelines compliance requirements and the adequacy of the EIR's approach for impact analysis, refer to Master Response 2.10.

Response to Comment H-33 through H-34

This comment is responded to in Master Response 2.8.8.

Response to Comment H-35

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.10.

Response to Comment H-36

This comment is summarized and responded to in the following Master Responses: 2.2.3 and 2.10.

Response to Comment H-37

This comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.10.

Response to Comment H-38

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.9.3; and 2.10.

Letter I: Paul Robins, Resource Conservation District of Monterey County (June 22, 2020)

Letter I

From: Paul Robins
To: AgNOI, WB@Waterboards
Cc: (bplemmons@agloan.com); (rebeccajaneking@gmail.com); Benny Jefferson (bblaster@jeffersonfarming.com); Bill Lipe (william.o.lipe@gmail.com); emilysarahgardner111@gmail.com; greenfielddoud@gmail.com; jennifer@calgreens.org; jynel@rinconfarmsinc.com; Linda Ferrasci (lindastastypork@gmail.com); Melissa Duflock (mduflock@gmail.com); paul binsacca (quinadowines@gmail.com)
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 22, 2020 10:10:15 PM
Attachments: RCDMC AO4 comment letter to RWB_22jun2020.pdf

EXTERNAL:

Hello,
Please find attached our comment letter regarding the Draft Ag Order 4.0.

Sincerely,

Paul Robins
Executive Director
Resource Conservation District of Monterey County
744-A La Guardia Street
Salinas, CA 93905
Direct: 831-975-7757
Cell: 831-236-1740
Website | Facebook | Instagram

RESOURCE CONSERVATION DISTRICT OF MONTEREY COUNTY

744 La Guardia Street, Building A, Salinas, CA 93905 (831) 975-7775

June 22, 2020

Dr. Jean-Pierre Wolff, Chair of the Board
Central Coast Regional Water Quality Control Board 895 Aero Vista Place
San Luis Obispo, CA

Subject: Agricultural Order 4.0 comments regarding Riparian Setback Requirements & water/nutrient management

Dear Chairman Wolff and members of the Board:

I-1 I am writing to offer feedback regarding elements of the Draft Ag Order 4.0 for which I and my staff have relevant expertise and a shared interest in improved water quality. As you know, RCDs work with landowners and land managers on a voluntary basis, to help them identify and understand natural resource concerns on their land, and to provide technical and financial assistance to address those resource concerns. This includes assistance with regulatory compliance, so I write with an interest in seeing regulation that has the highest likelihood of success in terms of practical implementation given the tools we conservationists and the regulated farmers have to work with. Those farmers include the limited resource producers for whom we have dedicated programs and bilingual staff, and for whom regulation is not only disproportionately expensive but also challenging in a second language.

I-2 Regarding the proposed Irrigation and Nutrient Management for Groundwater Protection (Part 2, Sect. C.1) requirements, we have participated in numerous discussions with colleagues at Sustainable Conservation, the RCD of Santa Cruz County (RCDSCC), USDA NRCS, and UC Cooperative Extension (Farm Advisors Dr. Michael Cahn and Dr. Richard Smith). Rather than submitting duplicate comments, we express our concurrence with the commentary that each of them are submitting separately, with a few notes of emphasis. In regard to the proposed Table C.1-2. Time Schedule for Nitrogen Discharge Targets and Limits, we share the concerns regarding feasibility expressed by RCDSCC in their comment letter and which Dr. Cahn communicated in his presentation "A minus R: Implications and Challenges for Central Coast Farming" at the annual Irrigation & Nutrient Management meeting in February 2020. As an alternate approach, we ask you to consider allowing the formation of a technical panel and timeline (as part of the Ag Order) that allows the opportunity to better incorporate Central Coast agronomists' expertise to develop a time schedule, targets and limits that is consistent with regional agronomic technical guidance and expertise.

I-3 We also wish to emphasize the importance of incentivizing use of organic amendments and to acknowledge their role in trapping soil nitrogen. Dr. Smith speaks very directly and clearly in this regard, and the letters submitted by Dr. Lowell of the NRCS and by RCDSCC provide similar emphasis.

I-4 Page 15 of the Appendix B: Monitoring and Reporting Plan (MRP) states that "Dischargers 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." A quick look at the DWR CIMIS website shows a number of stations in the Salinas Valley as non-operational or not reporting ET, leaving most producers dependent on relatively-distant stations or Spatial CIMIS, which has undermined some producers' confidence in the associated method for estimating crop water

I-4 cont.

need for fine-tuning their irrigation applications. If the Regional Board intends to promote this as a means of compliance with Section C.1., these liabilities should be resolved by working with DWR and directing funding to stabilize the overall functionality of the system throughout the Central Coast. One of the major problems we have observed is lack of incentive for private landowners to host and maintain CIMIS stations, which require a dedication of land, regular irrigation, turf management, and station maintenance. This could be rectified through rental payments or other cost-offset measures. There should be an associated investment in education/outreach to restore confidence in the methodology as well.

I-5

Regarding the Surface Water Quality protection sections C.2-5 in Part 2 of the draft Order, RCDMC staff along with RCDSCC and other conservation partners provided technical input to the development of the "Ag Association Partners' Comprehensive Submittal, Including Redline Revisions to the General Order (Ag Partner Submittal)." We at RCDMC agree that a comprehensive, collaborative approach for surface water quality and waterways management would be more likely to incentivize participation and success towards achieving water quality objectives than the currently-drafted sections C.2-5 because it would be more efficient in terms of planning and does not isolate streambank/corridor protection from erosion control. It also provides a more explicit link between riparian revegetation and water quality improvement. This is apparently consistent with the sentiment in finding A.1.35 on page 12 of the Draft Order, "...Regionally-scaled third-party programs addressing multiple Order requirements are preferred to provide economies of scale to reduce Discharger costs, maximize effectiveness, and streamline Water Board oversight...". Together with Central California Grower-Shipper Association, the Nature Conservancy, the Central Coast Wetlands Group and the California Marine Sanctuary Foundation, we have dedicated ourselves to the development of collaborative water quality improvement opportunities in the Salinas Valley. The proposed approach in the Ag Partner Submittal is consistent with our collaborative modes of work, and we would be one of multiple technical partners suited to assist in its implementation.

I-6

The balance of this letter focuses on the proposed section regarding Riparian Area Management for Water Quality Protection (Part 2, Sect. C.5) as currently drafted by Regional Water Board staff for inclusion in Ag Order 4.0.

I-7

- We were encouraged to see that input provided in fall 2019 was incorporated into the draft Order released in 2020. That said, the riparian setback requirement requires more nuance and site-specificity than the Order provides as drafted. While we appreciate the inclusion of the Cooperative, RipRAM and Alternative options, the maintenance of the Riparian Setback requirements within each of them (per footnote 8 on page 42) constrains the flexibility we consider necessary for strategic, cooperative planning, and precludes the concept of conveyance that is critical to shared, cooperative water treatment projects (whether wetlands, basins or other form).

I-8

- There is an apparent conflict on Page 42, between items 7.b and 8.d, with the former allowing invasive weed control but the latter disallowing use of herbicide. Communication with Regional Board staff during the early June stakeholder meetings acknowledged the importance of herbicide for treatment of tough invasive riparian weeds (such as arundo). Please make this understanding explicit.

I-9

- On Page 43, Item 13 under the Compliance Pathway 1 states that "The CWRP must identify and implement projects that result in riparian establishment, re-establishment, and/or enhancement projects that benefit water quality objectives for sediment, toxicity, nutrients, and temperature, and are protective of all beneficial uses...(and that)... Projects that only serve to preserve and protect existing riparian areas do not meet the criteria for this requirement." That's an extremely tall order for locations where demonstrating that augmenting riparian vegetation would have a water quality benefit. Take my

I-9 cont.

apple orchard, for example. I am located on a Strahler Class 2 stream in a Priority watershed. The stream banks (~50') all the way up to my orchard are densely vegetated with ~99% native vegetation, but are steep, which would require an additional 40-50' of Riparian Buffer per Table C.5-2. Given that no irrigation or storm water sheet-flows off my land into the creek but rather drains to a ditch and then to the creek, there is no way I could justify the additional buffer in terms of meeting water quality objectives. Given that this same mode of transport of water from field to stream is the most common throughout our region on irrigated lands, that requirement is ill-placed. If it is intended to justify the riparian buffer requirement in the context of a water quality regulation, then it indicates a flaw in the regulation being proposed.

I-10

- On page 46, Item 33 under Exemptions includes an exemption for "A ranch that is bordered by a manmade barrier between the operation and a waterbody that prevents the establishment of a riparian and/or wetland setback on the farm that is not under the Discharger's legal control … (e.g., a flood control district levee, berm, etc.)." Almost all of the manmade barriers ('levees') along the Salinas River are privately maintained at the landowners' cost and provide a substantial public safety service and should be included under this exemption. To remove them would be both a massive undertaking and a massive liability to the landowners, thousands of acres of farmland, and the communities/residents in their vicinities.

I-11

- Allowance for this exemption would also anticipate the meandering of the Salinas River (and similar waterways) within its floodplains and provide certainty for farmers investing resources into buffer development/protection despite the 'moving target' of the river's edge towards or away from their farmed acreage over time or after a large storm event.

I-12

- The success Criteria Tables MRP-7 and MRP-8 on Page 50 of the MRP are extremely ambitious for the many farmers and their employees who will be tasked with (in essence) farming/cultivating native vegetation for the first time after many decades of clean-farming (no non-crop vegetation). This has long been an uphill battle for RCDs and other conservation professionals working with volunteer (aka early-adopter) farmers 1. who haven't worked with expensive, extremely slow-germinating and generally non-to-mildly-competitive native perennial grasses, and/or 2. whose own personnel, or county Public Works Department or Mosquito Abatement District "don't get the memo" and cultivate/spray out their new "native weed" patches/projects as part of standard practice or in the name of public safety. Now imagine that applied to hundreds of farmers regionwide who've never voluntarily engaged in this work doing it per regulation while desperately trying to keep costs down, especially for those with small acreages who may not have the economy of scale to anticipate the cost or for organic farmers who cannot use herbicides, many of whom already have intense weed pressure and weed seedbanks on their farm boundaries. This is not a recipe for success without intensive management and flexibility. These criteria would be more reasonable within the context of a collaborative approach that involves more strategic, focused riparian buffer projects as opposed to the across-the-board requirement posed in Section C.5.

I-13

- How does the Riparian Area Management section contemplate dealing with highly-erosive stream reaches or banks (due to high flows, along bends, at slope breaks, etc.) where vegetation is not adequate to stabilize the bank or channel? Is mandating expensive, engineered (if done properly) bank stabilization projects appropriate to this regulation if the requirement relates more to flood protection than irrigated land management?

I-14

- We anticipate that the increase in permit-application workload associated with many miles of riparian vegetation projects will be enormous. Every single RCD and conservation/restoration organization all

I-14 cont.

experience delays associated with single projects back-logging at both the Dept of Fish and Wildlife and the Regional Board. We implore you to work both internally and with your partner state agencies to develop the means to facilitate the work you will be mandating.

I-15

RCDs on the Central Coast have a substantial portion of our work dedicated to working with limited resource growers. As such we are very mindful of the disproportionate impact substantial regulatory change will have on their operations that lack the economies of scale needed to absorb the associated costs. This is acknowledged briefly in paragraph 1.A.29 on Page 11 of your draft Order, but needs to be much more directly addressed so that your staff can fairly and systematically treat the associated requests for assistance in a manner that would enable water quality regulation that is effective as well as equitable.

I-16

We recognize you have a Sisyphean task relative to the size of your agency, and there is truly no way to please everyone. As indicated throughout our comments, we conservation technical assistance providers expect effective regulation to provide pathways that allow us to work with farmers and collaborative groups to efficiently and substantially make lasting and meaningful natural resource improvements. These are actions that are clearly linked to and have high probability of addressing site-specific resource concerns. We see your task has having to facilitate such work on a regional scale, which means providing practical and scientifically-sound guidelines along with the flexibility needed to enable and incentivize locally-led planning and implementation.

I-17

Thank you for your consideration of our comments on this draft regulation. Please do not hesitate to contact me with any questions in this regard.

Sincerely,

Paul Robins
Executive Director

Response to Comment I-1

Thank you for your comment. The CCWB acknowledges the Resource Conservation District of Monterey County's (RCDMC's) background and interests. Please refer to Master Response 2.1.13.

Response to Comment I-2

The CCWB acknowledges the RCDMC's support for comments provided by Sustainable Conservation, the Resource Conservation District of Santa Cruz County (RCDSCC), U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), and University of California Cooperative Extension. Please refer to Master Response 2.2.3.

Response to Comment I-3

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

Response to Comment I-4

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

Response to Comment I-5

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

Response to Comment I-6 through I-14

This comment is responded to in Master Response 2.8.8.

Response to Comment I-15

The comment is noted.

Response to Comment I-16

Thank you for your comment.

Response to Comment I-17

Thank you for your comment.

Letter J: Lisa Lurie, Resource Conservation District of Santa Cruz County (June 22, 2020)

Letter J

From: Lisa Lurie
To: AgNOI, WB@Waterboards
Cc: Sacha Lozano; Erin McCarthy
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 1:10:03 PM
Attachments: image001.png
RCDSCC_comment_letter_draft_Ag_Order_4_final_.pdf

EXTERNAL:

Thank you for the opportunity to provide comments on the Draft Ag Order 4.0. Attached please find comments submitted on behalf of the Resource Conservation District of Santa Cruz County.

Please note that due to COVID 19 related shelter in place restrictions I am currently working from home on a reduced schedule. The best way to reach me during this time is email or cell phone.

Lisa Lurie
Executive Director
Resource Conservation District of Santa Cruz County
820 Bay Avenue, Suite 136
Capitola, CA 95010
Office: 831-464-2950 ext.27
Cell: 206-330-1407
llurie@rcdsantacruz.org

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June 22, 2020

Dr. Jean-Pierre Wolff, Chair of the Board
Central Coast Regional Water Quality Control Board
895 Aero Vista Place
San Luis Obispo, CA

Subject: Comments on Draft Agricultural Order 4.0

Chair Wolff:

J-1 The Resource Conservation District of Santa Cruz County (RCDSCC) appreciates the opportunity to provide comments on the draft Agricultural Order 4.0. RCDSCC shares with Region 3 Water Board an interest in restoring and protecting water resources on the Central Coast. The mission of the RCDSCC is to inspire and assist the people and communities of Santa Cruz County to protect, conserve, and restore our natural resources. Our staff have a depth of expertise related to agricultural water stewardship, agronomy, and watershed restoration. RCDSCC works with landowners and growers on a voluntary basis to help them identify the resource concerns on their land and provides technical and financial assistance to address those resource concerns. We assist with designs and recommendations that are appropriate to the particular site and that fit within the means and resource management goals of the landowner. Our approach is site-specific, science-based, and collaborative.

J-2 This letter describes both general and specific ways that RCDSCC can support agriculture and our collective progress in improving water quality during implementation of Ag Order 4.0. We also include specific comments and recommendations regarding certain components of draft Ag Order 4.0 and appreciate your consideration.

J-3 RCDSCC acknowledges that the current draft Ag Order 4.0 incorporates feedback received during early discussions with Region 3 staff. We support Region 3 staff and Board members in their effort to consider and successfully incorporate stakeholder feedback in this process.

J-4 RCDSCC is committed to coordinating with Region 3, agriculture, and partners in conservation to support the development of an Ag Order that is feasible for the regulated community and successful in restoring and protecting our water resources. To this end, we encourage Region 3 to consider third-party and cooperative proposals that leverage existing partnerships and expertise, that incorporate watershed-scale conservation planning, and that identify opportunities and implement projects that have maximum benefit to water quality. This is

1

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J-4 cont. consistent with the approach that RCDSCC takes to restore and protect natural resources in collaboration with managers of working lands.

J-5 Attached are RCDSCC's comments and recommendations for specific provisions as currently drafted in Ag Order 4.0. As always, RCDSCC staff welcome communication with Region 3 staff regarding our comments.

Sincerely,

Lisa Lurie
Executive Director
Resource Conservation District of Santa Cruz County

Cc: Jane Gray,
Michael Johnston,
Dr. Monica Hunter,
Jeffrey Young,
Bruce Delgado

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RCDSCC Comments on Draft Ag Order 4.0

Irrigation and Nutrient Management for Groundwater Protection, Groundwater Monitoring (Draft Order Section C.1 ; MRP Section D)

J-6

- RCDSCC recommends that a third-party groundwater trend monitoring program, if proposed, be accepted as an *alternative* to individual irrigation well monitoring, not *in addition* to individual irrigation well monitoring. While the purpose and importance of intensified groundwater monitoring is appreciated, RCDSCC finds the individual irrigation well monitoring (in phased-in areas) to be expensive and cumbersome for individual growers.

Irrigation and Nutrient Management for Groundwater Protection and INMP Summary Reporting (Draft Order Section C.1; MRP Section C)

Compliance calculation (A-R) and compliance pathways (Draft Order Section C.1; MRP Section C)**:**

J-7

- RCDSCC supports the goal of helping growers improve their nutrient management practices and minimize N discharge that can cause pollution. Offering technical assistance to growers on irrigation, nutrient and soil management is one of the core services RCDSCC provides in our area. Our office has in-house technical expertise, but we also rely on and actively collaborate with UCCE farm advisors, NRCS soil conservationists and engineers, and university researchers. Our observations below are based on our own experience and on input from local technical experts. They intend to offer constructive suggestions to accomplish the goals in this section of the order.

J-8

- The compliance calculation oversimplifies a complex and dynamic process by assuming that all of the excess nitrogen (A-R) becomes discharge or leaching. This assumption is inaccurate, and it disregards the specific soil conditions of a farm, particularly in terms of soil organic matter content and soil microbial activity. It also disregards soil and crop management practices that can reduce or limit excess nitrogen discharge. These important aspects need to be captured in order to make management improvements and compliance feasible.

J-9

- Discharge objectives (limits) in both compliance pathways (50lbs N/ac in pathway 1 and zero in pathway 2) are unrealistic and agronomically unfeasible, for various reasons: a) in order to grow a crop, N is needed to grow both the marketable and the non-marketable parts of the plant but only the marketable part is removed; therefore, b) the proposed limits demand not only an almost perfect balance between N inputs and

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J-9 cont.

crop N uptake, but also complete removal of crop biomass (marketable and non-marketable) from the fields, so that no crop residue is counted as "discharge". This seems highly unfeasible, costly and probably not desirable, as the crop residue also plays an important role in a farming system. Crop residue does not have to become an environmental hazard and it can (and should) be dealt with using adequate management and conservation practices that benefit both the farming system and the environment (further suggestions provided in the next section below).

J-10

- Table C. 1-2. Time Schedule for N discharge targets and limits: Numeric limits beyond 2026 (i.e. N residual below 300lbs N/ac) are agronomically impossible for many vegetable crops with the systems and technologies currently available (for the reasons described above).

J-11

- Compliance pathway 2 (A-FER + C x A-COMP = R) is agronomically unfeasible for most crops because it assumes that 100% of the N applied is removed from the field at the end of the crop.

J-12

- A modelling tool may be better suited to accommodate complexities and site-specific variations in calculating the N balance (applied vs. removed), the potential fate of excess nitrogen and crop residues, and the resulting discharge rate.

Nitrogen Removed (and the use of compost, cover crops and carbon rich soil amendments)
(Draft Order Section C.1 and MRP Section C)

J-13

- The "R" side of the equation in the compliance calculation (A-R = N Discharge) is incomplete without acknowledging and accounting for alternative plausible pathways that excess nitrogen and crop residue can take depending on soil conditions and management practices. "R" should not be limited to "removal from the field". Assuming that all the nitrogen left in the field becomes "discharge" is an incorrect generalization, as the N fate depends on many factors, and can be controlled with adequate management.

J-14

- We recommend that the revised Order includes and incentivizes practices that can immobilize ("sequester") and recycle nitrogen (i.e. prevent "discharge"), by factoring them in the calculation of nitrogen discharge. Such practices include but are not limited to cover cropping, applying compost and other high C:N ratio soil amendments to build and maintain a high soil organic matter content, reducing tillage and managing crop residue.

J-15

- Cover crops should be a priority and heavily incentivized in order to reduce N leaching. Soils in our region are not cold enough to stop mineralization during winter. Cover crops are crucial to recover most of the N residual. Including cover crops in with the "R" factor would incentivize their use and could be a powerful tool for reducing nitrate leaching during the winter fallow period.

4

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J-16
- As currently written the compliance calculation tends to penalize the use of compost, by including it on the "A" side of the equation. Organic growers have no choice, because applying compost is part of their required practices, but conventional growers who could choose to apply compost (and gain its associated agronomic and environmental benefits), may avoid it in order to keep "A" as low as possible, and make compliance more viable. This would be a missed opportunity to incentivize and expand a valuable practice that can contribute to water quality protection.

J-17
- The compost discount factor "C" does not sufficiently incentivize the use of compost. While it appropriately counts only a fraction of the compost N, it does not account for situations in which compost mineralizes little to no N, or even immobilizes N.

J-18
- Much of the compost used in the Central Coast is quite low in N, often ranging from 1.2 to 2.0% N. As a result, it may mineralize little (e.g. 1.0 lb N/A) to no nitrogen in the first year after application (R. Smith, UCCE, personal com.; Hartz et al, 2000).

J-19
- There is evidence that the high carbon (C:N>12) composts should not be included on the "A" side of the equation; they may in fact help to sequester N in the soil and improve microbial cycling of nitrate-N (White et al, 2020; Bowles et al, 2015). The Ag Order should accommodate new developments in this field as they become available.

J-20
- On the A side of the equation, a distinction should be made between synthetic and organic N fertilizers, as they have very different net N mineralization rates. A recent study on mineralization of N from organic fertilizers (Smith et al, 2020)[1] showed that about half of the initial N is mineralized in 8 weeks, while the remainder is recalcitrant, and releases slowly over a period of years similar to compost. It is important to take the N release dynamic into consideration for organic production in order to not penalize them in the A-R calculation.

Impermeable Surfaces and Steep Slopes (Draft Order Section C.4; MRP Section C.4)

J-21
- Section C.4 of the Findings describes the costs of developing a sediment and erosion plan (SEMP) but does not adequately capture the costs of implementing and maintaining the practices included in the plans. In particular, engineered solutions can be costly and labor intensive and should be considered on a case by case basis.

J-22
- Growers and landowners are often constrained by permitting or other barriers to implementation of best management practices and/or engineered projects. Please accommodate a way for growers/landowners to receive additional time due to constraints that are beyond their control.

J-23
- In situations where non-engineered solutions are adequate, RCD staff may have sufficient expertise to develop the necessary plans. Where engineered solutions are appropriate, we work with licensed, qualified professionals from the Natural

[1] https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=26970

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J-23 cont. Resources Conservation Service (NRCS) and other consultant engineers to assist growers.

Riparian Setback Requirements (Draft Order Section C.5)

J-24 The riparian setback requirements described in the current draft accommodate more flexibility and feasibility compared to earlier drafts. RCDSCC and our partners had expressed concern about taking a "one size fits all" approach to riparian restoration and water quality improvement and we recognize and appreciate that the broader inclusion reflected in the current draft was done partly in response to feedback we've provided.

J-25 Riparian vegetation establishment, protection and restoration is important for many reasons which RCDSCC supports. However, efforts to restore and maintain riparian habitat should be goal-oriented and should be undertaken by experts to ensure success. These projects can be difficult, costly, and require long-term maintenance. The outcomes of a ranch-by-ranch approach to riparian habitat restoration are therefore uncertain.

J-26 Further, there are certain areas/watersheds in which collective treatment systems are necessary in order to effectively reduce the level of pollutants in local waterbodies. A collaborative, watershed-based approach is needed to identify these opportunities and to collectively implement the necessary treatment projects.

J-27 While the current draft provides *Cooperative* and *Alternative* compliance pathways, both of them are still subject to riparian set back requirements for ranches in riparian priority areas, which cover almost 100% of the areas we serve (Pajaro Valley). Both of these pathways have additional requirements, expectations and costs, on top of the required setbacks, which makes them largely unfeasible. And, there is no incentive for dischargers who are not adjacent to a waterbody or who already meet the riparian set back limits, to join a cooperative effort to collectively address water quality issues in their watershed. For all these reasons, the cooperative approach is not adequately incentivized and it doesn't seem to have a good chance of gaining traction under the current draft's conditions.

J-28 The alternative proposal being presented by local ag industry stakeholders – "Ag Association Partners' Comprehensive Submittal, Including Redline Revisions to the General Order (Ag Partner Submittal)" – offers a constructive and coherent approach, which in our opinion provides a more favorable framework to develop collaborative watershed-based planning and strategic implementation of water quality treatment projects with maximum benefits.

J-29 The Ag Partner Submittal suggests an integration of riparian management and surface water quality protection within one set of requirements to be accomplished in a cooperative manner in lieu of separate mandatory riparian management compliance pathways under Part 2 Section C.5 in the current draft. It outlines a process and a set of alternative requirements that allow for – **and incentivize** – voluntary development and implementation of Cooperative Watershed Restoration Plans (CWRPs) to address both riparian and water quality protection goals. This

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J-29 cont.

proposal is in line with RCDSCC's approach. It incentivizes broad voluntary participation, leverages existing partnerships and local expertise, and allows partners and stakeholders to collaboratively identify priorities and project opportunities on a watershed-scale. RCDSCC would be an active partner in such a model and would support its adoption by Region 3.

7

Response to Comment J-1

Thank you for your comment. The CCWB acknowledges the Regional Conservation District of Santa Cruz's (RCDSCC's) background and interests.

Response to Comment J-2

This comment is noted.

Response to Comment J-3

Thank you for your comment.

Response to Comment J-4

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

Response to Comment J-5

Thank you for your comment.

Response to Comment J-6

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

Response to Comment J-7

Thank you for your comment.

Response to Comment J-8

This comment is summarized and responded to in the following Master Responses: 2.1.8 and 2.3.7.

Response to Comment J-9

The comment is noted.

Response to Comment J-10

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

Response to Comment J-11

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

Response to Comment J-12

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

Response to Comment J-13

The comment is noted.

Response to Comment J-14 through J-16

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

Response to Comment J-17 through J-19

This comment is summarized and responded to in Master Response 2.3.6.

Response to Comment J-20

The comment is noted.

Response to Comment J-21 through J-23

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

Response to Comment J-24 through J-29

This comment is responded to in Master Response 2.8.8.

Letter K: Vanessa De La Piedra, Santa Clara Valley Water District (June 22, 2020)

Letter K

From: Vanessa De La Piedra
To: AgNOI, WB@Waterboards
Cc: Aaron Baker; George Cook; Jeannine Larabee; Kirsten Struve
Subject: Comments on Draft Ag Order
Date: Monday, June 22, 2020 6:03:57 PM
Attachments: image003.png
Valley Water Draft Ag Order 4.0 Comments 6-22-20.pdf

EXTERNAL:

Hello,

Please find comments from Valley Water attached.

Thanks,
Vanessa

VANESSA DE LA PIEDRA, P.E.
GROUNDWATER MANAGEMENT UNIT MANAGER
Water Supply Division
Tel. (408) 630-2788

Santa Clara Valley Water District is now known as:

Valley Water

Clean Water • Healthy Environment • Flood Protection

5750 Almaden Expressway, San Jose CA 95118
www.valleywater.org

Valley Water

Clean Water • Healthy Environment • Flood Protection

June 22, 2020

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

Subject: Comments on the Draft Ag Order

Dear Dr. Wolff:

K-1 Thank you for the opportunity to provide comments on the Draft Agricultural Order 4.0 (Order). The Santa Clara Valley Water District (Valley Water) serves over 1.9 million residents of Santa Clara County. The mission of Valley Water is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy. As a key component of this mission, Valley Water has sustainably managed the county's groundwater for many decades through activities to protect and augment water supplies.

Valley Water is the Groundwater Sustainability Agency for the Santa Clara and Llagas Subbasins in Santa Clara County (Basins 2-9.02 and 3-3.01, respectively) under the Sustainable Groundwater Management Act. In the Llagas Subbasin, groundwater is the sole drinking water source and supplies nearly all beneficial uses. Valley Water works to protect local groundwater basins from contamination and to preserve or improve groundwater quality for beneficial uses.

K-2 Valley Water supports the Order's increased focus on protection of groundwater (and surface water supplies) through quantifiable objectives (e.g., numeric limits) that must be verified through water quality monitoring within a defined time schedule. Valley Water also supports the Order's use of an approach that provides agricultural users with considerable flexibility regarding implementation of best management practices that are most appropriate for their operations and local water quality issues.

K-3 The Order offers two compliance pathways for nitrogen discharge that are based on the concept of nitrogen applied relative to nitrogen removed through crop harvest, sequestration, treatment using a bioreactor, or other removal methods. Valley Water supports the use of numerical targets/limits for nitrogen discharge as an important method to improve groundwater quality. Compliance Method 1 is straightforward, specifying nitrogen discharge targets (years 2022-2026) and nitrogen discharge limits (years 2026-2050) for growers. Compliance Method 2 provides an incentive for growers to use irrigation water as a source of nitrogen through the requirement that nitrogen in fertilizer and compost must balance nitrogen removed. However, this approach does not consider the nitrogen already present in irrigation water. Valley Water supports the Compliance Method 2 concept and flexibility in compliance but suggests that the Central Coast Water Board consider accounting for the nitrogen present in irrigation water as a means to further reduce nitrate loading to groundwater.

K-4 Valley Water supports the Central Coast Water Board's efforts to protect water quality, beneficial uses, and aquatic habitat through the reduction of nutrient, sediment, and pesticide discharges that are part of the revisions to the Order. Valley Water also recognizes the value of agriculture in Santa Clara

Santa Clara Valley Water District | 5750 Almaden Expressway, San Jose, CA 95118-3686 | (408) 265-2600 | www.valleywater.org

K-4 cont. County and supports implementation of the Order in a manner that provides reasonable compliance flexibility the agricultural community while protecting water quality.

Sincerely,

Vanessa De La Piedra, P.E.
Groundwater Management Unit Manager

cc: A. Baker, G. Cook, J. Larabee, K. Struve

Response to Comment K-1

Thank you for your comment. The CCWB acknowledges the Santa Clara Valley Water District's (Valley Water's) background and agency roles.

Response to Comment K-2

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

Response to Comment K-3

This comment is summarized and responded to in the following Master Responses: 2.1.8 and 2.3.9.

Response to Comment K-4

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

3.2.4 Additional Stakeholder Groups

Letter L: Judy Paulson (March 20, 2020)

Letter L

From: Judy Paulson
To: AgNOI, WB@Waterboards
Subject: Comments on Ag Order
Date: Friday, March 20, 2020 6:26:54 PM

EXTERNAL:

To Whom it may Concern:

L-1

I believe the biggest issue to enforcement.
We have 40 acres, are in full compliance, have management practices to the extreme on our acreage. BUT those around use do not. Most are not in compliance with Ag Order and/or have no management practices even if they have an Ag Waiver.

- The 20 acres just East of us has 20 acres of plastic for strawberries and absolutely NO management practice to hold his water causing extreme erosion on our road!!!
- The 20 acres just West of us has an Ag Waiver BUT his erosion onto our property continuously causes damage. He has a catch basin that has not been cleaned up for several years, so it is silted in and eroding onto our property.
- The 20 acres at our entrance has no Ag Waiver, no management practices, is a toxic dump with erosion constantly
- The 20 acres to his West has no Ag Waiver, no management practices, and causing run off constantly

L-2

So, this new Ag Order:

- You will get pushback from the big guys
- Compliance will continue to be a challenge
- Enforcement is your weakness

Response to Comment L-1

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

Response to Comment L-2

The comment is noted.

Letter M: Ann R. Myhre (April 12, 2020)

Letter M



Irrigated Sudan grass 1948, Shandon, CA

FROM: Ann R. Myhre, PO Box 459, San Ardo, CA 93450

DATE: April 12, 2020

RE: CENTRAL COAST RWQCB AG ORDER 4.0

Sediment and erosion management

Members of the Board:

Last year I addressed this Board regarding the sediment and erosion management aspect of draft Ag Order 4.0.

M-1 Herein I will continue to discuss my concerns. Most specifically I wish to talk about infrequent rainfall events that carry sediment from a watershed of several hundred acres onto and across the southern end of my Field 1. I believe it is unreasonable for me to take responsibility for reporting sediment that might occasionally enter the San Juan Creek stream channel (Shandon, CA) after passing across my farm ground. As I've explained before at a 2019 public hearing and in written testimony this will happen whether I farm, or I do not farm.

M-2 Perhaps you will better understand how inconsistent it is for the Central Coast Regional Water Control Board to think I should report sediment flow if I illustrate what happens at the northern end of Field 1 where sediment enters San Juan Creek far more frequently. At this location small rainfall events can result in sediment flow, but Ag Order 4 does not require that I report sediment that enters the San Juan channel at the northern end of Field 1.

M-3 Remember, at the south end of the field sediment flow only happens when the soil is highly saturated. It might be once in a decade, or several times on a wet year that water bearing sediment is slowed as it crosses hundreds of acres of native pasture and my cropland. Soil conservationists consider this this slowing and spreading a good thing.

To put this in perspective, let's look at what happens at the north end of the field where the watershed is again a few hundred acres. Here sediment flows more frequently but it does not cross my cropland. Instead water and sediment flow directly into San Juan Creek so there are **no reporting requirements**.

Below are two illustrations. The first is a view of the watershed about a half a mile above the northern end of Field 1 and the creek. The second shows the gulch that divides Field 1 from Field 2 and carries water and sediment straight into the creek bed.

M-3 cont.



Watershed about one half mile above Field 1 and San Juan Creek, Shandon, CA, Dec. 26, 2015



Looking east toward watershed. Gulch divides Field 2 on left from Field 1 on right. March 20, 2020

M-4 **In order to refresh your memories, attached below are my written remarks from January 2019.**

FROM: Ann R. Myhre, PO Box 459, San Ardo, CA 93450

DATE: January 17, 2019

RE: CENTRAL COAST RWQCB AG ORDER 4.0

M-5 In present draft form, Ag Order 4.0 has so many variables that is difficult to address all my potential concerns, so I have chosen to address one, **sediment and erosion management**. Along the eastern watershed of the Salinas River and its tributaries, Estrella, Cholame, and San Juan, erosion occurs naturally in the foothills. This phenom concerns me because during storm events one of my properties is particularly impacted by uncontrollable sediment flow from adjacent property.

M-6 PROPERTY LOCATION AND CHARACERISTICS:

San Juan Creek (a tributary to Cholame Creek) in San Luis Obispo County runs through our property. Native trees and other vegetation along the river provide a natural buffer between fields and stream. Irrigation water does not drain into the river channel, but sediment carrying rainwater sometimes enters the waterbody short-term dependent upon rainfall amounts.

I believe it is unreasonable to require us to monitor surface water on this property during storms because we have no ability to control the sediment flow which has occurred naturally for eons; and furthermore, entering the waterway to take a sample can be life-threatening (quicksand, current, turbidity).

M-7 Since 1997 I have been photo documenting how sediment carried by rainwater passes from the eastern foothills, across the county road, and then across approximately one thousand yards of nearly level cropland before it drops into the river channel. In recent years this sediment has formed a buffer zone in the steam bed. Someday when the stream again flows bank-to-bank, the accumulated sediment will be carried away in storm flow. When/if waterflow removes the accumulated sediment, it is likely the stream channel will return to the eastern bank of the river channel thus temporarily reducing our current buffer zone so that when sediment again flows across the cropland it will enter directly into the stream. This cycle of building up the buffer with sediment and clearing it with heavy storm events has been repeated several times during my life. It cannot be prevented.

M-8 It seems unreasonable that we might be required to monitor a naturally occurring condition which we have no ability to control. I know the Regional Water Quality Control Board must regulate a vast area, but one size simply does not accommodate the unique characteristics of individual properties

M-9 To further clarify the periodic and problematic conditions along the southern boundary of our property I have included photos below.

M-9
cont.



Jan. 3, 2007. Newer fence along San Juan Road contrasts with 1955 post partially buried in silt.



Jan. 3, 2011. Despite thick vegetation on open grazing lands, silt has washed across the county road.

M-9
cont.



Jan. 3, 2011. Silt has flowed across road, through 1000 yards of dry farmed grain to San Juan Creek.



Jan. 3, 2011. Riparian buffer with light waterflow from cropland entering river flow from upstream.

Response to Comment M-1

The comment is noted.

Response to Comment M-2

The comment is noted.

Response to Comment M-3

The comment is noted.

Response to Comment M-4

The comment is noted.

Response to Comment M-5

The comment is noted.

Response to Comment M-6

The comment is noted.

Response to Comment M-7

The comment is noted.

Response to Comment M-8

The comment is noted.

Response to Comment M-9

The comment is noted.

Letter N: Brian Talley, Talley Farms and Talley Vineyards (April 13, 2020)

Letter N

From: Brian Talley <brian@talleyvineyards.com>
Sent: Monday, April 13, 2020 4:30 PM
To: AgNOI, WB@Waterboards
Cc: Ryan Talley; Chris Darway
Subject: Comments Ag Order 4.0
Attachments: CCRWQCB Ag Order 4.0.pdf

EXTERNAL:

Please find my comment letter attached.

Sincerely,

Brian Talley
www.TalleyVineyards.com
Delicious Expressions of Cool California Vineyards
www.TalleyFarms.com
Excellence in Everything
805 235-9508

1

April 13, 2020

TALLEY
VINEYARDS

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

Dear Mr. Keeling:

N-1 I am writing to express my concern regarding the pending Central Coast Regional Water Quality Control Board Ag Order 4.0. As the operator of a diversified farming operation including vegetables, citrus, avocados and winegrapes, I am concerned about the impact that these new regulations will have on my family's business. While I have a number of concerns, I will address those which I think will have the most significant impact.

N-2 First, we lack the professional expertise to comply with these new regulations. Therefore, it will be necessary to add resources, either an employee or likely an independent contractor to compile and submit the required documentation. As a wholesale producer of various commodities, I have no way to pass these costs on to my customers.

N-3 Second, it appears that the proposed nitrogen limits would preclude multiple cropping in our vegetable operations. This is a critical element of our financial viability as this is the only way we can generate the revenue needed to sustain our operations. Multiple cropping is also key to our crop rotation, which improves our soils and enhances our productivity by reducing soil born pathogens.

N-4 Finally, and most notably, I'm extremely concerned about the proposed riparian setbacks. We farm adjacent the Arroyo Grande Creek for about three miles. The proposed setbacks will result in the loss of significant productive acreage, will increase the cost of management of these areas, and likely result in new vertebrate pest pressure and food safety compliance issues.

N-5 I am proud of my heritage as a third generation family farmer who lives on my farm. I, like most growers I know, am extremely concerned about the health of our environment and the quality of our water supply. I am also concerned about the financial viability of my business. I urge you to pause the implementation of the new Ag Order until you can receive more input from growers and work on a more collaborative solution that better serves all stakeholders.

Sincerely,

Brian Talley
President and CEO, Talley Farms and Talley Vineyards

3031 Lopez Drive, Arroyo Grande, CA 93420 phone (805) 489-0446 fax (805) 489-0996 www.talleyvineyards.com

Response to Comment N-1

Thank you for your comment.

Response to Comment N-2

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

Response to Comment N-3

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

Response to Comment N-4

This comment is responded to in Master Response 2.8.8.

Response to Comment N-5

Thank you for your comment.

Letter O: David Schwartz, Deja View Farm (May 1, 2020)

Letter O

From: David Schwartz
To: AgNOI, WB@Waterboards
Subject: Draft Agricultural Order 4.0
Date: Friday, May 1, 2020 8:59:53 AM

EXTERNAL:

To Whom it May Concern:

O-1 I am a certified organic micro-farm operator in the Santa Cruz County area. I have a strong objection to this regulatory order. I have read that in the last several years, there have been no improvements to water quality even after all the work imposed on farmers. It is especially onerous to issue an 18 page order and expect small farms such as mine to adhere to these orders. You should spend your efforts of farms that do not follow minimal water usage protocols and already have scrutiny from certifying agencies. Your tier levels are insufficient to make the order valid. If you start with minimum acreage of 100, you might have a better chance to make a difference.

Thank you,
David Schwartz
Deja View Farm

Response to Comment O-1

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

Letter P: Joji Muramoto, University of California Cooperative Extension, Center for Agroecology and Sustainable Food Systems, U.C. Santa Cruz (June 1, 2020)

Letter P

From: Joji Muramoto
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Monday, June 1, 2020 6:21:47 PM
Attachments: 20Comments to Draft Ag Order 4_Muramoto_final.pdf

EXTERNAL:

Dear the Central Coast Water Board,

Attached please find my comments on the draft AgOrder 4.0.

Thank you very much for your consideration.
Please let me know if you need any further information.

Regards,
Joji Muramoto

Joji Muramoto. Ph.D.
Assistant Cooperative Extension Organic Production Specialist
University of California Agriculture and Natural Resources
Center for Agroecology and Sustainable Food Systems
Department of Environmental Studies
University of California, Santa Cruz
1156 High Street, Santa Cruz, CA 95064

Comments to Draft Ag Order 4.0

Joji Muramoto, Assistant CE Organic Production Specialist, University of California Cooperative Extension, Center for Agroecology and Sustainable Food Systems, UC Santa Cruz

DRAFT GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS

Attachment A. C.1. Irrigation and Nutrient Management for Groundwater Protection:

Nitrate – Sources and Primary Drivers

Paragraph 12:

P-1

1. The paragraph lists five major drivers but misses another important driver: winter precipitations. Under the Mediterranean climate, precipitations are concentrated in winter months roughly from October to April in the central coast of California. Any nitrate in soil existing during rainy winters, either residual nitrate from the previous crop or nitrate derived from the crop residues incorporated in the fall, is vulnerable to losses by rain events through mainly leaching or surface runoff. This is a typical issue in vegetable production areas in the EU (De Neve and Hoffman, 1998), Canada (Congreeves et al., 2013), and California (lettuce: Jackson et al., 1994, broccoli: Smith et al., 2016). On the central coast of California, nitrate losses in winter are also documented in strawberry systems (Muramoto et al., 2007). Special attention should be paid to this critical driver to effectively reduce nitrate leaching or surface runoff from agroecosystems in the central coast in California.

P-2

2. The effect of this driver becomes further problematic, especially when nitrogen-rich crop residues such as broccoli, cauliflower, and artichokes are incorporated in falls (Agneessens et al., 2014). With a typical 100 to 250 lb-N/acre of biomass-N with a C/N ratio of 10 or less, incorporated residues can produce a significant amount of nitrate during mild winters of the area (Smith et al., 2016). Further, this issue of nitrogen-rich crop residues is not addressed by the A-R formula because residues are not taken into account in either A or R. Thus, additional measures are necessary to address this driver.

P-3

3. R_{other} value (DRAFT GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS. Part 2, Section C1, Irrigation and Nutrient Management for Groundwater Protection, paragraphs 7-10) can indirectly address this issue through practices such as winter cover cropping or N-immobilization using high C:N amendments. A substantial body of research shows the effect of cover cropping in reducing nitrate leaching during rainy winters in our region (Jackson et al., 1994, Wyland et al., 1996, Jackson, 2000) and elsewhere (for example, Feaga et al., 2010). Further, cover cropping is known to provide multiple ecosystem services such as increasing labile soil organic matter (White et al., 2020), reducing soil erosion (De Beats et al., 2011), and suppressing weeds (Brennan and Smith, 2018). To encourage this practice, growers who implement this practice should be rewarded with a credit or some other ways. The use of a high CN amendment to immobilize soil nitrate in winter has been studied in the EU (Chaves et al., 2007, Redmile-Gordon et al., 2014), Canada (Congreves et al., 2014), and California (Smith et al., 2019). A 3-year study in central coastal California showed that

1

P-3 cont.

the approach is promising. The on-going CDFA-FREP-funded project is trying to reduce the cost of the practice without sacrificing its effectiveness. Again, growers who implement this practice should be rewarded in some ways, should the method be proven to be practical and effective. As a result, these practices provide R_{other} that can help mitigate nitrate loss in the winter. All of these types of critical practices should be incentivized by the Ag Order in order to stimulate adoption.

P-4

4. Another useful measure to address this driver is a soil nitrate test in the fall. The attachment B "Monitoring and Reporting Program (MRP)" paragraph 12 mandates soil nitrate test in general, but a fall soil nitrate test should be explicitly encouraged. This approach is essential to evaluate the potential nitrate loss during rainy winters. Further, it can be integrated with the requirement of planting a cover crop or using a high CN amendment when the soil nitrate level in certain depth (e.g., 0"-12" depth) is higher than a threshold. This approach may be useful for fall-planting crops such as strawberries; Growers can use this information to adjust the amount of pre-plant N fertilizers and reduce nitrate loss during the winter. In a 5-year strawberry/vegetable rotation study in Moss Landing, Muramoto et al. (2007) found that the main drivers of the nitrogen loss during winters were the amount of residual soil nitrate and pre-plant N fertilizers. To limit the nitrogen loss to 100 kg-N/ha, the regression model indicated that the sum of residual soil nitrate and pre-plant N from compost and pelleted organic fertilizer should be less than 230 kg-N/ha. Further studies examining the relationship of residual soil nitrate level, the amount of pre-plant fertilizers, and nitrate loss during winter across different soil types are necessary to develop regionally adaptable thresholds of soil nitrate level in falls.

P-5

Compost Discount Factor
Paragraph 40:

1. The compost discount factor is essential not only for compost but also for other organic fertilizers. The current proposal's approach using total N as the N application rate (A) overestimates the actual N availability from the organic fertilizers. A range of solid and liquid organic fertilizers are available in the market and widely used among organic growers. Studies show that the mineralization rates of organic fertilizers are variable (Hartz and Johnstone, 2006; Hartz et al., 2010) but mostly predictable either from C:N ratio or N content of the material (Lazicki et al., 2020). Thus, a discount factor for each organic fertilizer estimated from the C:N ratio or N content, or an incubation study, should be included to avoid disproportionally penalizing organic growers in the A-R calculations.

2

Literature Cited:

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Congreves, K.A., Voroney, R.P., O'Halloran, I.P., Van Eerd, L.L., 2013. Broccoli residue-derived nitrogen immobilization following amendments of organic carbon: An incubation study. Canadian Journal of Soil Science 93, 23-31.

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OPTIMIZING NITROGEN MANAGEMENT IN AN ORGANIC STRAWBERRY PRODUCTION SYSTEM ON COASTAL CENTRAL CALIFORNIA

Joji Muramoto[1], Stephen R. Gliessman[1], Carol Shennan[1] Dan Schmida[2], Robert Stephens[3], and Sean Swezey[1]

[1]UC Santa Cruz, [2]Sandpiper Farms, [3]Elkhorn Ranch

ABSTRACT

Continued growth of organic strawberry production in coastal central California faces a challenge of fertility management to optimize nutrient input use while ensuring protection of surrounding vulnerable habitats. Optimizing nitrogen (N) management in organic strawberries is difficult due to the high N sensitivity and long growth period of strawberries, and the need for pre-plant fertilization immediately prior to the winter-rainy season. In a replicated on-farm trial N dynamics in an organic strawberry production system was monitored for five years. Using yield and nitrogen data from this study we developed an approach that can be used by growers to optimize N management practices for both good yields and environmental protection. A four-step approach was employed; 1) identify plots from each year that were good similar yield, 2) collate data on N inputs, soil residual inorganic N (Nres) prior to strawberry planting, total plant N uptake, and soil inorganic N dynamics to calculate N loss during the winter (Nloss) from plant N uptake and soil inorganic N, 3) use polynomial regression analysis to find the best fitted model for predicting Nloss, and 4) use the model to calculate appropriate N application rates to limit Nloss to a given target level. The regression analysis identified a model that gave an excellent fit to the data, and showed that the sum of Nres and pre-plant N inputs from compost and pelleted organic fertilizer have to be less than 230 kg-N ha^{-1} to limit Nloss to around 100 kg-N ha^{-1}.

INTRODUCTION

Organic strawberry production has been growing rapidly in California, where more than 80% of strawberries in the country are produced (Economic Research Service -United States Department of Agriculture, 2006). During 1998 and 2003, both the acreage and the sales value of organic strawberries increased more than five fold; such that in 2003 1,289 acres of organic strawberries were grown (representing 4.4% of total strawberry acreages in the state), and generated 17.5 million dollars of farm gate sales (Klonsky and Richter, 2005).

Strawberry is a nitrogen (N)-sensitive crop. The yield and quality of strawberry fruits is strongly affected by plant N status (May and Pritts, 1990). California strawberry growers normally apply 168-337 kg ha^{-1} of N annually depending on cultivar and soil type (University of California Integrated Pest Management Program, 1994). With its mild climate, majority of strawberry production takes place along the south to the central coast of California, where agricultural fields have been identified as non-point sources of fresh and brackish water pollution (Los Huertos *et al.*, 2001). Realizing synchrony between N supply and crop N demand without excess or deficiency is the key to optimize the balance among crop yield, profit, and the environmental protection (Cassman *et al.*, 2002; Robertson, 1997; Woomer and Swift, 1994).

In organic systems, however, synchronizing N supply with N demand of strawberries is a challenge due to the sensitivity of N mineralization rates from organic fertilizers and soil organic matter to specific environmental conditions. Further, under the winter-planting annual system, a typical system among the south to the central coastal growers, pre-plant fertilization and strawberry transplanting is immediately followed by the rainy season when N leaching potential is high. To meet the strawberry's N demand, growers use commercial organic fertilizers that are relatively soluble as a pre-plant N source, as well as for fertigation later in the season. This practice has received criticism as "high-input organic agriculture", which may not convey environmental benefits commonly associated with organic farming (Appropriate Technology Transfer for Rural Areas (ATTRA), 2003).

Impacts of current N-management practices in organic strawberries on the environment are not well-studied in California. From the first two years of our five-year organic strawberry rotation on-farm trial, we demonstrated that N loss during the rainy season can be reduced by decreasing pre-plant N application rate without sacrificing fruit yield (Muramoto et al., 2004). In the present paper, we demonstrate a method, using five-years of data from the trial, to optimize N management practices to meet both production and environmental protection goals in the organic strawberry production system.

MATERIALS AND METHODS

1. Study site and experimental design

The research took place on the Elkhorn Ranch, located on the edge of the Elkhorn Slough National Estuarine Research Reserve, Monterey County, California where non-point pollution from agricultural practices has been documented as a major problem (ABA Consultants *et al.*, 1989; Phillips, 1988; United States Soil Conservation Service, 1984). To demonstrate effects of diverse vegetable/strawberry rotations and multiple ecological practices on soil and agroecosystem health, an on-farm organic five-year rotation experiment was conducted from 2001 to 2006 (Muramoto *et al.*, 2006). The experimental design was a split plot arrangement of treatments in a randomized complete block with years between strawberries (5 treatments: 0 (continuous strawberries with pre-plant broccoli shoot residues application every year), 1, 2, 3, and 7 years between strawberries) as the main plots and strawberry cultivar (2 treatments: Aromas, and Seascape or Diamante) as the sub-plots; with four replications. Each plot was four 1m rows x 18.6 m long. The soil type is Santa Ynez fine sandy loam (Fine, montmorillonitic thermic, Ultic Palexerolls).

2. Cultural practices and fruit yield survey

Unless otherwise specified, common cultural practices for organic strawberry production on the central coast of California (Bolda *et al.*, 2006) were used. Application rates of compost and organic fertilizers were adjusted for each year based on discussion between the grower and the project coordinator reflecting data from the previous year. In early October of each year, broccoli residues (N: 1.6– 3.9 % d.w., C: 33.2 – 37.0% d.w., C/N: 8.8 – 21.2) were applied and rototilled into 0-15cm deep soil to suppress *Verticillium dahliae* populations in soil (Koike and Subbarao, 2000). The application rates of broccoli residues ranged from 27.0 (year 1) to 65.7 tons ha^{-1} (year 3). Following broccoli incorporation, the field was subsoiled twice and leveled. A grape pomace/chicken manure-based compost (N: 1.2% d.w., C: 16.0% d.w., C/N: 13) was then broadcasted to the field. The application rate of compost was 11.2, 10.3, 34.7, 5.6, and 10.1 tons ha^{-1} for year 1, 2, 3, 4, and 5, respectively. After disking twice, a pelletized solid organic fertilizer made from feather meal, blood meal, or meat and bone meal was band applied in beds

as beds were listed at the rate of 1167, 529, 706, 561, and 561 kg ha^{-1} for year 1, 2, 3, 4, and 5, respectively. Total N content in broccoli residues, composts and pelleted organic fertilizers used in the experiment were analyzed by dry combustion method with a Vario Max CNS analyzer (Elementar America, Inc. Mt. Laurel, NJ).

Strawberry transplants were planted in the middle to late November each year with plant population of 47,340 – 52,340 ha^{-1}. A black plastic-mulch was applied in January 2002 in year 1, whereas it was applied pre-planting from the second to the fifth year to decrease the rate of nitrate losses through leaching during the rainy season (Muramoto et al., 2004). Supplemental liquid organic fertilizers were applied 36 – 80 kg-N ha^{-1} approximately from April to September of each year for through fertigation. Fresh strawberry fruit yield was measured once to twice per week from 40 designated harvest plants in the middle two beds of each plot from May to September in all years. Marketable and cull fruit yields were weighed separately and recorded by experienced harvesters.

3. N dynamics monitoring

Throughout the growth period plants were sampled every two to three months; and soils (0-60 cm deep) monthly. Biomass and total-N content in each part of the strawberry plant were determined. N content in plants was measured by aforementioned method used for organic fertilizer N analysis. Cumulative daily N uptakes were calculated from regression curves of N content and biomass of plants and fruits (Hunt, 1982). Nitrate and ammonium was extracted from soil with 2M KCl and determined by the flow injection analysis method (Lachat Instruments, 1993a, 1993b) and was expressed volumetrically as inorganic N (= NO_3-N + NH_4-N kg ha^{-1}).

We estimated N-Loss from the root zone during the rainy season (between 0 and 20 weeks after planting, which is approximately from mid November to early April. Nloss) using the following formula:

Nloss (kg ha^{-1}) = (Soil inorg. N_0 - Soil inorg. N_{20wks}) - (Plant uptake N_{20wks} - Plant input N_0)

where: Soil inorg. N_0 = Inorganic N (kg ha^{-1}) in 0-30 cm deep soil at planting; Soil inorg. N_{20wks} = Inorganic N (kg ha^{-1}) in 0-30 cm deep soil 20 weeks after planting; Plant uptake N_{20wks} = Plant uptake N (kg ha^{-1}) 20 weeks after planting; and Plant input N_0=N input (kg ha^{-1}) from transplants. We defined a 0-30cm soil layer in the bed area as the strawberry root zone, based on literature (University of California Integrated Pest Management Program, 1994) and a preliminary strawberry root profile survey. A period of 20 weeks from planting was selected for this analysis since more than 90% of precipitation during the entire growth period is concentrated in this period. Soil residual inorganic N (Nres. kg ha^{-1}) from the previous crop in 0-30cm soil layer was also measured each year.

4. Optimizing N management practices

To develop optimized N management practices, the following four-step approach was employed;

1) Identify plots from each year that had good similar yield,
2) Collate data on N inputs, soil residual inorganic N (Nres) prior to strawberry planting, total plant N uptake, and soil inorganic N dynamics to calculate N loss during the winter (Nloss) from plant N uptake and soil inorganic N,
3) Use polynomial regression analysis to find the best fitted model for predicting Nloss,
4) Use the model to calculate appropriate N application rates to limit Nloss to given target levels.

For step 3, forward stepwise polynomial regression were performed using the visual general stepwise regression package of STATISTICA (StatSoft Inc., 2000). For step 5, 100 kg-N ha^{-1} was used as a target maximum Nloss (with ± 95% confidence limits).

RESULTS

For step 1, five Aromas sub-plots, one from each year, with similar marketable fresh fruit yield of ~40 tons ha^{-1} were selected for analysis (Table 1). Total N application rates varied from 300 to 610 kg ha^{-1} among plots due mostly to the variation in pre-plant N rate. Table 2 summarizes data on Nres, pre-plant N from broccoli residues (Nbro), compost (Ncom) and pelleted organic fertilizers (Npel), and precipitation amount and Nloss during the 20 weeks from planting each year. Although five plots with a similar yield were selected (Table 1), Nloss varied greatly among these plots, ranging from 13 to over 200 kg ha^{-1} (Table 2).

Table 1. N application rate and marketable fruit yield in plots selected from a five-year organic strawberry rotation experiment, Moss Landing, CA. One plot per year with similar marketable fruit yield was selected.

Year	Main plot*	Subplot**	Pre-plant N kg ha^{-1}***	Supplemental N kg ha^{-1}	Total N kg ha^{-1}	Marketable fruit yield tons ha^{-1}
1	0 (Continuous)	Aromas	315	36	351	39.8 (3.5)****
2	2 years	Aromas	303	52	355	38.7 (3.8)
3	0 (Continuous)	Aromas	531	79	610	45.8 (3.4)
4	0 (Continuous)	Aromas	228	73	301	44.0 (1.3)
5	7 years	Aromas	342	80	422	38.0 (0.7)

*Years between strawberry plantings. **Cultivar. ***See Table 2 for sources. ****Average of 4 replications. Number in ( ) indicates SEM..

Table 2. Residual soil inorganic N (Nres), applied pre-plant N from broccoli residues (Nbro), compost (Ncom) and pelleted organic fertilizers (Npel), and precipitation amount (Precip) and N loss (Nloss) during the 20 weeks from the planting date at selected plots from an organic strawberry rotation experiment at Moss Landing, CA.

Year	Nres kg ha^{-1}	Nbro kg ha^{-1}	Ncom kg ha^{-1}	Npel kg ha^{-1}	Precip* mm	Nloss kg ha^{-1}
1	140	147	86	82	315	214
2	15	143	117	43	303	13
3	20	266	198	67	531	180
4	25	126	50	52	228	14
5	2.2	125	163	54	342	100

*Precipitation amount data was provided by the Elkhorn Slough National Estuarine Research Reserve.

To find the best fitted model to predict Nloss, forward polynomial regression analysis (Kleinbaum *et al.*, 1998) was preformed using Nres, $Nres^2$, Nbro, $Nbro^2$, Ncom, $Ncom^2$, Npel, $Npel^2$, Nres+Nbro, $(Nres+Nbro)^2$, Nres+Ncom, $(Nres+Ncom)^2$, Nres+Npel, $(Nres+Npel)^2$, Nres+Nbro+Ncom, $(Nres+Nbro+Ncom)^2$, Nres+Ncom+Npel, $(Nres+Ncom+Npel)^2$, Nbro+Ncom+Npel, $(Nbro+Ncom+Npel)^2$, Nres+Nbro+Ncom+Npel, $(Nres+Nbro+Ncom+Npel)^2$,

and Precip as independent variables. We used P=5% as a criteria in forward stepwise procedure. As a result;

$$\text{Nloss} = -44.1690 + 0.002739\ (\text{Nres+Ncom+Npel})^2$$

($Y = \beta_0 + \beta_1 X_1$ with Y = Nloss and X_1= (Nres+Ncom+Npel)^2),

was obtained as the best fitted model (P=0.0024**, 0.087, and 0.0024** for the whole model, β_0, and β_1, respectively). According to this model, to limit Nloss to 100 kg ha^{-1}, the maximum amount of Nres+Ncom+Npel is 230 kg-N ha^{-1} (Table 3). Some possible combinations of Nres, Ncom, and Npel application rates that would achieve to this Nloss limit are shown in Table 4. Similar calculations can be done using other Nloss limits as desired using the data in Table 3.

Table 3. Predicted N loss during the winter season (Nloss) under different amounts of the sum of residual soil inorganic N, and applied N from compost and pelleted organic fertilizers (Nres+Ncom+Npel) based on the best fitted model from polynomial stepwise regression.

Nres+Ncom+Npel kg ha^{-1}	Nloss Predicted kg ha^{-1}	Nloss -95% C.L.* kg ha^{-1}	Nloss +95% C.L. kg ha^{-1}
100	-16.8	-65.0	31.4
150	17.4	-21.9	56.8
200	65.4	35.6	95.2
230	101.0	73.8	128.0
250	127.0	99.0	155.0
300	202.0	160.0	244.0

*Confidence limit.

Table 4. Examples of residual soil inorganic N (Nres), applied N from compost (Ncom) and pelleted organic fertilizers (Npel) combinations to limit N loss during the winter to 100 kg ha^{-1}

Nres kg ha^{-1}	Ncom kg ha^{-1}	Npel kg ha^{-1}	Nres+Ncom+Npel kg ha^{-1}
10	170	50	230
30	120	80	230
50	100	80	230
50	140	40	230
100	80	50	230
140	50	40	230

DISCUSSION

N inputs in organic strawberry production in this experiment (Table 1) appears to be much higher than ones in conventional strawberry that is usually in a range of 168-337 kg ha^{-1} (University of California Integrated Pest Management Program, 1994). However such comparison is misleading since the high N input in the organic system includes N from

incorporation of the previous crop (broccoli) residues that are not included as an N input in the conventional calculation. Further, N in plant residues and compost are predominantly in organic forms, and are converted to inorganic N gradually after biological decomposition processes; thus all the N in these materials may not be available until later in the season or even the following season. Marketable fruit yields from the experimental plots we selected (~40 tons ha^{-1}. Table 1) are higher than the normal organic strawberry yield range of 22 to 36 tons ha^{-1} in this area (Bolda *et al.*, 2006), which verifies that a balance of high yields and environmental protection can be achieved.

Pelleted organic nitrogen fertilizers are popular among organic strawberry growers in California and are often misleadingly advertized as slow-release N fertilizers. However their mineralization rate is rather fast. Hartz and Johnston reported that 60 to 66% of organic N in feather meal, seabird guano, fish powder, and blood meal was mineralized in 8 weeks under the temperature between 10 and 25 degree C. Therefore reducing the proportion of pelleted organic fertilizers as a pre-plant may be a good strategy to reduce both nutrient loads to the environment and production costs for growers since these fertilizers are rather expensive (Hartz and Johnstone, 2006).

The fate of lost N includes surface runoff, leaching, and denitrification. N loss by runoff is the major problem in this site having a thick claypan approximately 45 cm below the soil surface. This layer interrupts vertical infiltration of soil water significantly (Cahn *et al.*, 2006).

We have not discussed supplemental N applied as fertigation in this paper, since this is not significant in the first 20 weeks. However, it appears that the synchrony of N supply and N demand of strawberries has been improved not only by reducing the pre-plant pelleted N (Table 2) but also by increasing supplemental N (Table 1) during the five-year experiment.

The best fitted model developed in this study is a useful tool for the grower in this ranch to optimize pre-plant N rate depending on highly variable Nres levels found from year to year. To determine how site specific the model is we are collecting data from two other locations where we are conducting factorial field trials with different N rates and timing; and will use the results in a similar analysis as presented here.

ACKNOWLEDGEMENTS

This project was partially funded by the North American Strawberry Growers Association research grant, the Center for Agroecology and Sustainable Food Systems and the Alfred Heller Chair in Agroecology at UC Santa Cruz, the Halliday Foundation, Organic Farming Research Foundation, USDA Integrated Organic Program #2004-51300-02232, The Central Coast Regional Water Quality Control Board Non-point Source Pollution Fund of the Community Foundation for Monterey County, and California Strawberry Commission. Weather data were kindly provided by the Elkhorn Slough National Estuarine Research Reserve.

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Response to Comment P-1

This comment is summarized and responded to in Master Response 2.7.6.

Response to Comment P-2

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

Response to Comment P-3

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

Response to Comment P-4

This comment is summarized and responded to in Master Response 2.3.7.

Response to Comment P-5

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

Letter Q: Glenn Olson, Fruit Growers Laboratory (June 3, 2020)

Letter Q

From: Glenn Olsen
To: AgNOI, WB@Waterboards
Subject: Comments on Ag Order 4.0
Date: Wednesday, June 3, 2020 1:08:13 PM
Attachments: FGL_Logo.png

EXTERNAL:

Good day. I represent Fruit Growers Laboratory. I have a couple of questions/concerns regarding the draft Ag Order. My questions are specific to **Sampling**. Thank you for your consideration.

Q-1 Question 1: Will qualified 3rd party samplers be permitted during 4.0 as they were in 3.0?

Q-2 Question 2: **Table MRP-12. On-Farm Domestic Wells**, provides a 3 month monitoring period (Mar 1 - May 31, 2021). Three months is not nearly enough time to get to all the wells and collect samples. Will you consider extending the monitoring period to a minimum of 4 months and preferably 6 months?

--
Regards,

Glenn Olsen
Marketing Director
805-392-2054

Response to Comment Q-1

The comment is noted.

Response to Comment Q-2

The comment is noted.

Letter R: Marisa Bloch, Pasolivo (June 11, 2020)

Letter R

From: Marisa Bloch
To: AgNOI, WB@Waterboards
Subject: Comments on Draft EIR
Date: Thursday, June 11, 2020 4:45:07 PM
Attachments: image001.png

EXTERNAL:

To Whom it May Concern:

R-1 As a company who complied when we were first visited in regards to these new regulations and permits I have some concerns regarding this. We installed thousands of dollars worth of equipment in order to be able to successfully capture the waste waster from our Harvest production in order to properly test it and land apply it. We also paid the fees associated with permitting.

R-2 We then found out that there were several other stationary producers not being regulated and several mobile mills as well. Some of these other producers (especially the mobile mills) are causing far more waste water than some of the individual producers that were approached first to follow these guidelines.

R-3 Until it can be ensured that ALL producers and mobile mills will be regulated and held to the same standards, I do not feel it is appropriate to initiate these guidelines and fees. It is not fair to have some producers complying with the regulations and paying thousands of dollars while others have no impact at all.

Thank you for your time and consideration on this matter.

Marisa Bloch
General Manager
Tel: 805.227.0186
Pasolivo
Pasolivo.com | 8530 Vineyard Drive, Paso Robles, CA 93446

Response to Comment R-1

The comment is noted.

Response to Comment R-2

The comment is noted.

Response to Comment R-3

The comment is noted.

Letter S: Ron Labastida, Babe Farms Inc. (June 12, 2020)

Letter S

From: Ron Labastida
To: AgNOI, WB@Waterboards
Subject: Comments of Draft Ag Order 4.0
Date: Friday, June 12, 2020 10:52:50 AM

EXTERNAL:

Water Board,

S-1 I do have comments on the Ag Order 4.0. I know this has been in the making for some time, but it is really hitting many of us growers at a difficult time.

S-2

Farms Plans and INMP Summary report

- This will require significant expertise to develop and update.
- With the required data collection and to complete compliance reporting calculations. Many of us do not have the technical resources in house and will need assistance to be compliant. I have no idea what this cost would be?

-

S-3

INMP for Ground Water Protection

- The calculations need to take in account other forms that are not listed as removed nitrogen.

S-4

- With variables in soil types and conditions, nitrogen applied will not always have the same results. Hard to base all specific cropping varieties to have same nitrogen needs?

S-5

- In a few years we would not be able to have multiple crops per year as the chart declines in the years to come. Paying leases of $2,500 per acre year and only having one vegetable crop is not possible.

S-6

- An incentive credit program needs to be established with other consideration for calculating nitrogen.

S-7

SEMP

- TMDL qualifiers are very low and would be difficult to establish. Needs to be a more reasonable value.

S-8

- Stormwater flow events difficult to predict. To design, build, and maintain retention basins would be a high cost. I see where there would also be food safety concerns for catch water basins.

S-9

- Again this brings more monitoring, additional record keeping assistance, possible outside contractor or engineer.

-

S-10

Groundwater Monitoring and Reporting

- MCL for domestic wells allowances should remain in place. Require less frequent domestic sampling.
- This also creates additional monitoring, again the need for a 3rd party to be contracted, additional cost.

S-11

- For the well sampling, is there a base for what pesticide we are monitoring. Again additional monitoring and reporting.

-

Riparian Area Management and Setbacks

S-12
- New riparian vegetation in setbacks as a requirement for water quality. How is this related to the Ag Order or Waste Discharge Requirements.

S-13
- This will reduce the production acreage and increase the growing production cost. We would continue to pay high rent cost with no cash crop to off-set these cost. Who determines what is planted, vegetation can be specific to area. Are these planted areas to be irrigated, fertilized, and accountable in plan?

S-14
- Again the planting and maintenance of such vegetation is additional cost and man power.

S-15
- The vegetation also brings concerns of creating habitat for rodents and wildlife. Again additional high risk for Food Safety compliance.

Additional Requirements

S-16
- Farm roads to be constructed to CA code of regulations. These are typically private dirt roads. The cost and maintenance would be unreasonable for most growers. Again will this require additional monitoring and recording? During heavy rain events would we even be able to access these roads as part of the regulations. Many growers do not have the proper grading machinery. Again will this have to contracted to heavy construction.

S-17
- Compost with more compliance requirements would actually discourage the process. Need to encourage the compost process and provide a reasonable compliance plan that will still minimize the contamination risk.

S-18
I am for a water management plan. My concerns are expressed by many and we need a plan that is workable for all. Again, implementing these stated compliance regulations will be a difficult task. Farming in the future will be a new game. Unfortunately it may have many rethink if there is a future in farming on the central coast? I would rather be optimistic, we need reasonable guidelines.

Thank you,

Ron Labastida
Food Safety Director
Babe Farms Inc.
Coastal Valley Farms
805-925-5690 office
805-714-3566 cell
ron@babefarms.com

Response to Comment S-1

The comment is noted.

Response to Comment S-2

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

Response to Comment S-3 through S-4

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

Response to Comment S-5

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

Response to Comment S-6

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

Response to Comment S-7

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

Response to Comment S-8

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

Response to Comment S-9

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

Response to Comment S-10

This comment is summarized and responded to in the following Master Responses: 2.9.7; 2.9.1; and 2.4.3.

Response to Comment S-11

This comment is summarized and responded to in Master Response 2.9.7.

Response to Comment S-12 through S-15

This comment is responded to in Master Response 2.8.8.

Response to Comment S-16

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

Response to Comment S-17

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

Response to Comment S-18

Thank you for your comment.

Letter T: Christopher Bunn (June 15, 2020)

Letter T

From: Christopher Bunn
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Monday, June 15, 2020 9:38:40 AM

EXTERNAL:

Dear Central Coast Water Board,

T-1 The farming community is watching and analyzing the new Ag Order 4.0 with great dismay. The proposed regulations will have disastrous effects on our businesses, employees and the larger communities here in central coast California that depend on the farming economy for their ancillary jobs.

T-2 The expanded requirements for irrigation and nutrient management, expanded pesticide management, limits on fertilizer application, expanded riparian habitat management, expanded sediment and erosion management, and increased reporting and compliance requirements will all impose significant and onerous costs on farmers. It is clear that the economic review in the DEIR does not properly analyze this multitude of impacts.

T-3 Furthermore, the proposed nitrogen discharge limits will render much land useless due to the loss of sensible crop rotation. Loss of rotation, in turn, will damage the health of the ground itself, as the ground depends on proper rotation to enrich it with plant nutrients. The proposed nitrogen limits will, for many ranches, restrict the farmer to a single crop per year. This creates an economic impossibility.

T-4 There are many other problems with the new proposed order. The riparian setbacks in the order will have a plethora of negative effects: reduction of crop acreage, increased non-production costs due to being forced to maintain the new vegetated buffers, setback conflicts due to food safety requirements that are triggered by the proximity of habitat.

T-5 It seems that one of the inferred goals of the new order is to make farming even more difficult and economically infeasible than it already has become. This will end up in driving more food production out of state and out of country.

T-6 I trust that the board will listen carefully to the concerns of the farming community. We know the land and we know farming. Contrary to certain beliefs, we, of all people, are the most concerned with the health of the land. It is our livelihood. Family businesses such as mine have been farming the same land for multiple generations (four in my case, and for one hundred years as of 2021). We are stewards.

Thank you for your time.

Sincerely,
Christopher Bunn

Response to Comment T-1

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

Response to Comment T-2

This comment is summarized and responded to in 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, refer to Master Response 2.10.

Response to Comment T-3

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

Response to Comment T-4

This comment responded to in Master Response 2.8.8.

Response to Comment T-5

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

Response to Comment T-6

Thank you for your comment.

Letter U: Kevin Gee, Darensberries LLC (June 15, 2020)

Letter U

From: Kevin Gee
To: AgNOI, WB@Waterboards
Subject: Map Tool Errors
Date: Monday, June 15, 2020 8:55:33 AM

EXTERNAL:

U-1

I have found a stream on the map that does not exist. I'm concerned that in the future the map will trigger unnecessary regulation.

The stream is located on the White Hills ranch located south of Orcutt on the 135, south of the Lompoc/ Vandenburg exit and north of San Antonio Rd. The map shows an unnamed stream that runs from east to west meaning up with a drainage ditch on that follows the 135. There is no stream here.

Please let me know if you need more information.

Thank you,

Kevin Gee
Vice President
Darensberries Llc
Cell: (805) 310-8149
Office: (805) 937-8000



Response to Comment U-1

This comment is responded to in Master Response 2.8.8.

Letter V: Jazmin Lopez, Pisoni Farms (June 15, 2020)

Letter V

From: Jazmin Lopez
To: AgNOI. WB@Waterboards
Cc: Mark Pisoni
Subject: Comments on Draft Ag Order
Date: Monday, June 15, 2020 8:47:44 AM
Attachments: Pisoni - Ag Order 4.0 signature.pdf

EXTERNAL:

Central Coast Water Board,

We thank you for the opportunity to provide comments on the latest draft of Ag Order 4.0. Please find our comments attached.

Thank you,

Jazmin Lopez
Pisoni Farms
(831) 675-7500
jazmin@pisonivineyards.com

June 10, 2020

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
Email: AgNOI@waterboards.ca.gov

Subject: Comments on Draft Ag Order

To Whom It May Concern:

V-1 Thank you for the opportunity to provide comments on the Draft Ag Order 4.0. As a third-generation farmer in the Salinas Valley, I take pride in growing quality vegetables and wine grapes while creating jobs for my community. I am passionate about farming, and as the current COVID-19 crisis has shown, having a *secure* and *local* food supply is critical for the resiliency of our food systems and our nation's economy. The draft Ag Order 4.0, as currently written, has the potential to drastically change farming economics. For a small farming operation like mine, that could result in rendering us unviable over the long term. This Order is only one of the many ever-changing regulations we in agriculture must comply with in California. I state this not to complain, I realize that that is a part of doing business in California, I state this because I hope that the Central Coast Water Board can meet us somewhere in the middle. We all want what is best for our watersheds, for our groundwater basins, and for our agricultural lands. Together we must also face the very real fact that everything has a cost. The proposed draft as it stands would require major investment to comply with the monitoring and reporting requirements. Money that would be better spent on implementing on-farm best management practices.

V-2 After listening in on the webinar put on by your staff and taking time to read the draft Ag Order in its entirety, I would like to share the following comments and concerns with the Central Coast Water Board.

General Comments

V-3
- This one-size fits all approach creates additional regulatory burden for all of us farming on the Central Coast when it isn't necessary. While the draft allows for phased in compliance based on priority areas, in the end, we will all still have to do the required

Page 1 of 6

V-3 cont.

monitoring and reporting even if we farm low-risk crops or are farming in lower risk ranches. As in previous Ag Orders, I hope that the Water Board will consider exceptions for crops that pose minimal risk to water quality.

V-4

- Previously Sustainability Certification was an incentive. This has greatly helped to relieve some of the regulatory burden for us. All of our vineyards are SIP Certified. We work hard each year to maintain this certification and to follow the best practices set by their standards. It would help farmers greatly if these incentives were still in place.

V-5

- Incentivize: The Board should incentivize the use of Best Management Practices (BMPs) by reducing required monitoring/reporting/fees for the farming operations implementing BMPs. Improving management practices is what will have the greatest impact on water quality, and incentivizing their implementation should be the focus.

Farm Water Quality Management Plan

V-6

- To develop, implement and update the Irrigation and Nutrient Management Plan, Pesticide Management Plan, Sediment Erosion Management Plan, Riparian Area Management Plan, we will have to hire a consultant. This draft of Ag Order 4.0 is much more technical, and for a small farming operation of our size with limited resources and staff, we will have to seek out professional help to assist us in completing compliance reporting. Those are dollars that will go to consultants instead of to on-farm improvements.

V-7

- Continuing Education Requirement: Since we are required to save records of continuing education participation, can the Board be more specific around what type of education events would meet this requirement, and be more specific on how often farmers must attend continuing education events.

Irrigation & Nutrient Management

V-8

- Limits for fertilizer Nitrogen Application should be targets. There is so much variability to farming, market quality demands are real. We have to be able to sell our crops in order to remain viable. Growing conditions vary ranch to ranch, weather events can impact the need for additional fertilizer to be applied. There needs to be flexibility. Imagine the scenario where due to fertilizer limits the farmer was unable to meet quality requirements

V-8 cont.

and the shipper can't harvest. That failed crop will then have to be tilled under increasing the nitrogen load, the exact opposite of our goals here.

V-9

- Nitrogen Discharge calculations- Please consider removing this requirement until more research is completed. Tracking "nitrogen removed" is challenging, especially for contract growers, like myself, who have no control over the harvest of the product. Another idea might be to have us look instead at Nitrogen Use Efficiency (NUE). This would be a better measurement for farmers because how we farm directly impacts NUE. We would have to follow best management practices to ensure our crops are using the nitrogen we apply efficiently, thus reducing the chances that nitrates get leached into our groundwater.

V-10

- The proposed nitrogen discharge limits also have the potential to make our current crop rotation systems economically or agronomically infeasible. We rely on multiple crops per season in order to be able to pay the rent due for the leased lands we farm. This is why we plead with the Board to meet us somewhere in the middle. Let's really look at what will have the biggest impact on our water quality, while still allowing farms to make a profit.

V-11

- If the Board is unwilling to remove the limits for Nitrogen Discharge, then they should change them to be targets only. There isn't enough research on this subject to know if it will be a good measurement. It also seems that coefficients to determine nitrogen removed should be developed before deciding on established limits. The removal of nitrogen also has so much to do with produce markets. To penalize a farmer, especially those of us who are contract farmers, because our shipper did a poor job of harvesting a field due to a bad market, seems grossly unfair. The current COVID-19 crisis is a perfect example of this. This has been such a challenging year for all farmers in our state. Many crops had to be tilled under because there was no market for them. Instead of penalizing farmers for not being able to control Nitrogen Removed, the Board should incentive them to follow best management practices when it comes to fertilizer usage.

Sediment and Erosion Control

V-12

- 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 our region.

V-13

- Monitoring and reporting of stormwater discharges will be very difficult to achieve.

Page 3 of 6

Groundwater Monitoring and Reporting

V-14
- The precedential Easter San Joaquin Irrigated Lands Program only requires an averaging of irrigation wells, not all. The same requirement should apply here.

V-15
- Groundwater trend requirements should be completed cooperatively for the sub-basin or region and not per each ranch. Having the option for farmers to do this individually at the ranch level doesn't provide additional insight into groundwater quality. It would be expensive for a farm to do this trend monitoring on their own. It is important to remember how dynamic groundwater is.

V-16
- Monitoring each well on every ranch isn't the best use of resources. Well monitoring should be strategic and representative of the basin.

Surface Receiving Water Monitoring & Reporting

V-17
- 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

V-18
- While I am a proponent of habitat restoration and California native plants, as demonstrated by our business's actions, this section of the draft Ag Order 4.0 should be removed. There are many other best management practices out there that can help with surface water quality, such as planting cover crops, tailwater ponds, wood chips, using seasonal buffer strips, etc. While riparian habitat may work well for some farms, it may not be the best option for all as each farming operation is unique with its own needs and challenges. Instead of requiring this one management practice, why not incentivize farmers to use management practices that work best for their particular farm. I come back to the key question "what is our end goal?" Our goal is to improve water quality, there are many paths one can take to get to that goal. Instead of being prescriptive why not look for ways to incentivize farmers to implement best management practices.

V-19
- Food Safety & Riparian setbacks. As a farmer, I've read the research on co-management of food safety and conservation. It makes sense to me, we've been farming outdoors for centuries and have coexisted with wildlife. I understand the Board's argument made during the webinar about how the Riparian setbacks shouldn't impact food safety on the farm. I'm sure you've read the same research on co-management.

V-19 cont.

But as a farmer in 2020, we have strict food safety requirements we must follow in order to sell our crops. One of which is shippers and buyers want native vegetation cleared or for us to keep substantial buffers between them and the growing areas. They don't even want to see birds in our fields. With E.coli still being a problem in leafy greens, this is a real concern. This is why I am suggesting that this not be a requirement, and that instead farmers be allowed to put into practice the management practices that are the best fit for their particular farming operation.

V-20

- The riparian setback expansion as proposed will also reduce field production areas, impacting production yields and reducing our farm's return per acre. This would impact land value.

V-21

- As someone who has planted natives and has done habitat restoration at my vineyards, I also know the time and investment needed to do this type of work. The native plants themselves are not expensive. But it requires preparing the land where they will be planted, putting in irrigation (because you absolutely need to irrigate them the first year for them to get established), it requires on going maintenance to keep noxious and invasive weeds from overtaking the area, and it will take years before it is fully established. The majority of farmers LEASE their land. This is a big ask to require them to make this kind of investment on property that they do not own. I am aware that the order states both the farmer and landlord are responsible for complying, however we all know that it's really the farmer who will perform all the work and make the investments needed to be in compliance, usually per preexisting contracts.

V-22

Additional Requirements

- Being required to construct farm roads to state code is unnecessary and expensive.

V-23

I hope that the Board takes my comments into consideration. Understand that we want to improve water quality on the Central Coast, but the realities we face on our farms just don't align with this order as it is currently written. We can't farm based off of numbers on a spreadsheet. We need the board to meet us somewhere in the middle. We need the Board to allow for more flexibility with this order. So many of our day to day farming decisions are impacted by various external factors. Some of which, such as the weather and markets, are out of our control. Instead of setting all of these limits, please help farmers in our area focus their time and dollars on implementing BMPs that protect water quality.

Page 5 of 6

V-24 We want to stay economically viable here in California. We want to provide fresh nutritious local food here to our communities. We want to provide good jobs to those that need them in our rural areas. We want to be good stewards of the land. We want to farm. To do all those things, we must strike a balance, help us achieve that balance by working with us and not against us.

V-25 Thank you for taking the time to review and take our comments into consideration. If you have any questions regarding what we have outlined in this letter feel free to call our office at any time, 831-675-7500.

Respectfully,



Mark Pisoni, Farmer
Pisoni Farms

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Response to Comment V-1

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

Response to Comment V-2

The comment is noted.

Response to Comment V-3

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

Response to Comment V-4

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

Response to Comment V-5

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

Response to Comment V-6

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

Response to Comment V-7

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

Response to Comment V-8

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

Response to Comment V-9

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

Response to Comment V-10

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

Response to Comment V-11

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

Response to Comment V-12 through V-13

This comment is summarized and responded to in Master Response 2.7.3.

Response to Comment V-14

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

Response to Comment V-15 through V-16

This comment is summarized and responded to in Master Response 2.4.4.

Response to Comment V-17

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

Response to Comment V-18 through V-21

This comment is responded to in Master Response 2.8.8.

Response to Comment V-22

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

Response to Comment V-23

The comment is noted.

Response to Comment V-24

The comment is noted.

Response to Comment V-25

The comment is noted.

Letter W: Frank Tucker, Tucker Family Farms (June 16, 2020)

Letter W

From: Andrew Tucker
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Tuesday, June 16, 2020 3:10:29 PM

EXTERNAL:

Dear Executive Officer Keeling:

W-1 My family and I are small family farmers and grape growers in Northern San Luis Obispo County at 2620 California Poppy Lane in San Miguel.

We have about 15 acres and grow grapes and olives.

We farm with organic practices, efficient drip irrigation and live on the property and have one well that serves for our use as well as irrigation.

W-2 Having read the proposed Draft Ag Order it frankly seems **bewildering in complexity and requirements**.

It will add significant complexity and cost for as small farmers to complete all the reporting requirements and given how we farm today it won't improve water quality for me or my neighbors who farm with similar practices. We frankly can't afford to hire professionals to complete all the water quality reviews and studies - it will make it uneconomical for us.

W-3 I urge you in the strongest terms to find alternative methods to achieve improved water quality goals without making farming uneconomical for small farmers.

Sincerely,

Frank Tucker
Tucker Family Farms
Terrace Hill Olive Oil

Response to Comment W-1

Thank you for your comment.

Response to Comment W-2

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

Response to Comment W-3

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

Letter X: Chris Matthews, Alta Vista Farms (June 17, 2020)

Letter X

From: Chris Matthews
To: AgNOI, WB@Waterboards
Subject: Comment on Draft Ag Waiver 4.0
Date: Wednesday, June 17, 2020 8:33:41 PM
Attachments: Ag Waiver 4.0 Public Comment Letter.docx

EXTERNAL:

Attached Public Comment Letter on Draft Ag Waiver 4.0

June 15th, 2020

Comments on Proposed Ag Waiver 4.0.

To whom it may concern,

X-1 We are a family farm growing berries on the California Central Coast, and have been doing so for the past 60 years. We'd like to add a few comments to the proposed changes that Ag Waiver 4.0 would have on our operation, and our ability to continue to care for the land that we grew up on and love.

X-2 Firstly, we'd like to raise the point about Biomass Removal. As the proposed changes are currently written, this would be a huge dis-incentive to mulch our pruned raspberry and blackberry canes back into the soil. This long-practiced tradition preserves soil structure and soil health, by adding back in literally tons of organic matter. The way the proposal is currently written, we'd have to use additional labor to literally remove all the biomass from the field and take it to a TBD location. What happens to it there?? This creates an unnecessary labor burden, and simply moves the problem to a different location. We'd like to suggest that some type of 'biomass factor' to be used, to help give the farms that utilize these types of systems that can account for the amount of N that is mineralized withing the first year or two. This would help encourage proper land management and the building of healthy soils.

X-3 Secondly, we're concerned about the riparian area setbacks as they are currently drafted. We need to ensure that if the farming operation is behind a man-made levee, that any type of setback doesn't extend past this point, as there would be no ecological benefit to doing so, and would be counterproductive on all fronts. The scale and clarity around this ordinance are potentially very crippling to large areas of land, and will as a side factor drive up land values that aren't near riparian areas, and negatively impact those that are.

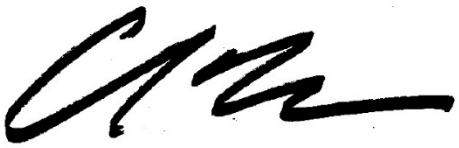
X-4 Thirdly, we are actively pursuing containerized production to give us more control over water and fertility use. As an excellent side benefit, we're able to capture our drain water and reuse it, along with any fertilizer that went unused the first-time round. This is a great win-win for our operation and for the environment, but we need flexibility within the constructs of this newly proposed Ag Waiver 4.0 to create the most efficient system that doesn't drain or leach any fertilizer to the ground water or to surface water. The possibilities are incredible, but we need to have the order properly worded in order to make them a reality. Please refer to the proposal that Driscoll's submitted, as they have been leaders in water quality and quantity preservation for years, and we support their proposal for these types of systems.

X-5 And lastly, we need to all be aware of the added burden and cost of these regulations. The reporting alone isn't as simple as paying someone an hourly wage to make these reports and attestations. In order to properly maintain and report on a farm water quality plan, one must have a 'whole operation' view, and must be trained. This task means that it needs to be someone who is at a high enough level to fully understand all the decisions and how those decisions affect not only the farm and its people, but also the water regulations. These costs are much higher for smaller growers, as they

X-5 cont. can't dedicate an individual to do this work, but in these instances, its usually the owner or top employee of the farm, taking time away from a myriad of other tasks to stay up-to-date on the regulations, but also complete all of the filing requirements, which comes at lost opportunity cost of doing other tasks that are required to operate a farm.

X-6 We hope our comments are seen as constructive, as we look forward to preserving the land and resources of which we depend for our livelihood for the next 60 years.

On behalf of everyone at Alta Vista Farms on the beautiful California Central Coast,



Chris Matthews

General Manager

Response to Comment X-1

Thank you for your comment.

Response to Comment X-2

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

Response to Comment X-3

This comment is responded to in Master Response 2.8.8.

Response to Comment X-4

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

Response to Comment X-5

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

Response to Comment X-6

Thank you for your comment.

Letter Y: David Rickert (June 17, 2020)

Letter Y

From: David Rickert
To: AgNOI, WB@Waterboards; David Rickert
Subject: Coments on Ag Order 4.0 Draft
Date: Wednesday, June 17, 2020 1:08:19 PM

EXTERNAL:

Y-1 I own a 25 acre agricultural zoned farm property in addition to my separate residential property, both in the Corralitos area. My farm contains 24 acres of natural land, home of redwood trees, various protected critters and a natural pond.

Also, to help pay the annual taxes and to provide an interesting activity for myself, I have planted 600 wine grape vines (less than one acre) and have been managing them for 11 years. I irrigate sparingly using water from a spring, use no pesticides and very little fertilizer (who wants excessive vine growth?). My yearly farm income from grape harvest never exceeds $8,000 and does not cover my expenses.

Y-2 My major concern about the requirements of Ag Order 4.0 is that the cost of compliance will shut down many small plots including mine. I think that vineyards and small plots should be exempt from these requirements, since they cause little problem. I plan to cease raising grapes and to sell the farm property for development if additional costs are imposed on me. My farm project for preserving nature will have failed.

Regards,
David Rickert
87 Mount Madonna Road
Watsonville, CA 95076

Response to Comment Y-1

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

Response to Comment Y-2

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

Letter Z: Till Guldimann (June 17, 2020)

Letter Z

From: Till at Guldimann.Net
To: AgNOI, WB6@Waterboards
Subject: Draft Ag Order
Date: Wednesday, June 17, 2020 8:22:32 AM

EXTERNAL:

Gentlemen

Z-1

This email is to comment on your "Irrigated Lands Program - Agricultural Order Renewal 4.0"

According to paragraph 27 in the first section under "Scope", my very small vineyard will be subjected to your reporting requirements because I have obtained a Pesticide User Permit from the Local County Agricultural Commissioner.

My very small vineyard, see www.chateauhetsakais.com, in the Santa Cruz Mountains AVA covers less than 2 acres. Since I occasionally sell a small portion of the crop to local winemakers and I use a minuscule amount of pesticides, I need a Pesticide User Permit.

Your proposed reporting requirements are clearly excessive for my type of operation. I ask you to incorporate in the above referred to Scope section wording which excludes my type of operation [e.g. "operations with more than $50,000 annual revenue"]

Sincerely
Till Guldimann

Till Guldimann, 21891 Via Regina, Saratoga, CA 95070, www.chateauhetsakais.com

Response to Comment Z-1

This comment is summarized and responded to in the following Master Responses: 2.9.8 and 2.1.7.

Letter AA: Joel Wiley, Wilbur-Ellis Agribusiness (June 17, 2020)

Letter AA

From: Joel Wiley
To: AgNOI, WB@Waterboards
Subject: Comments of Draft Ag Order 4.0"
Date: Wednesday, June 17, 2020 2:55:47 PM
Attachments: image001.png

EXTERNAL:

Matthew T. Keeling, Executive Officer,

AA-1 I oppose the Ag. Waiver 4.0 draft as written. I have listed below many of the issue facing agriculture today and the factor I have taken into consideration to oppose the Draft Order.

AA-2 FARM PLANS AND INMP SUMMARY REPORT

1. Plans, for smaller farms, will require significant professional expertise to develop and update, at considerable cost; there are not enough professionals to service all farms for these plans.

AA-3
2. Significant data collection and retention will be required to meet annual compliance reporting.

AA-4
3. ACF data must be entered manually into GeoTracker; there is no upload function from standardized formats or spreadsheets, adding to compliance time reporting.

AA-5
4. Small farms lack resources to complete compliance reporting calculations and will require technical assistance.

AA-6 IRRIGATION AND NUTRIENT MANAGEMENT FOR GROUNDWATER PROTECTION

1. These calculation methods do not take into account all forms of nitrogen removed, volatized, or otherwise lost, not the different ways growers mitigate for nitrogen loss; these should be inherent to any calculation.

AA-7
2. Improving groundwater quality is important to growers, but it must be done in a balance format; draft recommendations would make it impossible to grow more than one vegetable crop per year in our Central Coast cropping systems, and significantly shorten berry crop timelines by 2050.

AA-8
3. More focus must be placed on innovation and providing credits for mitigating nitrogen to groundwater, not limiting fertilizer inputs.

AA-9
4. Regardless of calculation method, the use of high-nitrogen irrigation water should be incentivized, and both calculation methods should build on that incentive.

AA-10 SEDIMENT AND EROSION CONTROL

1. 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.

AA-11
2. TMDL qualifiers are artificially low and cannot be achieved with current farming practices and available science; TMDL targets should be just that, targets only.

AA-12
3. Stormwater 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.

AA-13
4. Monitoring and reporting of surface (stormwater) discharges will be difficult to achieve.

AA-14
5. Impermeable surfaces move around due to crop rotations; additional expense to develop SEMPs will discourage these crops from being produced, which are crops with significant up-

AA-14 cont. front investments.

GROUNDWATER MONITORING AND REPORTING

AA-15
1. The precedential Eastern San Joaquin Irrigated Lands Program only requires an averaging of irrigation wells, not all; the same requirement should apply here.

AA-16
2. 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.

AA-17
3. Individual groundwater trend monitoring will be difficult to substantiate trends due to groundwater movement in any aquifer or sub-basin.

AA-18
4. Trend monitoring by a third-party will require data aggregation from multiple wells and cooperation from multiple ranch managers and/or landowners.

AA-19
5. Ranch-level groundwater discharge monitoring and reporting is punitive and will not provide additional insight into groundwater quality.

AA-20
6. There are no metrics for determining that a well must be monitored for pesticides.

SURFACE RECEIVEING WATER MONITORING AND REPORTING

AA-21
1. 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.

AA-22
2. 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

AA-23
1. 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.

AA-24
2. Riparian setback expansion will reduce field production areas, impacting crop production yields per acre and costs of production (reducing financial return per acre).

AA-25
3. For landowners, loss of production areas will reduce rental income and possibly overall land value.

AA-26
4. Establishment of vegetation will add costs and take significant effort, along with maintenance, and will require irritation and possibly fertilizers along with pest management to establish.

AA-27
5. Significant conflicts with food safety measures come with vegetative setbacks adjacent to production fields.

AA-28
6. 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.

ADDITONAL REQUIREMENTS

AA-29
1. Constructing farm roads to state codes is unnecessary and costly.

AA-30
2. Compost production and use should be encouraged with incentives, including on-ranch productio

ECONOMIC IMPACTS

AA-31
1. Central Coast Regional Water Board is proposing an onerous and restrictive regulatory program in a time of great economic uncertainty for the farming community.

AA-32
2. Lower production values will lead to job losses, impacting communities with higher levels of unemployment and lower tax revenues.

AA-33
3. Regulatory compliance costs will reduce available funding for capital improvements.

AA-34 4. Change of land use due to land idling will become a much larger issue for Central Coast counties.

AA-35 5. Economic impacts as it relates to human health, vector control issues, and flood control issues as Riparian habitat is expanded.

AA-36 Lastly, I support the implementation of a third party coalition to assist growers in complying with the adopted regulations. There are not enough trained and knowledge professtional to navigate the complicated Draft Order Ag Waiver 4.0.

Best regards,

Joel Wiley
Coastal CCA/PCA

Wilbur-Ellis Agribusiness
1427 Abbott St
Salinas, Ca 93901
Office: 831-422-6473
jwiley@wilburellis.com
ag.wilburellis.com

Response to Comment AA-1

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

Response to Comment AA-2

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

Response to Comment AA-3 through AA-4

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

Response to Comment AA-5

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

Response to Comment AA-6

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

Response to Comment AA-7

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

Response to Comment AA-8 through AA-9

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

Response to Comment AA-10

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

Response to Comment AA-11

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

Response to Comment AA-12

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

Response to Comment AA-13

This comment is summarized and responded to in Master Response 2.7.3.

Response to Comment AA-14

This comment is summarized and responded to in the following Master Responses: 2.7.3 and 2.9.1.

Response to Comment AA-15

This comment is summarized and responded to in the following Master Responses: 2.2.3 and 2.4.4.

Response to Comment AA-16

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

Response to Comment AA-17 through AA-18

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

Response to Comment AA-19

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

Response to Comment AA-20

This comment is summarized and responded to in Master Response 2.4.5.

Response to Comment AA-21

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

Response to Comment AA-22

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

Response to Comment AA-23 through AA-28

This comment is responded to in Master Response 2.8.8.

Response to Comment AA-29

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

Response to Comment AA-30

This comment is summarized and responded to in the following Master Responses: 2.1.2 and 2.3.8.

Response to Comment AA-31

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

Response to Comment AA-32 through AA-35

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

Response to Comment AA-36

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

Letter AB: Nathan Harkleroad, ALBA (June 18, 2020)

Letter AB

From: Nathan Harkleroad
To: AgNOI_WB@Waterboards
Cc: Patricia Carrillo; Jane Sooby
Subject: Comments on Draft EIR
Date: Thursday, June 18, 2020 11:11:25 AM
Attachments: image001.png

EXTERNAL:

Dear CCRWQCB:

AB-1 ALBA is a 501(c)3 non-profit organization with a mission to *create economic opportunity for limited resource and aspiring organic farmers through land-based education in the heart of the Salinas Valley*. Each year we train over 40 participants--primarily immigrant farmworkers--on organic production and small farm business management in the Farmer Education Course. Graduates can then apply to join ALBA's Organic Farm Incubator where over 35 farmers gain subsidized access to land, equipment, and technical assistance from ALBA staff and a robust partner network. Participants grow their businesses over 4 years and then transition off to independent farming. To date, we have trained over 400 participants in the Farmer Education Course and launched over 150 farm business in the incubator. The majority of Spanish-speaking organic farmers in San Benito, Santa Cruz, and Monterey counties are current or past program participants.

AB-2 On behalf of our farmers and those of a similar profile in our region, we are writing to strongly suggest that the following be incorporated into the Ag Order 4.0:

- Funding for technical assistance to assist beginning, limited-resource (LR)*, and socially-disadvantaged (SDA)* farmers enroll and manage their compliance throughout the duration of the order. Having helped dozens of farmers comply with the current and past orders, we know participants like ours face many cultural and resource-related barriers to becoming enrolled and then managing their compliance. The barriers can include language, access and knowledge of using technology, and the finances to pay out of pocket for outside professional help. Funding for TSPs needs to take into account the intensive nature of helping a farmer comply from 'start to finish'. * = as defined by the USDA

AB-3
- Phase-in for beginning farmers, LR, and SDA. We have a crisis in the state and country with an aging farmer population. ALBA is working to create a new generation of organic farmers. Farmers need time to learn production and generate a successful business model. Often times, they are putting in sweat equity just to get the farm started Simply put, they need a little time to get on their feet. For farmers of ALBA's profile, we suggest a phased in approach--or even an exemption--for some of the new requirements, such as, reporting on Nitrogen Removed.

AB-4 Furthermore, we are also in favor of the following refinements:

- Final Ag Order 4.0 should support and incentivize organic farming

AB-5
- Retain the Option for Commodity-Specific Orders

AB-6 - Subsidize Third-Party Programs
AB-7 - Include mineralization discount factors for organic fertilizers in addition to compost
AB-8 - Develop New Metrics That Better Assess Water Quality Risk Posed by Individual Farms
AB-9 - Take Steps to Mitigate Regulatory Costs on Small and Medium-Scale Farmers

Thank you for your consideration of our suggestions.

Sincerely,

Nathan Harkleroad Program Director
PO Box 6264 | Salinas, CA 93912
office 831.758.1469 x11 | cell 805.234.0546
www.albafarmers.org

"Agriculture . . . is our wisest pursuit, because it will in the end contribute most to real wealth, good morals and happiness." - Thomas Jefferson

Response to Comment AB-1

The CCWB acknowledges the commenter's background and interests.

Response to Comment AB-2 through AB-3

This comment is summarized and responded to in Master Response 2.1.13.

Response to Comment AB-4

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

Response to Comment AB-5

This comment is summarized and responded to in Master Response 2.4.4.

Response to Comment AB-6

Comment noted.

Response to Comment AB-7 through AB-8

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

Response to Comment AB-9

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

Letter AC: Jennifer Clarke, California Leafy Greens Research Program (June 18, 2020)

Letter AC

From: jennifer@calgreens.org
To: AgNOI, WB@Waterboards
Subject: Comment on Ag Order 4.0
Date: Thursday, June 18, 2020 2:03:12 PM
Attachments: ILRP Comment Letter.pdf

EXTERNAL:

Please see attached.

Jennifer Clarke
California Leafy Greens Research Program
O| 831.424.3782
M|831.595.9490
www.calgreens.org

CALIFORNIA LEAFY GREENS
RESEARCH PROGRAM

CALIFORNIA LEAFY GREENS
RESEARCH PROGRAM

512 Pajaro St. • Salinas, CA 93901
Tel: 831.424.3782 • www.calgreens.org

June 17, 2020

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

RE: Comments on the draft Ag Order 4.0

Dr. Mr. Keeling,

AC-1 I serve as the Executive Director of the California Leafy Greens Research Board (CLGRB). The CLGRB administers the CA Leafy Greens Research Program, which is a Marketing Order operating under the authority of the California Department of Food and Agriculture, and represents 67 leafy greens handlers in the State of California. For over 40 years, the California Leafy Greens Research Board has supported agricultural research to ensure that the issues of the industry are met through strong, scientifically based research programs. Funding for this research is secured through a mandatory assessment on all lettuce, spinach and spring mix grown in California. On behalf of the California Leafy Greens Research Board, I would like to submit comments regarding the draft Ag Order 4.0.

AC-2 For many years, the CLRGB has funded applied research projects done by the University of California's Cooperative Extension (UCCE). I believe that you have heard comments and testimony from the Monterey County Farm Advisors in regards to research they have conducted to help growers better manage irrigation water, runoff, and nitrogen use. The UCCE Farm Advisors are a great asset to the industry and are best positioned to do real world, applied research and communicate those results and learnings to the grower community.

The CLGRB also funds research projects at campuses within the California State University and University of California, as well as with the Agricultural Research Service within the United States Department of Agriculture (USDA-ARS). The research that the CLGRB has funded since 2008 can be found on our website: www.calgreens.org. While the CLGRB is committed to funding non-proprietary research that supports the industry, we can not fund all of the research needed.

AC-3 We urge you, the staff, and the board to make changes and updates to the Ag Order 4.0 that are supported by the best available science. We would also ask that consider looking for ways to fund research related to the Irrigated Lands Regulatory Program so that, together with other funding sources, we can gain a better understanding of practices that can move us towards the goals set by the Ag Order 4.0.

Operating Under the Authority of the California Department of Food and Agriculture

CALIFORNIA LEAFY GREENS
RESEARCH PROGRAM

512 Pajaro St. • Salinas, CA 93901
Tel: 831.424.3782 • www.calgreens.org

Thank you for the opportunity to comment.

Sincerely,

Jennifer Clarke
Executive Director

Operating Under the Authority of the California Department of Food and Agriculture

Response to Comment AC-1

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

Response to Comment AC-2

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

Response to Comment AC-3

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

Letter AD: Melissa Egger, Mesa Vineyard Management, Inc. (June 18, 2020)

Letter AD

From: Melissa Egger
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Thursday, June 18, 2020 10:12:04 AM

EXTERNAL:

Dear Executive Officer Keeling,

AD-1 I am writing to submit comments regarding Draft Ag Order 4.0. I am a part of the Mesa Vineyard Management team based in Templeton. We are a tight-knit, family-owned business managing over 12,000 acres of winegrapes across the central coast from Santa Barbara and San Luis Obispo to Monterey and San Benito Counties, with ranches ranging from less than 10 acres to over 2,000 acres in size. We have been operating for over 30 years, and have experience in conventional, sustainable, organic, and biodynamic farming, as well as food safety certificates, and we feel well-equipped to address the Order from these many different angles.

AD-2 For many of our ranches, we are already documenting and reporting nitrogen use, water use, pest management, and keep erosion management plans through our Sustainability in Practice (SIP) certifications through the Vineyard Team, which is also verified by an independent inspector. They have a user-friendly online system that allows for easy reporting of these items from year to year. **In order to avoid redundancy, SIP should be allowed to function as a third-party in order to satisfy reporting requirements**. Through SIP, we are already keeping the necessary records to address the issues the RWQCB is targeting and that should be acknowledged as in previous Ag Orders.

AD-3 Based on the tiered system in Order 3.0, we have also been granted regulatory relief due to the low-risk nature of growing wine grapes.

- Grapes are drip irrigated using low pressure, low flow emitters to deliver water slowly and efficiently, mitigating risk for fertilizer or pesticide runoff. No fertilizer applications occur during rainy season. Cover crops are also maintained to further lessen risk for run off.
- Wine grapes do not contribute to nitrogen leaching into ground water. Grapes do not require nearly 50 lbs/acre of nitrogen per season, the 2050 target limit for irrigated crops. The highest level of nitrogen applied at our ranches in 2019 was 32 lbs/acre, with most ranches closer to 20 lbs/acre.

Due to these factors, these levels of reporting from wine grape growers will provide no benefit to the RWQCB, while costing farmers time and money in order to create an these farm plans, as well as testing for and reporting these figures annually.

AD-4 In response to the Riparian offsets, there has been no cost assessment done regarding the loss of prime agriculture land. We have ranches in Santa Maria (Priority 1) areas that will be directly affected by the current proposal to establish riparian habitats with grasses, trees and shrubs. The loss of our planted acreage would be substantial, and the disregard for food safety is unacceptable. Creating a habitat adjacent to our production zones for vertebrates is counter-productive to vine growth and not realistic. In addition, the turnaround buffers that our equipment already requires are large. Removing a permanent crop, cover crop, and end posts will disturb soil further, increasing

AD-4 cont. the bare ground and thus raising the risk of erosion in sensitive areas.

AD-5 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 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,

Melissa Egger
Viticulturist/Technical Services Supervisor
Mesa Vineyard Management, Inc.
P: (805) 434-4100 | C: (805) 635-4196

Response to Comment AD-1

Thank you for your comment.

Response to Comment AD-2

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

Response to Comment AD-3

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

Response to Comment AD-4

This comment is responded to in Master Response 2.8.8.

Response to Comment AD-5

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

Letter AE: Dana M. Merrill, Mesa Vineyard Management, Inc. (June 18, 2020)

Letter AE

From: Dana Merrill
To: AgNOI, WB@Waterboards
Subject: Comments on proposed Ag Order 4.0
Date: Thursday, June 18, 2020 1:31:41 PM

EXTERNAL:

Dear Board,

The proposed 4.0 version of the Ag Order has a number of shortcomings. They are as follows:

AE-1 1. Overly complex beyond what is needed in many locations. As a winegrape grower, we apply very low rates of nitrogen fertilizer and virtually none of the chemicals you are seeking to detect with water testing

AE-2 2. Winegrapes are trending downward in nitrogen applied as lower amounts applied increase wine quality.

AE-3 3. The Vineyard Team has shown industry initiative to move beyond legal requirements for over 20 years now. The SIP Sustainable Certification program encouraged the goals you seem to seek with now purely regulatory approaches. You should continue to reward VT and SIP participation and I see nothing that continues that policy in the proposed Order 4.0

AE-4 4. New setback provisions will reduce farmable lands and many of the regulations are in conflict with what is now required for Food Safety requirements in border areas around farming fields.

AE-5 5. Provisions that disallow practices already in place to generate any positive compliance are disincentives to continue those practices, since now only new practices count for your compliance rules

AE-6 6. Basically you should deal with the true problem areas and concentrate effort there. And SIP Certified growers should continue to have an easier route to compliance than those who do not show that initiative.

Thanks for the chance to make comments,

Dana M Merrill
Mesa Vineyard Mgmt, Inc.

Sent from Mail for Windows 10

Response to Comment AE-1 through AE-2

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

Response to Comment AE-3

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

Response to Comment AE-4

This comment is responded to in Master Response 2.8.8.

Response to Comment AE-5

Comment noted.

Response to Comment AE-6

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

Letter AF: Patrick Headley, Hahn Family Wines (June 18, 2020)

Letter AF

From: Patrick Headley
To: AgNOI, WB@Waterboards
Cc: Paul Clifton; Tony Baldini
Subject: Hahn Family Wines Comments on Draft Ag Order 4.0
Date: Thursday, June 18, 2020 3:39:22 PM
Attachments: image001.png

EXTERNAL:

Dear Executive Officer Keeling,

AF-1 My name is Patrick Headley with Hahn Family Wines. Located in Monterey County, we farm roughly 1100 acres of premium wine grapes split between the Santa Lucia Highlands and the valley floor. I reviewed the current Ag Order 4.0 and had some concerns to share. We would like to address this draft order on how it does not incentivize adoption of practices that improve water quality through sustainability programs. But first a little history on our commitment to sustainability. In 2008, we piloted and adopted the SIP (Sustainability in Practice) certification program. It was new to us and required tons of record keeping, but the added value of transparency of practices in our operations was worth the time. We found that most of the practices required we had been executing all along and falls in line with the Ag Order 4.0. For example:

AF-2
- Filter strips, waddles and diversions for storm water are a must for farming in the Santa Lucia Highlands. Utilized in our erosion plan, they practically eliminate any surface water and or sediment from leaving our properties from storm water. On all our properties, as well as most viticulture areas, Irrigation tail water is a myth. While there may be some runoff risk involved in sprinkler frost control or furrow irrigation of the vines, we use fans for frost control and drip irrigation. With pressure compensating drip emitters, soil moisture sensors, ET sensors and pressure switches, prescribed irrigations based on the vine's predicted or actual water use is here and not going away.

AF-3
- Our Nutrient Budgets were originally adopted to eliminate loss of $ due to overuse of fertilizers and fall in line with the equations proposed in the Order. Our goal has always been to put back in what leaves the vineyard during harvest. I see that the 2050 goal for the Ag Order is 50# limit of N. Vineyards only receive an average of 15-30lbs of applied N annually which already meets the 2050 threshold. Now, if the "Applied – Removed" equation is used, it drops well below that limit or is a wash. Also, cover cropping, and minimal tillage help to sequester unused Nitrogen during the wet winter months.

AF-4
- Riparian zones and blue-line streams have always been identified and conserved through the SIP program. The SIP program takes it even farther with the creation of wildlife corridors to allow the unrestricted movement of fauna through properties and buffer zones on the edge of plantings.

AF-5 These are just a few examples of how our sustainability program (SIP Certified) runs in parallel with the current Ag Order 4.0 and the scope of sustainability programs in general outreach the AG Order 4.0 as they blanket the whole environment, workforce, companies and communities. I encourage staff to consider modifying this draft to allow third party sustainability certifications, like SIP Certified, in low risk vineyards as an alternative compliance.

Sincerely,

Patrick Headley
Director of Viticulture
Hahn Family Wines
O: + 1 831 678 9437
M: + 1 831 901 5249
www.hahnwines.com

HAHN FAMILY
WINES

Response to Comment AF-1

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

Response to Comment AF-2

This comment is summarized and responded to in Master Response 2.7.2.

Response to Comment AF-3

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

Response to Comment AF-4

This comment is responded to in Master Response 2.8.8.

Response to Comment AF-5

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

Letter AG: Soren Bjorn and Tannis Thorlakson, Driscoll's of the Americas (June 18, 2020)

Letter AG

From: Tannis Thorlakson
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Thursday, June 18, 2020 10:52:51 AM
Attachments: image001.png
Driscolls_Ag Order 4.0_Public Comment Letter_June 2020.pdf
Driscolls_Ag Order 4.0_Container Production Proposal Appendix_June 2020.pdf

EXTERNAL:

Regional Board,

Please find attached our public comments and associated supplemental documentation in response to the Agriculture Order 4.0 public comment period. Do not hesitate to reach out to me with any questions. Thank you,
Tannis

Tannis Thorlakson
Sr. Manager, Environment
M +1 (805) 264-3283
Driscoll's
Only the Finest Berries™



June 18, 2020

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

RE: Central Coast Water Board Agricultural Order 4.0

Central Coast Regional Water Quality Control Board,

AG-1

As a genetics-based berry marketer founded, owned and operated by long-term residents and farmers of the Central Coast, we would first like to reiterate our strong support for both environmental protection and agricultural viability in this region. Our commitment to environmental stewardship has led Driscoll's to strongly support legislation like California's Sustainable Groundwater Management Act of 2014 and near-term water quality solutions such as the Salinas Basin Agriculture Stewardship Group which provides safe drinking water to impacted communities. We also have a long history of research collaboration on water quality improvements, including work with the University of California Cooperative Extension on their CropManage nitrogen management tool and the Ventura and Monterey County Resource Conservation Districts on erosion management practices and nitrogen uptake curves, among others.

Driscoll's also believes in a vibrant agriculture sector in the Central Coast. The Central Coast's rich soils, ideal climate and innovative agricultural community makes it one of the best regions for fruit and vegetable production in the world. Collectively, we produce almost 90% of the United States' strawberries and over 70% of leafy greens. In Monterey County alone agriculture contributes over $8.1B to the economy and employs one in four workers (Monterey County Ag Commissioner, 2014).

AG-2

We also see agriculture in the Central Coast changing rapidly in response to a variety of factors, including increasing labor, land and input costs. These changes have encouraged new innovations. One we are particularly excited about, as we detail below, is the use of container production to improve the precision of water and nutrient application while also solving for labor challenges. This innovation in berry growing systems holds particular promise for addressing water quality challenges we face in the Central Coast.

AG-3

We believe that our commitments to environmental stewardship, agricultural vitality and growing system innovations do not need to be at odds here in the Central Coast. There is opportunity to make substantial, quantifiable improvements in water quality while allowing agriculture to continue to thrive. In particular, we highlight five areas in the proposed regulations that we encourage additional consideration: 1) Incorporating new technologies including container production, 2) Potential unintended consequences of biomass removal, 3) N removal research, 4) Plastics on slopes and 5) Operational setbacks for permanent and semi-permanent crops. We welcome continued engagement with the Staff and Board on these topics.

1

1. Incorporating New Technologies: The Opportunity of Container Production

As your Board has highlighted, there is a substantial need to incentivize new technologies and innovation to reach our joint water quality objectives. We believe effective management of container production can provide a unique opportunity to improve water quality. Below we summarize the technology, opportunity for improving water quality and an overview of our proposal to incorporate container production into Ag Order 4.0. Additional details are provided in the Appendix.

AG-4

Technology Background: Container production involves the use of pots to grow plants above ground. Agricultural operators have used container production successfully across the globe for decades to optimize plant growth, increase management precision, reduce water use and solve for labor challenges. More recently, container production has expanded in the Central Coast Region for berries, among other crops.

When pots sit on the ground they are functionally equivalent to in-soil production. However, container production presents an opportunity to capture and treat or reuse any potential excess water and nutrients moving beyond the root zone using drain collection gutters, effectively halting irrigation discharge.

Water Quality Opportunity: Container production, unlike in-soil agriculture, allows for the direct capture of all irrigation discharge. Examples of ways this captured drain water can be managed to address water quality objectives include:

AG-5

1. **Recirculation:** Reusing the captured irrigation drain water on the same plants, resulting in both water and nutrient savings.
2. **Reutilization:** Reusing the captured irrigation drain water on another crop to allow nutrients that move beyond the root zone of Crop A to be utilized by Crop B.
3. **Treatment:** The use of a water treatment system to extract nitrogen from irrigation drain water.

Although very exciting, recirculation and reutilization do not work for every operation based on source water quality, ranch set-up and plant pathogen management, among other factors. Each ranch must use the drain water strategy that makes the most sense for their unique situation.

Recommendation: We have worked to develop a science-based, numeric approach to incorporating the capture and treatment and/or reuse of container production irrigation drain water into the proposed regulation. This proposal has been reviewed by Staff. Under this proposal, container production operators would meet all the same requirements as other operators, but they would be able to meet the N discharge limits either through the A-R proxy equation or through direct measurements of the N being discharged into the groundwater. This proposed change would encourage the use of innovative water drainage reuse and recycling methods, as outlined above.

AG-6

This proposal attempts to be flexible enough to fit into any final Ag Order 4.0 framework. We also worked to ensure the language is written in such a way that it could incorporate future technologies for N drain management to allow for continued innovation. A summary of our proposal:

No Drain Capture: If a container operation does not capture drain water, they fit under Ag Order 4.0 as adopted.

Drain Capture: As Appendix A of the proposed regulation highlights, the Applied – Removed equation in Part 2, Section C.1 of the draft regulation was developed as a proxy for discharge to

Note: Citations available upon request 2

AG-6 cont.

groundwater due to the difficulty of measuring actual discharge below the subsurface (Appendix A, pg 70). In contrast, container production that captures drain can be regulated on actual N measurements in place of the A-R proxy equation.

For container production systems that capture drain, we propose:

- Meeting the N limits outlined in Table C.1-2 through actual reporting of total N load to the system.
- Reporting N concentration and volume to calculate the total N load in place of reporting N Applied and Removed.[1]
- Using the acreage of the full production system (area of container production with zero discharge + area of discharge) to calculate the N load as this is consistent with the net effect to the basin.
- Requiring all container production systems that capture drain to come into compliance with N limits within 24 months, regardless of what groundwater phase the ranch is in. This would increase the speed at which container production operations met the N discharge requirements while allowing for farm retrofits and learnings.

All other Ag Order 4.0 requirements (stormwater, riparian, etc.) would apply as written, as container operations are still field-based irrigated agricultural operations.

This new technology presents substantial opportunity to sustainably manage, treat and improve agricultural runoff to meet water quality objectives over time while allowing agriculture to remain viable in the Central Coast. See the Appendix for the full proposal.

AG-7

2. Unintended Consequences of Biomass Removal in Soil Production Systems

We recognize the need to reduce N application to achieve water quality objectives in the Central Coast. However, we are quite concerned about the potential unintended consequences of the ultimate 50 pound Applied – Removed limit on soil health and biomass removal in soil production systems. To contextualize this concern, we will walk through the agronomic implications of the 50 pound A-R discharge limit for raspberries.

AG-8

Raspberries take up roughly 150-175 pounds of N in a single growth cycle (Cahn 2018, internal research).[2] Two-thirds of this N is stored in the canes and leaves, with between 25 and 75 pounds removed in the fruit via harvestable yield.

In 2050, the A-R calculations would be as follows:

- Discharge limit: 50 lbs N / acre
- $R_{Harvest}$: 50 lbs N / acre (taking middle of range provided above)
- Allowable N applied ($A_{Fertilizer}$ + $A_{Irrigation}$): 100 lbs N / acre (50 lbs N discharge limit + 50 lbs N $R_{Harvest}$)

[1] We believe this is consistent with the draft language in Section C.1 of the proposed order and the ESJ Order.
[2] Note: These numbers are based on preliminary analyses and do not fully incorporate the range of varieties, regions and management approaches.

Note: Citations available upon request 3

AG-8 cont.

Raspberry growers would be allowed to apply a total of 100 pounds of N via fertilizer and irrigation water in 2050, but the plant requires at least 150 pounds of N just to build its plant structure without considering fertilizer and uptake efficiencies. This would make the farming of raspberries agronomically infeasible in 2050 unless all cane biomass was removed from the field.

Cane biomass (the leaves, woody stem and branches of a raspberry, blackberry or blueberry bush) is currently mulched into fields as a best management practice for healthy soils. The State of California currently will pay growers $398 per acre for applying mulch through the California Healthy Soils Initiative (Health Soils Request for Grant Applications, pg 31). In addition, research has shown that the incorporation of mulch with C:N ratios above 25-30:1 actually decrease available N (Geisseler 2019, Hannam et al 2014). From our initial analyses, cane biomass has a C:N ratio of between 28 and 37:1.

AG-9

Mulching high carbon biomass back into the soil for improved soil health would halt entirely in response to the way Ag Order 4.0 draft regulations are currently written. Instead, the biomass would be landfilled, burned or composted. Current composting facilities would be unable to process the volume of biomass that would be generated with the proposed regulations. Even if additional composting facilities were developed, an oversupply of compost in the region could lead to undesirable health impacts and the potential over-application of compost, leading to negative water quality impacts. According to the EIR conducted by the State Water Quality Control Board, composting has "potentially significant and unavoidable" air quality and greenhouse gas impacts (Draft Supplemental EIR for Commercial Composting Operations, State Water Resources Control Board, 2020, pg 11). Burning of biomass also creates multiple local health concerns, including a significant increase in premature mortality (Sigsgaard et al 2015). The health impacts of both composting and burning would disproportionately affecting low-income and disadvantaged communities. Finally, disposing of biomass in landfills would put an innumerable burden on our already constrained coastal landfills and also violate the State's mandate to divert 75% of organic waste from landfills by 2025 (SB 1383, https://www.calrecycle.ca.gov/climate/slcp).

AG-10

Recommendation: We strongly encourage the Regional Board to apply a biomass discount factor to plant biomass mulched back into the field as a part of the A-R regulations. Similar to the compost factor, the biomass discount factor could estimate the amount of N that is broken down in the first year from different plant biomass types based on C:N ratios. This would account for the fact that much of the N in biomass is not available to the crop and is consistent with the best available science.

AG-11

3. N Removal Research

The draft regulations require individual dischargers to develop their own N removal values for both crop material and biomass following the approved method provided in the Monitoring and Reporting Program if a pre-approved value is not available (Draft Order, pg 26). Raspberry, blackberries and blueberries do not have pre-approved N values for crop material and biomass.

AG-12

Recommendation: We request that shippers be allowed to develop N crop material and biomass removal values on behalf of our raspberry, blackberry and blueberry growers. Biomass removal values should be based on a per acre value as opposed to a by weight coefficient, as weighing large amounts of biomass is infeasible and provides limited additional value. Growers could then reference these values when submitting paperwork without having to conduct their own individual testing on farm. This approach would result in robust N removal values, a more streamlined process for Staff and a reduction

Note: Citations available upon request 4

AG-12 cont. of costs and paperwork for growers. We have trained agronomists on staff that can work closely with the Executive Officer to ensure removal coefficients are developed using proper sampling techniques.

4. Plastics on Slopes

AG-13 We support the Staff's desire to decrease erosion impacts from agriculture and recognize that field plastics can contribute to erosion events. The current draft regulations proposes two ways in which impermeable surfaces (use of field plastics) will be regulated. First, all ranches with impermeable surfaces must not discharge more stormwater than areas with permeable surfaces, up to a certain sized storm (Draft Order, 2.C.4-7 and 2.C.4-8, pg 37). Second, impermeable surfaces up between October 1 and April 30 on slopes over 5% must have a sediment and erosion control plan certified by a qualified professional (Draft Order 2.C.4-9, pg 37).

AG-14 ***Recommendation:*** We strongly urge the Board to return to the original 10% slope as the trigger for requiring certified erosion plans by qualified professionals that was proposed in the March 2019 Staff proposal. We urge the return to the 10% slope qualifier for a number of reasons.

AG-15 First, this proposed change from 10% to 5% would disproportionately affect organic acres. From Staff's analysis, 32% of berry acres would be impacted by the 5% slope requirement (Appendix A). From our internal analysis, almost **two thirds** of the area impacted would be organic acreage, despite the fact that organic acres only make up a small portion of total berries in the Central Coast. Given the already substantial requirements organic growers must comply with, we are concerned that these additional requirements may force organic acres out of production.

AG-16 Second, we are concerned of the unintended consequences of requiring a certified erosion control plan on crop rotation in the Central Coast. Certifying an erosion control plan will likely take months to put into place. With crop rotation, growers typically move on and off a ranch over the course of a single year. The logistical challenge of obtaining a certified plan in the period of typical crop rotations would likely make crop rotation infeasible, as non-plastic users would have no incentive to work with berry growers on certified plan development. Crop rotation is widely recognized as an environmental best management practice as it reduces pest pressures and improves nutrient efficiency, among other benefits (Subbarao et al., 2007; Tilman et al., 2002). We fear that by requiring a certified erosion plan, the proposed regulations may inadvertently increase pesticide use through dis-incentivizing crop rotation.

AG-17 Finally, we believe the strong language limiting discharge from all impermeable surfaces already provides substantial regulatory oversight for all ranches using plastics. Returning to a 10% slope value for additional regulations would not mean that ranches at 5% slope are left unregulated. They would still be required to reduce erosion and storm water runoff through parts C.4.7 and C.4.8 of the proposed regulations. Instead, the move to 10% slope would reduce the logistical challenges of certifying plans within a crop rotation while ensuring erosion issues are still addressed.

Note: Citations available upon request 5

5. Operational Riparian Setbacks for Permanent and Semi-Permanent Crops

AG-18 We urge the Board to consider delaying the October 1, 2022 deadline for permanent and semi-permanent crops to comply with the Riparian Operational Setbacks established in Section C.5.4. Many crops in the Central Coast have lifecycles of three or more years (e.g. wine grapes, blackberries, blueberries). Growers have made substantial investments, often tens of thousands of dollars or more per acre, in establishing these semi-permanent and permanent crops. At the time of their establishment they were in full compliance with the regulatory requirements. The forced removal of hundreds, if not thousands, of acres of semi-permanent and permanent crops before their useful life ends would result in a substantial cost to growers.

AG-19 ***Recommendation:*** We encourage the Board to extend the riparian operational setback deadline for permanent and semi-permanent crops to the end of the crop's useful life.

AG-20 To conclude, we want to reiterate our commitment to environmental stewardship and agricultural viability in the Central Coast. We believe the regulations would be substantially improved by considering the recommendations highlighted in this letter. We would welcome the opportunity to engage with the Board and Staff further on pursuing the topics proposed here. Thank you for your service to our community and the environment,

Soren Bjorn
President, Driscoll's of the Americas

Tannis Thorlakson, PhD
Senior Manager Environment, Driscoll's of the Americas

Note: Citations available upon request

6

AG-21

Incorporating Container Production Drain Capture Proposal

Goal of Proposal: To support surface and groundwater nitrogen water quality objectives by incorporating new irrigation drain management technologies in Agriculture Order 4.0, including the capture of N moving beyond the root zone.

Technology Background: Container production involves the use of pots to grow plants above ground. Container production has been used successfully by agricultural operators across the globe for decades to optimize plant growth, increase management precision, reduce water use and solve for labor challenges. More recently, container production has expanded in the Central Coast Region for berries, among other crops.

When pots sit on the ground they are functionally equivalent to in-soil production, with excess water and nutrients potentially draining beyond the root zone into the sub-surface. However, container production presents an opportunity to capture and treat or reuse the water moving beyond the root zone through the use of drain collection gutters, effectively halting irrigation discharge.

Examples of ways this captured drain water could be managed to address water quality objectives:

1. **Recirculation:** Reusing the captured irrigation drain water on the same plants, resulting in both water and nutrient savings (Figure 1).
2. **Reutilization:** Reusing the captured irrigation drain water on other crops to allow nutrients that move beyond the root zone of Crop A to be utilized by Crop B (Figure 2).
3. **Treatment:** The use of a water treatment system to extract nitrogen from irrigation drain water (Figure 3).

Although very exciting, recirculation and reutilization do not work for every operation based on source water quality, ranch set-up, and plant pathogen management, among other factors. Operators must have the flexibility to choose the optimal drain water management strategy for their operation while meeting the outlined requirements of this proposal.

Proposal: This proposal outlines how Ag Order 4.0 can incorporate the capture and treatment and/or reuse of container production drain water to encourage this advancement in water management technology. Without regulatory adaptation, adoption of these technologies will likely be slow due to the substantial cost and increased complexity of these drain capture and treatment systems. This proposal attempts to be flexible enough to fit into any final Ag Order 4.0 framework.

No Drain Capture: If a container operation does not capture drain water, they fit under Ag Order 4.0 as adopted.

Drain Capture: As Appendix A of the draft regulation highlights, the Applied – Removed equation in Part 2, Section C.1 was developed as a proxy for discharge to groundwater due to the difficulty of measuring actual discharge below the subsurface (Appendix A, pg 70). In contrast, container production that captures drain can be regulated on the actual N measurements in place of the A-R proxy equation. All other Ag Order 4.0 requirements (stormwater, riparian, etc.) would apply as written, as container operations are still field-based irrigated agricultural operations.

1. **Phasing:** Once growers begin capturing drain from container production, they begin reporting as described in Section 3 below. They have 24 months from the start of drain capture to meet

1

AG-21 cont.

applicable limits to allow for farm retrofits and learnings. Drain Capture Proposal requirements apply to all ranches capturing drain, regardless of location.

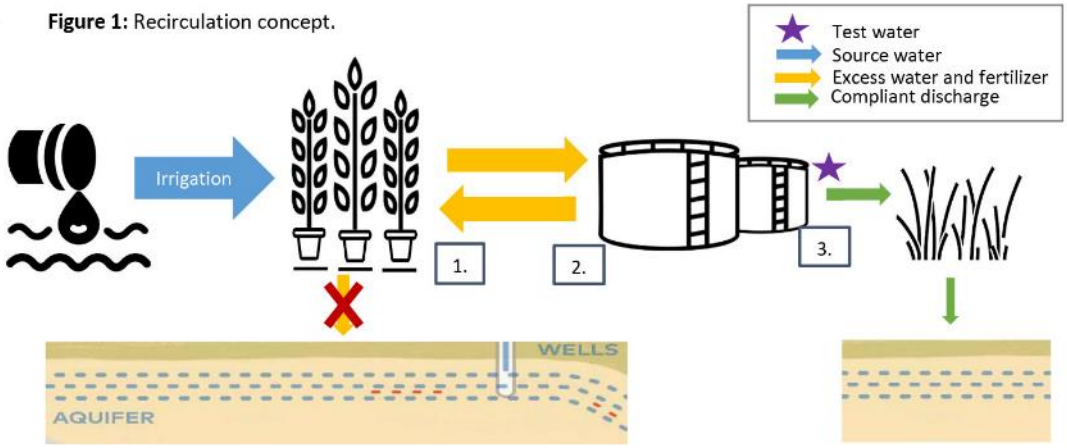
2. **Quantifiable Milestones & Time Schedule:** Container operators capturing drain would need to meet numeric limits set out in the Ag Order 4.0 regulations. Nitrogen discharge limits would depend on where water is going, to allow for flexibility in technology innovation:
    a. Discharge to Ground Water: N load must meet limits and timelines set out in Table C1-2.
    b. Discharge to Surface Water: Nitrogen surface water concentration must meet surface water limits and timelines set out in Table C2-1.
    c. Use on Another Crop ('Crop B'):
        i. Crop B assumes all N in the water as part of their 'Applied' Nitrogen. Crop B uses both Crop A and Crop B acreage to calculate any nitrogen load limits, as there has been zero discharge to groundwater on Crop A acreage.
        ii. Crop B can be on the same ranch or on another ranch, but Crop A and Crop B are reported together as a single entity.
3. **Monitoring and Reporting:**
    a. Report:
        i. Discharge to Ground Water: Volume, N concentration, acres
        ii. Discharge to Surface Water: N concentration
        iii. Use on Another Crop: Acres (Crop A + Crop B), total N applied and removed (Crop B), where total N applied includes N from Crop A
    b. Monitor: Given that drain concentrations vary substantially based on weather and vegetative cycles, a monitoring program would need to be able to capture this variability.
        i. Frequency: Minimum of 3 / year, with at least one measurement conducted for both the vegetative and fruiting stages of the plant.
        ii. Results can be averaged across multiple samples to determine compliance.
        iii. Sampling location:
            1. Groundwater and Surface Water: Post-treatment
            2. Another Crop: Water being transferred to Crop B
    c. Exempt from all other Section C-1 reporting, as these requirements do not apply to operations that are not directly discharging into groundwater.
4. **Incentives if Capture Drain:**
    a. No Total Nitrogen Applied, irrigation and nutrient management plan or other Section C-1 reporting required, as reporting is based off actual N discharge.
    b. Calculate any per acre limit based on crop acres + acres used for mitigation to incentivize mitigation areas.

Opportunity for Water Quality: Container Production drain capture allows for individual ranches to effectively halt irrigation discharge into surface and groundwater. This new technology presents substantial opportunity to sustainably manage, treat and improve agricultural runoff to meet water quality objectives over time while allowing agriculture to remain viable in the Central Coast.

2

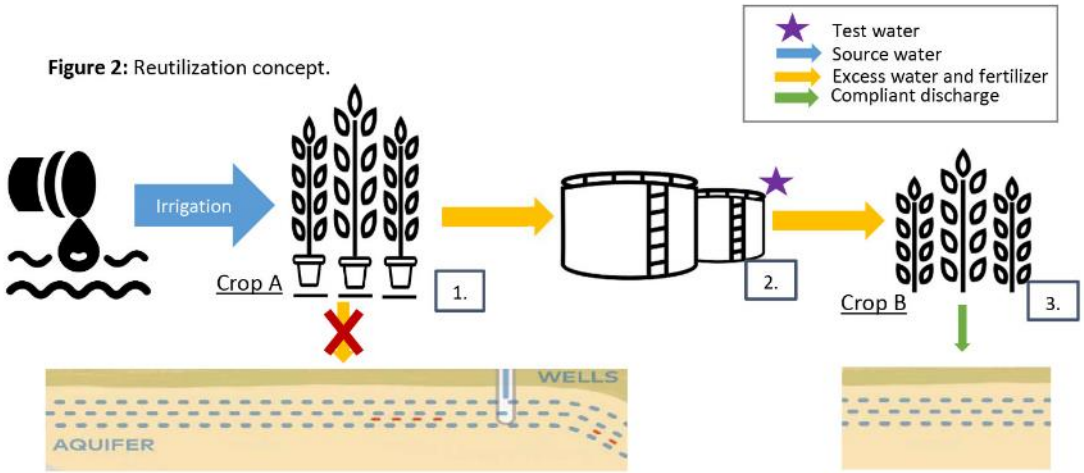
AG-21
cont.

Figure 1: Recirculation concept.



1. Irrigation drain is captured by gutters, basically eliminating irrigation discharge in the containerized crop field
2. ~90% of the captured drain is reused back on the same field
   - 10% of the drain (or ~2.5% of the original irrigation amount) cannot be recirculated to avoid sodium and chloride build up (salts occur naturally in source water)
3. Non-recirculated drain is tested then put onto a cover crop to soak into ground

Figure 2: Reutilization concept.



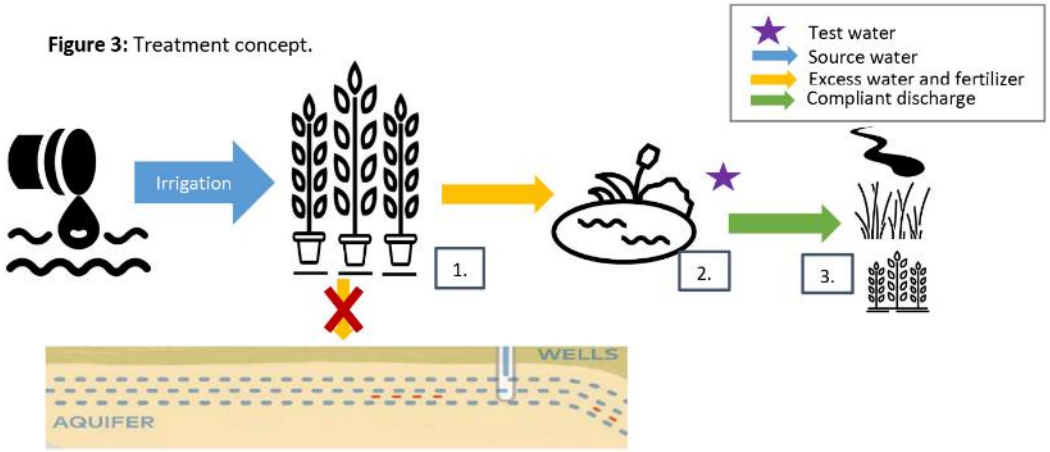
1. Irrigation drain is captured by gutters, basically eliminating irrigation discharge in the containerized crop field (Crop A)
2. Drain is tested for N concentration and volume transferred is recorded
3. 100% of drain is used on neighboring crop that could a) be on the same ranch or b) be on a neighboring ranch (Crop B)

Image sources Noun Project: Becris, Brand Mania, Andriwidodo, Bomsymbols, Hamish, Sarah, Nikita Kozin

3

AG-21 cont.

Figure 3: Treatment concept.



1. Irrigation drain is captured by gutters, basically eliminating irrigation discharge in the containerized crop field
2. Drain is run through a treatment system (e.g. bioreactor)
3. Compliant drain is tested and released into surface water, onto a cover crop or onto another crop

Image sources Noun Project: Becris, Brand Mania, Andriwidodo, Bomsymbols, Hamish, Sarah, Nikita Kozin

4

Response to Comment AG-1

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

Response to Comment AG-2

Thank you for your comment.

Response to Comment AG-3

Thank you for your comment.

Response to Comment AG-4 through AG-10

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

Response to Comment AG-11

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

Response to Comment AG-12

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

Response to Comment AG-13 through AG-17

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

Response to Comment AG-18 through AG-19

This comment is responded to in Master Response 2.8.8.

Response to Comment AG-20

Thank you for your comment.

Response to Comment AG-21

Thank you for your comment. This comment is summarized and responded to in Master Response 2.3.9.

Letter AH: Adam Franscioni, Gary Franscioni, Inc. (June 19, 2020)

Letter AH

From: Adam
To: AgNOI, WB@Waterboards
Cc: kris@vineyardteam.org
Subject: Comments on Draft Ag Order 4.0
Date: Friday, June 19, 2020 4:01:53 PM

EXTERNAL:

Dear Executive Officer Keeling,

AH-1 My name is Adam Franscioni and I farm 50 acres of wine grapes and 27 acres of Lemons in Soledad, California. We planted Rosella's Vineyard in 1996 and citrus in 1992. My partners and I employ 40 workers year-round on our vineyards and additional 45 workers on our orchard. I am a fourth-generation family farmer in Monterey County.

AH-2 Having farmed these properties for close to a decade, I know the importance of tracking and maintaining records of fertilizers and pesticides we input into our ranches. We currently report all pesticides and the rate used to the Monterey Agriculture Commissions office and Department of Pesticide Regulations. We use Toxicity class III chemicals for pest control as we rely on our beneficial insects to do most of the work in controlling pests. In addition, we perform routine training and re-training for all person(s) who handle pesticides, as well as, applying all products in accordance with Monterey Ag Commissioner and Department of Pesticide regulations. This is all done to minimize any run-off into ground and surface water. Furthermore, we would like to add that vineyards currently meet the 2050 Nitrogen Loading threshold and should be exempted from monitoring and reporting related to groundwater. We farm with the best practices and are certified members of Sustainable in Practice, which Ag Order 4.0 would duplicate our existing reporting. Ag Order 4.0 would be extremely expensive and burdensome to an operation of our size and scope.

AH-3

AH-4 We are concerned that the proposed reporting regulations in Ag Order 4.0 does not differentiate between ranch size, daily operations, crops produced, location, and other important factors. In addition, we feel we are already heavily regulated and the requirements in Ag Order 4.0 are duplicative and overly onerous.

AH-5

AH-6 We hope that you will take our letter into consideration as you develop your final recommendation. We appreciate your reading this letter and please feel free to contact us should you have further questions or need explanations.

Regards,

Adam Franscioni

Gary Franscioni Inc.

32070 River Road

Soledad, CA 93960

Response to Comment AH-1

Thank you for your comment.

Response to Comment AH-2

Thank you for your comment.

Response to Comment AH-3

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.2.2; and 2.3.10.

Response to Comment AH-4

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

Response to Comment AH-5

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

Response to Comment AH-6

Thank you for your comment.

Letter AI: Adam Franscioni, Franscioni Lemon Company (June 19, 2020)

Letter AI

From: Adam
To: AgNOI_WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Friday, June 19, 2020 4:05:48 PM

EXTERNAL:

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

Dear Executive Officer Keeling,

AI-1 My name is Adam Franscioni and I farm 102 acres of Lemons in Soledad, California. We planted citrus in 1992. My partners and I employ 45 workers on our orchard. I am a fourth-generation family farmer in Monterey County.

AI-2 Having farmed these properties for close to a decade, I know the importance of tracking and maintaining records of fertilizers and pesticides we input into our ranches. We currently report all pesticides and the rate used to the Monterey Agriculture Commissions office and Department of Pesticide Regulations. We use Toxicity class III chemicals for pest control as we rely on our beneficial insects to do most of the work in controlling pests. In addition, we perform routine training and re-training for all person(s) who handle pesticides, as well as, applying all products in accordance with Monterey Ag Commissioner and Department of Pesticide regulations. This is all done to minimize any run-off into ground and surface water. Furthermore, we would like to add that orchards currently meet the 2050 Nitrogen Loading threshold and should be exempted from monitoring and reporting related to groundwater. We farm with the best practices which Ag Order 4.0 would duplicate our existing reporting. Ag Order 4.0 would be extremely expensive and burdensome to an operation of our size and scope.

AI-3

AI-4 We are concerned that the proposed reporting regulations in Ag Order 4.0 does not differentiate between ranch size, daily operations, crops produced, location, and other important factors. In addition, we feel we are already heavily regulated and the requirements in Ag Order 4.0 are duplicative and overly onerous.

AI-5

AI-6 We hope that you will take our letter into consideration as you develop your final recommendation. We appreciate your reading this letter and please feel free to contact us should you have further questions or need explanations.

Regards,

Adam Franscioni

Franscioni Lemon Company

32070 River Road

Soledad, CA 93960

Response to Comment AI-1

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

Response to Comment AI-2

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

Response to Comment AI-3

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

Response to Comment AI-4

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

Response to Comment AI-5

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

Response to Comment AI-6

Comment noted.

Letter AJ: Adam Franscioni, Leon Farms LLC (June 19, 2020)

Letter AJ

From: Adam
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Friday, June 19, 2020 4:09:01 PM

EXTERNAL:

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

Dear Executive Officer Keeling,

AJ-1 My name is Adam Franscioni and I farm 50 acres of wine grapes and 15 acres of avocados in Soledad, California. We planted Sierra Mar Vineyard in 2008 and avocados in 2010. My partners and I employ 40 workers year-round on our vineyards and additional 45 workers on our orchard. I am a fourth-generation family farmer in Monterey County.

AJ-2 Having farmed these properties for close to a decade, I know the importance of tracking and maintaining records of fertilizers and pesticides we input into our ranches. We currently report all pesticides and the rate used to the Monterey Agriculture Commissions office and Department of Pesticide Regulations. We use Toxicity class III chemicals for pest control as we rely on our beneficial insects to do most of the work in controlling pests. In addition, we perform routine training and re-training for all person(s) who handle pesticides, as well as, applying all products in accordance with Monterey Ag Commissioner and Department of Pesticide regulations. This is all done to minimize any run-off into ground and surface water. Furthermore, we would like to add that vineyards currently meet the 2050 Nitrogen Loading threshold and should be exempted from monitoring and reporting related to groundwater. We farm with the best practices and are certified members of Sustainable in Practice, which Ag Order 4.0 would duplicate our existing reporting. Ag Order 4.0 would be extremely expensive and burdensome to an operation of our size and scope.

AJ-3 We are concerned that the proposed reporting regulations in Ag Order 4.0 does not differentiate between ranch size, daily operations, crops produced, location, and other important factors. In addition, we feel we are already heavily regulated and the requirements in Ag Order 4.0 are duplicative and overly onerous.

AJ-4 We hope that you will take our letter into consideration as you develop your final recommendation. We appreciate your reading this letter and please feel free to contact us should you have further questions or need explanations.

Regards,

Adam Franscioni

Leon Farms LLC

23799 Monterey Salinas, Hwy #37

Salinas, CA 93908

Response to Comment AJ-1

Thank you for your comment.

Response to Comment AJ-2

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

Response to Comment AJ-3

This comment is summarized and responded to in the following Master Responses: 2.9.1; 2.1.7; 2.1.4; and 2.2.2.

Response to Comment AJ-4

Thank you for your comment.

Letter AK: Andy Weyrich, Mesa Vineyard Management (June 19, 2020)

Letter AK

From: Andy Weyrich
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Friday, June 19, 2020 3:04:25 PM
Attachments: Ag Order Letter Andy Weyrich .pdf

EXTERNAL:

Please find a letter attached with my comments on the draft Ag Order.

Andy Weyrich
Mesa Vineyard Management
(831) 998-0356 Direct
(805) 434-4100 Main Office
Mesavineyard.com

6/19/2020
Matthew T. Keeling, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 94301

Dear Executive Officer Keeling,

AK-1 I am a vineyard manager in San Luis Obispo and Monterey counties. I currently manage around 1,800 acres of wine grapes combined on nine different properties from San Miguel to the Gonzales area. The properties that I over see are primarily family owned operations from very small (17 acres) to larger (~1,000 acres.) On all these vineyards we farm to minimize the impact to the environment and water quality. Eight of these properties are sip certified or plan on being so. I live in Paso Robles with my wife and four children and we spend much of our time enjoying the outdoors of the central coast. I feel it is my responsibility to do my part in protecting our groundwater for my family and neighbors in addition to being the key to my livelihood.

AK-2 On all of the properties I manage we utilize nutrient budgeting, prescription applications of all nutrient and pesticide applications. We utilize cover crops, erosion control actions, drip irrigations and minimal fertilizer applications. The Sip certified vineyards take everything to the next level to evaluate and improve as many practices as possible.

AK-3 Under the current proposed Ag Order vineyards are being held in group with other crops that do not compare. All of the vineyard I manage have Nitrogen applications well below the 50 pound applied goal. We also drip irrigate as well as use smart technology to monitor soil moisture and ET levels to monitor fertigation soil penetration. Wine grapes barely move the scale on nutrient and water applications, although the reporting and monitoring that is being proposed will be difficult and truly excessively costly for the growers to comply with. Wine grapes are very low risk, and very low Nitrogen users when compared to other crops and should be separated out. Vineyards that are sip certified are already doing great things to improve where they can with water quality and nutrient budgeting, they should be rewarded for doing so with some benefit in the Ag Order. The stewardship that SIP certified growers have already shown success and should be rewarded, such as exempt from such excessive reporting or some sort of a tiered system. Additionally, not double reporting if you are reporting water and Nitrogen use on an annual basis in the Sip program. The order is so complex I question if winegrape growers will be able to comply with all of the requirements.

AK-4 The draft does not consider the operation of wine grapes but only where it is located. The proposed buffer zones with streams and riparian zones will have a tremendous financial impact on many property owners and growers.

AK-5 We want to protect the water of the central coast but with a reasonable order for our crop. I would like to see the order modified for vineyards as they are so low risk. Secondly, I would say the Sip program has been a success and should be rewarded so for its efforts with reduced regulations for those that maintain the certification.

AK-6

Sincerely,

Andy Weyrich
Mesa Vineyard Management
PO Box 3771
Paso Robles, Ca 93447
(831) 998-0356

Response to Comment AK-1

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

Response to Comment AK-2

This comment is noted.

Response to Comment AK-3

This comment is summarized and responded to in the following Master Responses: 2.1.4.; 2.2.2; and 2.3.5.

Response to Comment AK-4

This comment is responded to in Master Response 2.8.8.

Response to Comment AK-5

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

Response to Comment AK-6

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

Letter AL: Bob Tillman, Alta Colina Vineyard Winery (June 19, 2020)

Letter AL

From: Bob Tillman
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Friday, June 19, 2020 5:54:29 PM

EXTERNAL:

Dear Waterboard,

AL-1 I applaud your efforts to protect California's water. It is critical to the state's future. In fact, for that little bit of California that I own and farm, I am far more passionate about preservation than you will ever be. Not to disrespect your approach, but all of my skin is in this game--motivation is high. Let me describe our situation here at Alta Colina Vineyard:

AL-2 --We have 31.5 acres of wine grapes. We also have 98.5 acres of oak woodland surrounding the vineyard. We leave it to nature, except for the ~1 acre around the winery building where we try to maintain a "park-like environment". (Description courtesy of Cal Fire--meaning that brush is cleared and low tree branches are pruned.) In time all grapes grown on Alta Colina Vineyard will be consumed in Alta Colina wines, made on the property. At the present time, about 40% of the crop is sold to other Paso Robles wineries.

AL-3 --We drip irrigate. Last season I applied 0.18 acre-feet per acre. There is zero run off. Our top soil is eroded rock (classified as loam), about 8"--18" deep, full of rocks, sitting on fractured shale. The 3.5"/hour thunderstorm that Paso experienced in July a few years back did not create any erosion on my property. This soil profile drains incredibly well. This attribute also ensures that any salt buildup from irrigation is easily removed by winter rains.

AL-4 --We have been no-till in the row middles since the beginning--16 years ago. Until this season we have utilized the Clemens weed knife under the vines, which does slice through the soil, although it does not turn the dirt over--kind of no-till. Starting this year, we have gone no-till under the vines as well. Utilizing the native grasses as the cover crop provides almost immediate sprouting after the first rain (erosion control) and early going to seed and die-back before any irrigation. The future will be 100% no-till.

AL-5 --We farm organically, although we are not certified. This means no synthetic inputs to the vineyard, although I reserve the right to deviate from this approach should we suffer a serious pest attack. In 2019, we did use a synthetic pesticide against a leaf hopper infestation through the drip system--thinking back, this also happened about 5 years back. My daughter lives on the vineyard--I am highly motivated to maintain a poison-free environment.

AL-6 --It has been years since we applied any fertilizer other than compost. The compost comes at about 1-1-1, hardly a threat of Nitrogen contamination to the ground water. We do leaf samples at fruit set, and find that our vines are properly nourished.

AL-7 --There are no riparian areas within miles of my vineyard. I wish there were--that would mean there was water in the neighborhood.

AL-8 --Our water source is located 0.5 miles from the vineyard, and also supports our winery. I have a water depth monitor on the well, and test the chemistry about every 5 years. So far,

AL-8 cont. there has been virtually no significant change in the water chemistry during the 16 years of usage. The water level in March (i.e., per-season) has been 100' +/- 5' for 16 years--knock on wood, every winter has fully recharged the ground water on our ranch. Given that 75% of our acreage is oak woodland, and given the permeability of our soil, and given the abstemious approach to irrigation, I estimate that we use about 3% of the rainfall collected on the property in our vineyard irrigation.

AL-9 --I am a one-man administrative show. There is no one to delegate extensive reporting/monitoring jobs to.

AL-10 With those points given, I would like to comment on the proposed AG Order 4.0:

AL-11 --The length and complexity of the proposed order is mind boggling. I can't imagine having time to digest all the stuff you guys have crammed into it.

AL-12 --No doubt you have to deal with bad actors--but putting all this onto the back of sole operator vineyard owners is down right shocking. I use almost no water, apply almost no Nitrogen, have no riparian area within miles, and certainly create no run-off under any scenario that I can think of. Why is there no scaling of requirements based on potential/actual problems created?

AL-13 --There are multiple times when multiple reports/tests must be created. Without hiring someone to chase all this, I will be very hard pressed to keep track of the blizzard of deadlines. How is all this paperwork going to improve water quality?

AL-14 --You are creating crony capitalism opportunities left and right. Excuse my cynicism, but did various laboratories/consultants assist you in writing this proposed order? Grape growing is not a high margin business--I cannot afford to pile more (extraneous) expenses onto my cost structure.

AL-15 --Who pays for your own operations? If you are counting on future fees from grape growers, best to adjust your planning downwards--many will simply find something else to do when faced with the consequences of this proposed order.

AL-16 --No doubt the die is cast on this process--you are merely dotting i's and crossing t's. However, applying a "one size fits all" (aimed at your worst offenders) at all the growers will be extraordinarily onerous to small operators. We simply lack the management bandwidth and money to cope with all these requirements.

AL-17 I want to believe that you are honestly motivated to improve California's future. However, the tone and content of this proposed order feels more like an attack on agriculture than an attempt to help us improve. If there is anyone in your organization that would like to walk a few hours in my boots, to get a sense of what this feels like on the receiving end, I would welcome the opportunity to host him/her/them on my vineyard.

Sincerely,

--
Bob Tillman
Owner/Grower
Alta Colina Vineyard & Winery
www.altacolinawine.com
Paso Robles, CA

Response to Comment AL-1

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

Response to Comment AL-2

This comment is noted.

Response to Comment AL-3

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

Response to Comment AL-4

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

Response to Comment AL-5

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

Response to Comment AL-6

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

Response to Comment AL-7

This comment is responded to in Master Response 2.8.8.

Response to Comment AL-8

This comment is noted.

Response to Comment AL-9

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

Response to Comment AL-10

This comment is noted.

Response to Comment AL-11

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

Response to Comment AL-12

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

Response to Comment AL-13

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

Response to Comment AL-14

This comment is noted.

Response to Comment AL-15

This comment is noted.

Response to Comment AL-16 through AL-17

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

Letter AM: David Estrada, Clos Tita Winery (June 19, 2020)

Letter AM

From: Dave
To: AgNOI_WB@Waterboards
Subject: At order 4.0
Date: Friday, June 19, 2020 11:11:46 AM

EXTERNAL:

AM-1 Clos Tita is a small artisanal winery in the Santa Cruz mountains. Our one acre parcel of roughly 800 vines was planted in 1990 originally , and is in fact now undergoing some replanting.

AM-2 From the start we have hand worked the vines, and practiced sustainable agriculture , near organic ,although not certified as such. We employ a drip irrigation about five times a growing season , adding organic supplements perhaps two of those five waterings.
No herbicides are used, and micronized sulphur is backpack sprayed once a season in most years. In winter the soil is covered in grass and clover.

AM-3 We support environmental protective action where helpful , but for us this ag. order is an unnecessary extra burden to an already highly regulated industry.

Respectfully,
Dr. David Estrada , proprietor
Clos Tita Winery
Sent from my iPad

Response to Comment AM-1

This comment is noted.

Response to Comment AM-2

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

Response to Comment AM-3

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

Letter AN: Don Howell, Floricultura Pacific Inc. (June 19, 2020)

Letter AN

From: Don Howell
To: AgNOI_WB@Waterboards
Subject: Comments of Draft Ag Order 4.0
Date: Friday, June 19, 2020 3:36:39 PM

EXTERNAL:

Dear Mr Matthew Keeling

AN-1 Floricultura operates a 15 acre orchid nursery in Salinas Ca. We employ 60 people year round in our greenhouses. Floricultura is a Holland based floral company that built new high tech greenhouses here to service the US floral industry. At the time of construction in 2010 the company employed as much technology as possible to not only make the facility as automated as possible but also the most environmentally friendly operation as you can find in this country. A perfect example of this is our rainwater collection system. All the rainwater from 15 acres of greenhouse roofs is directed to 3 - 435,000 gallon storage tanks. With an average rainfall that storage can supply up to 65% of our annual irrigation needs.

AN-2 Regarding the new Ag Order I would like to make a few comments from what I can see.

AN-3 Companies will need to develop and implement Farm Water Quality Management Plans that will include an Irrigation and Nutrient Management plan, Pesticide Management Plan, Sediment and Erosion Plan, Riparian Area Management Plan, Water Quality Plan and Education and Mitigation Measurement Implementation.

AN-4 There will have to be educational programs or professional assistance to help small companies like ours meet these requirements. It appears that we will need to compile significant calculations and data collection to meet these goals.

AN-5 Floricultura is working very hard to reduce water, fertilizer and pesticide use through our irrigation systems, media testing programs and biological control of pests and diseases. It appears to me that the emphasis must be placed on innovation and education rather than limiting fertilizer use.

AN-6 Floricultura Pacific is committed to growing our plants in the most responsible and efficient manner as possible and look forward to innovating whenever possible to improve those ideals. We are members of the group MPS which grades companies on a number is environmental issues with a goal to provide sustainable floral products.

Best regards,
Don Howell
Floricultura Pacific Inc.

T +1 (831) 422-2200
I www.floricultura.com


Floricultura, Breeding your success

Response to Comment AN-1

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

Response to Comment AN-2

This comment is noted.

Response to Comment AN-3

This comment is noted.

Response to Comment AN-4

This comment is summarized and responded to in the following Master Responses: 2.1.5; 2.1.15; 2.1.4; and 2.2.1.

Response to Comment AN-5

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

Response to Comment AN-6

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

Letter AO: George Donati, Pacific Coast Farming (June 19, 2020)

Letter AO

From: George Donati
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order
Date: Friday, June 19, 2020 2:49:00 PM
Attachments: Ag Order 4.0 Draft Letter george.docx

EXTERNAL:

Please present my comments to the Ag Order.

George Donati
Pacific Coast Farming

805-441-5910

PACIFIC COAST FARMING

5878 EDNA ROAD • SAN LUIS OBISPO, CA 93401 • 805-597-8700

June 19, 2020

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

Re: COMMENTS ON AG ORDER 4.0 DRAFT

Dear Executive Officer Keeling:

AO-1 My company, Pacific Coast Farming, manages over 1300 acres of producing vineyard land. Most of our larger properties are SIP Certified, but regardless of certification, we farm using the same vigilance. These farming practices include those that protect water quality such as: low applied irrigation, low applied nutrients, nutrient budgets to determine efficient nutrient rates, pest management, keeping pesticides on site, reducing/minimizing storm water runoff, cover cropping and erosion control. Our company has a definite commitment to protect surface and water quality because not only does it benefit the land and natural habitat that surrounds our area, it protects all of us, including my family, who live and work here.

AO-2 The current Draft 4.0, EIR, and attachments are long, complicated, and confusing with different reporting and timelines for different constituencies. The reporting is overly burdensome, requiring an abundance of additional items to track in detail. I do not believe that this type of rigorous red tape will result in better water quality and environmental preservation. If anything, it distracts from diligent farmers' abilities to focus on sustainable practices, which are what truly keeps our surface and groundwater safe.

AO-2 cont. With the additional regulatory compliance that Draft 4.0 requires, my company will have to hire a new technician to track, enforce and report the documentation and recordkeeping that will be required. This is another added cost that I do not have the funds for.

AO-3 Some issues of concern, as they pertain to our company's operations:

- Draft 4.0 only considers geographic location and not operational risk to water quality. All growers are required to complete all reporting under different phases regardless of operational risk.

AO-4
- Vineyards are a low risk to water quality and should be handled separately regarding monitoring and reporting.

AO-5
- Vineyards currently meet the 2050 Nitrogen Loading threshold of 50 lbs/acre and should be exempted from monitoring and reporting related to groundwater. For example-in 2019, our largest SIP Certified property was 706 acres and had a TOTAL Nitrogen use of 12.50 lbs/acre. (As a comparison note, the "Target" for 2022 under Draft 4.0 is 500 lbs/acre.)

AO-6
- Vineyards do not have tailwater and maintain winter cover, therefore their monitoring and reporting should reflect that operational risk.

AO-7
- 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.

AO-8 I also fully believe that SIP Certified should be recognized as an alternative compliance pathway and current SIP documentation should be recognized in lieu of listed farm planning requirements. We are extremely experienced in understanding and implementing sustainable practices. Below are summary points:

AO-9
- 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.

AO-10
- If staff intends for a certification program to quality, these requirements must be edited.

AO-11
- SIP Certified operators should have an alternative Annual Compliance process to avoid duplicative documentation.

AO-12
- SIP Certified operators are required to implement practices that protect water quality and are verified by an independent inspector.

AO-13 • SIP Certification documentation requires ranches to have a thorough Conservation Plan that addresses Irrigation, Nutrition, Erosion, Pest Control, and Riparian Habitat.

AO-14 • SIP Certified operators, who are required to complete GW testing, should be allowed for this to be recognized without requiring additional analyses.

AO-15 • SIP Certified operators, who are required to complete irrigation and nutrient reporting, should be allowed for this to be recognized without additional reporting.

AO-16 • SIP Certified operators are required to have a set back from blue-line streams and should be exempted from additional riparian requirements.

AO-17 • SIP Certified operators are required to have an erosion plan and implement several winter erosion control practices; this should be recognized without additional work.

AO-18 I strongly encourage staff to consider modifying this draft to account for alternative compliance for low risk vineyards, leveraging current successful efforts such as SIP Certified, and creating a framework that incentivizes adoption of practices that protect water quality by REDUCING not increasing the regulatory requirements. These changes would reflect the direction from the Board over the last several years in addition to vineyard stakeholders who are greatly affected by this Order.

Sincerely,

George Donati
President and General Manager
Pacific Coast Farming
George@pacificcoastfarming.com

Response to Comment AO-1

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

Response to Comment AO-2

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

Response to Comment AO-3 through AO-4

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

Response to Comment AO-5

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

Response to Comment AO-6

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

Response to Comment AO-7

This comment is responded to in Master Response 2.8.8.

Response to Comment AO-8 through AO-17

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

Response to Comment AO-18

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

Letter AP: Kasey MacInnes, Pacific Coast Farming (June 19, 2020)

Letter AP

From: Kasey MacInnes
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Friday, June 19, 2020 2:02:36 PM
Attachments: image001.png
Ag Order 4.0 Draft Letter.docx

EXTERNAL:

Dear Executive Officer Keeling:

I work for Pacific Coast Farming as the Vineyard Technician. I oversee monitoring our properties' compliance with the Ag Order under the CCRWQCB, and I handle SIP Certification for all our participating ranches, as well.
Please see that attached comment letter.

Kasey MacInnes
Vineyard Technician
PACIFIC COAST FARMING
(805) 405-5291 cell
Kasey@pacificcoastfarming.com

June 19, 2020

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

AG ORDER 4.0 DRAFT

Dear Executive Officer Keeling:

I work for Pacific Coast Farming as the Vineyard Technician. I oversee monitoring our properties' compliance with the Ag Order under the CCRWQCB, and I handle SIP Certification for all our participating ranches, as well.

AP-1

Our company manages approximately 1280 acres of producing vineyard land right now. Most of our larger properties are SIP Certified, but regardless of certification, we farm using the same vigilance. These farming practices include those that protect water quality such as: low applied irrigation, low applied nutrients, nutrient budgets to determine efficient nutrient rates, pest management, keeping pesticides on site, reducing/minimizing storm water runoff, cover cropping and erosion control. I know that our company has a definite commitment to protect surface and water quality because not only does it benefit the land and natural habitat that surrounds our area, it protects all of us who live and work here.

The previous Ag Order 3.0 had numerous requirements, which as the person who handles the record keeping and physical well water monitoring for our enrolled properties, I can attest required hundreds of hours of my time (verified by payroll hours dating back to 2017). The current Draft 4.0, EIR, and attachments are long, complicated, and confusing with different reporting and timelines for different constituencies. The reporting is overly burdensome, requiring an abundance of additional items to track in detail. Just reading the document was challenging, let alone trying to implement it in its entirety. I do not believe that this type of rigorous red tape will result in better water quality and environmental preservation. If anything, it distracts from diligent farmers' abilities to focus on sustainable practices, which are what truly keeps our surface and groundwater safe.

AP-2

Some issues of concern, as they pertain to our company's operations:

AP-3 • Draft 4.0 only considers geographic location and not operational risk to water quality. All growers are required to complete all reporting under different phases regardless of operational risk.

AP-4 • Vineyards are a low risk to water quality and should be handled separately regarding monitoring and reporting.

AP-5 • Vineyards currently meet the 2050 Nitrogen Loading threshold of 50 lbs/acre and should be exempted from monitoring and reporting related to groundwater. For example-in 2019, our largest SIP Certified property was 706 acres and had a TOTAL Nitrogen use of 12.50 lbs/acre. (As a comparison note, the "Target" for 2022 under Draft 4.0 is 500 lbs/acre.)

AP-6 • Vineyards do not have tailwater and maintain a winter cover crop. Therefore, their monitoring and reporting should reflect that operational risk.

AP-7 • 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.

AP-8 I also fully believe that SIP Certified should be recognized as an alternative compliance pathway and current SIP documentation should be recognized in lieu of listed farm planning requirements. Our company SIP Certified one of the first vineyards, Paragon Vineyards, back in 2008 when the program was still in the early stages. We are extremely experienced in understanding and implementing sustainable practices. Below are summary points:

AP-9 • As currently written, SIP Certified would not qualify as a 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.

AP-10 • If staff intends for a certification program to quality, these requirements must be edited.

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AP-17 • SIP Certified operators are required to have an erosion plan and implement several winter erosion control practices; this should be recognized without additional work.

AP-18 I strongly encourage staff to consider modifying this draft to account for alternative compliance for low risk vineyards, leveraging current successful efforts such as SIP Certified, and creating a framework that incentivizes the adoption of practices that protect water quality by REDUCING not increasing the regulatory requirements. These changes would reflect the direction from the Board over the last several years in addition to vineyard stakeholders who are greatly affected by this Order.

Sincerely,

Kasey MacInnes
Vineyard Technician
Pacific Coast Farming
Kasey@pacificcoastfarming.com

Response to Comment AP-1

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

Response to Comment AP-2

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

Response to Comment AP-3

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

Response to Comment AP-4

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

Response to Comment AP-5

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

Response to Comment AP-6

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

Response to Comment AP-7

This comment is responded to in Master Response 2.8.8.

Response to Comment AP-8 through AP-17

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

Response to Comment AP-18

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

Letter AQ: Max Teclaw, Babe Farms Inc. (June 19, 2020)

Letter AQ

From: Max Teclaw
To: AgNOI, WB@Waterboards
Subject: (Babe Farms) Comments on the Ag Order 4.0
Date: Friday, June 19, 2020 9:48:07 AM
Attachments: water board.docx

EXTERNAL:

Babé Farms, Inc.
805.925.4144
www.babefarms.com

Water Board,
These are some of the comments I have for AG 4.0.

Farms Plans and INMP Summary report

- AQ-1 This will require someone with expertise in the field that we do not have.
- AQ-2 I do not know about everyone but with required data collection and compliance, we do not have technical resource in house to be compliance.
- AQ-3 I have no idea what this will cost our company in already hard times for AG.

INMP for Ground Water Protection

- AQ-4 There are some ways you can remove nitrogen that the calculations did not account for.
- AQ-5 The calculations did not account for the type of soil they are applying for.
- AQ-6 In a couple of years, we will not be able to have multiple crops in one year.
- AQ-7 An incentive credit program needs to be established with other consideration for calculating nitrogen.

SEMP

- AQ-8 TMDL qualifiers are very low. Needs to be more reasonable value.
- AQ-9 During a storm, its hard predict where the water is going to end up at.
- AQ-10 To design and build a catch water basin would cost a significant amount of money. This also brings in more monitoring and recording which means more money.

Groundwater Monitoring and Reporting

- AQ-11 This is more cost bringing in a 3rd party for the sampling.
- AQ-12 What is the base for the monitoring pesticide? There will be more cost for monitoring and reporting.

Riparian Area Management and Setbacks

- AQ-13 This will lessen or production acreage by a significant amount.
- AQ-14 Who determines what to plant in a specific area?
- AQ-15 Do you have to irrigate the setbacks?
- AQ-16 These setbacks will be harboring pests that you cannot do anything about.

Additional Requirements

- AQ-17 Farm road to be constructed to CA code of regulations. What does this mean? Sounds like more cost.
- AQ-18 Strahler map, where does the width of the stream start and stop? The Santa Maria river has two levees north and south, the setback starts at the levee or at the line on the map?

AQ-19 I am for a water management plan but, I think they are going to have drastic problems for the farms if requirements do not change with the AG 4.0.

Thank You,
Max Teclaw
Babe Farms Inc.

Response to Comment AQ-1

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

Response to Comment AQ-2

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

Response to Comment AQ-3

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

Response to Comment AQ-4 through AQ-5

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

Response to Comment AQ-6

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

Response to Comment AQ-7

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

Response to Comment AQ-8

This comment is summarized and responded to in Master Response 2.7.8.

Response to Comment AQ-9

This comment is summarized and responded to in Master Response 2.7.6.

Response to Comment AQ-10

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

Response to Comment AQ-11

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

Response to Comment AQ-12

This comment is summarized and responded to in Master Response 2.4.5.

Response to Comment AQ-13 through AQ-16

This comment is responded to in Master Response 2.8.8.

Response to Comment AQ-17

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

Response to Comment AQ-18

This comment is responded to in Master Response 2.8.8.

Response to Comment AQ-19

Thank you for your comment.

Letter AR: Norman C. Groot, Monterey County Farm Bureau (June 19, 2020)

Letter AR

FARM BUREAU MONTEREY

1140 Abbott St., Ste. C
P.O. Box 1449
Salinas, CA 93902

831/751-3100
www.montereycfb.com

June 19, 2020

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

VIA: E-mail to AgNOI@waterboards.ca.gov

RE: Comments on Draft Ag Order 4.0

Dear Mr. Keeling:

Monterey County Farm Bureau represents family farmers and ranchers in the interest of protecting and promoting agriculture throughout our County. Since 1917, Farm Bureau strives to improve the ability of those engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of our local resources.

AR-1

Our organization has been actively involved in the Irrigated Lands Regulatory Program (Ag Order 4.0) development process, providing progress updates to our Board of Directors each month; a technical advisory committee was formed with Grower-Shipper Association of Central California so member stakeholders could address on-farm issues and provide input into the various aspects and elements of the proposed program. We appreciate the opportunity to provide comments on the draft Ag Order 4.0 released on February 21, 2020.

Background

AR-2

Monterey County Agriculture is a diverse cropping system of vegetables, leafy greens, berries, grapes, cattle, totaling almost 150 varieties of seasonal and annual crops. The convergence of great soils, adequate water supplies (highly developed), and climate make the Salinas Valley area of Monterey County one of six areas of the world commonly referred to as a 'Mediterranean Climate' zone.

Annual Crop Reports are generated by the Agricultural Commissioner's office, with the latest report of 2018 placing Monterey County fourth in California production with $4.25 billion in

gross farm gate value.[1] The diversity of our cropping systems allows for continual growth in value each year even if one or more crops experiences poor market pricing or sub-standard production quality.

Monterey County is dependent on local Agriculture for its economic vitality, with over 72,000 jobs directly or indirectly related to agricultural operations, production, and processing. Local communities are predominantly characterized as having large immigrant populations, most employed in either the Agriculture or Hospitality sectors.

AR-2 cont.

Intense pressures from pests, diseases, and molds have challenged the entire agricultural community to seek out new and better ways to manage these issues. Continuation of research through UC Cooperative Extension and California Leafy Greens Research Program, for example, have helped to manage both on-going issues as well as new, exotic pests that are frequently introduced due to our global community and marketplace.

While Monterey County may be known as a tourist destination that includes Pebble Beach, Cannery Row, the Monterey Bay Aquarium and National Marine Sanctuary, the agricultural sector of our economy is nearly three times larger when direct, indirect, and induced economic factors are tabulated.[2] The Salinas Valley comprises nearly 220,000 acres of irrigated agriculture, plus many more acres dedicated to grazing in the surrounding foothills.

The past five years have brought new technology firms to the Salinas Valley as connections have been made with the Silicon Valley as their interest in 'Ag Tech' expands to include irrigation and field practices that are increasingly being improved through technology gains. The Technology Innovation Center in Salinas focuses on this integration of technology into the growing practices that are increasingly pressured by water quality and quantity regulations. Monterey County enjoys farming operations that are some of the most advanced in our State and are early adopters of new technologies; already nearly 70% of crops produced are grown utilizing micro-irrigation practices.

The Salinas Valley is known as the Salad Bowl of the World, producing 59% of the leafy greens consumed nationally each year, 53% of the broccoli, and 30% of the strawberries. Monterey County leads California's production in nine crops important to healthy diets: lettuce, strawberries, broccoli, cauliflower, mushrooms, spinach, artichokes, cabbage and celery.

Comments on Process

AR-3

The extensive amount of information included in the draft Ag Order 4.0 documents, including all appendices, tables, findings, and narratives, represents a substantial change in how the regulated community will be monitored and required to comply with a large amount of new and different requirements. To fully understand the implications of such a broadly scoped regulatory program requires extensive and careful review of all the provisions contained therein, including any unintended consequences that result from these new monitoring and regulatory requirements.

Page 2

[1] Monterey County Crop Report, 2018, County of Monterey Agricultural Commissioner, Salinas CA, June 2019.
[2] Economic Contributions of Monterey County Agriculture: Leading the Field Through Diversity and Technology, Monterey County Agricultural Commissioner, Salinas CA, June 2015.

AR-4 The regulated community needs to be treated fairly and allowed substantial time to provide reaction and input into the Ag Order 4.0 process. The distractions of the COVID-19 crisis have consumed much valuable time that would otherwise be dedicated to reading, analyzing, and assessing the impacts of the multitude of information presented; many stakeholders may find themselves disenfranchised due to the pandemic and its lasting effects on farming operations.

AR-5 During the 18 months leading up to the issuance of the draft Ag Order 4.0, representatives from agricultural associations participated in several meetings held with Central Coast Regional Water Quality Control Board (Regional Water Board) staff to discuss specific elements of the irrigated lands regulatory program, both those currently in place within Ag Order 3.0 and those under consideration for the draft Ag Order 4.0 During these discussions, agricultural representatives detailed the complexities of the cropping patterns, soil types, micro climates, and food safety measures that all farms must practice. Extensive discussion was held on the precedential mandates of the Eastern San Joaquin Irrigated Lands Regulatory Program (ESJ) and how those might be applied to intense Central Coast farming practices. The extent of these discussions appears to have not impacted much within the draft Ag Order 4.0 provisions and mandates; we find that many of the items and issues discussed in these sessions with Regional Water Board staff were not taken into account or were largely ignored.

AR-6 We also raise concern over the process that got us all to this point. Several workshops and presentations were held before the Regional Water Board where the regulated community was not allowed to present or provide rebuttal to the presentations made before Regional Water Board members. This presented an unfair, one-sided viewpoint to Regional Water Board members and did not reflect the regulated community's efforts to find common ground and consensus for a new approach or revised program that provides a realistic pathway to compliance with water quality objectives.

AR-7 This draft Ag Order 4.0 proposes to substantially change the footprint and method of producing food crops in the Central Coast region; the economic impacts of these changes cannot be minimized, and should be fully studied and considered during the adoption process because of the impacts to local communities. The value of the farming sector to the Central Coast economy is not reflected in this process; the lack of clarity and consideration of the economic impacts places all stakeholders at a disadvantage.

AR-8 To this end, we find the process for development of the draft Ag Order 4.0 is deficient and places the regulated community in the unfavorable position of having to defend its right to grow crops and maintain a profitable livelihood, and indeed, to remain viable in the coming decade. Further, this draft Ag Order 4.0 is not a compromise program as was sought by the regulated community, to make it achievable with positive results on water quality improvements.

Farm Plans and Data Management

AR-9 Multiple elements of the farm plan must be developed to be compliant with this proposed program. We find this set of requirements excessive and costly for most farms, and indeed, many small farms will not be able to develop all the technical information required for these plan elements. While some of these requirements exists in prior Ag Order iterations, the Sediment and Erosion Management Plan (SEMP) and Riparian Area Management Plan (RAMP) elements are more involved and will require professional expertise to substantiate the on-farm practices to be included in these plans.

AR-10 We question the ability of farms to find enough professional expertise to develop, update, and certify all or parts of the Farm Plans, as indicated in the requirements for compliance. Changes to California law have thrown the entire consultant community into uncertainty (referencing AB 5 implementation), with many professionals now questioning their ability to provide services as they can neither be employees of any company or consultants in the true sense of the law. The atmosphere towards consultants with professional credentials in crop, soils, and pest control is hostile and will probably not survive (in its current form) the implementation of this new employer-employee relationship law. Liability exposures make it difficult for these consultants to certify any plan, no matter how simple or complex. While Regional Water Board staff may desire that elements of the Farm Plans be certified by these professionals, the reality is that this professional structure has been altered by state and liability laws and should not be mandated in the draft Ag Order 4.0; Regional Water Board staff has been made aware of these shortcomings and should have considered this new paradigm at the time of drafting these requirements.

AR-11 Significant data collection by all farms will be mandated if compliance with all the Farm Plan elements is to be achieved. The number of crops produced, along with the rotation of crops on farms, will cause an intensive amount of data gathering at each step of a crop's cycle, from field preparation to harvest. An average farm of 300 acres will most likely have around 2,500 to 3,000 data points annually that must be recorded, stored, and then reported. There can be no underestimation of the amount of time and resources this will require, especially for a small farm operation where most of the employees are family members with limited time for office work. The complexities of this data management provision of the draft Ag Order 4.0 cannot be minimized and will significantly increase the burden of farming management.

AR-12 One area of major concern is the collection of evapotranspiration (ET) data points that need to be maintained by farms or ranches during a crop cycle. Are these to be collected daily during the growing stages of the crop? Or as the weather changes? This could lead to a large number of datapoint record keeping that exponentially impacts daily farming operations. More clarity on the collection of ET information is needed prior to initiating this provision of the draft Ag Order 4.0.

AR-13 Many of the farm operations in the Central Coast region, despite multiple communications from agricultural associations and the Regional Water Board itself, are largely unaware of the proposed provisions of the draft Ag Order 4.0. This will then present a large challenge to educate and train the responsible parties of all the requirements for record keeping, plan development, monitoring, and reporting that will be implemented over the course of the program (with a heavy front-end load). We find no evidence that the Regional Water Board staff has considered the amount of time, effort, and capital that will be required by farming operations to put these processes in place; the learning curve will be very steep and beyond the technical capacity of most skill levels currently available. Will the Regional Water Board staff assume the role of process educator to ensure that all enrolled in the Irrigated Lands Regulatory Program are aware of these new requirements? Agricultural associations and third-party providers should not be expected to manage this education and indoctrination process.

AR-14 How will Regional Water Board staff manage the quality assurance (Q/A) of data submissions? With so many data points being reported by individual farms (say 4,300 farms with 2,500 data points on average, or an estimated total of 1,075,000 data points each year), there appears to be a strong need for data management and Q/A before any analysis can be undertaken. Errors in compliance reporting, which will happen due to human nature and the process of submitting the data by manual entry, will compound the inefficiencies of this data collection process. We

AR-14 cont. express concern that the Regional Water Board staff is not sufficiently prepared for the amount and extent of the data reporting that will take place, nor possess the ability to Q/A the data in a timely manner for proper analysis.

AR-15 With the amount of data required to be collected and reported on the Annual Compliance Form (ACF), there may need be an extended time frame for reporting this information to the Regional Water Board staff; we suggest lengthening the reporting period to at least 90 days from the close of the reporting cycle year.

AR-16 We suggest the answer to this data complexity is to move more to a whole farm model of reporting, rather than individual crops; we support collection of annual compliance reporting by farm or ranch rather than by each individual crop.

AR-17 Nitrogen Application Limits

Agronomically, all crops require nitrogen to be successful to the point of producing yield that is marketable at a profit. Various factors such as climate, soil type, crop variety, and finished product structure all play into the nitrogen equation to produce a successful product for market. Science must drive the amounts of nitrogen required for each individual crop; much of that science is lacking for the mandated coefficients needed for compliance calculations. What may be researched for a crop in another region or state does not necessarily apply to the Central Coast region as climate and soils are different, with unique characteristics differentiating even the smaller areas of many of the production valleys. Much of the available research on coefficients is now dated. One size does not fit all.

AR-18 We find the limits placed on residual nitrogen in soils post-harvest in the later years of the draft program unacceptable and not supported by scientific agronomic research or currently available farm practices (referencing Table C.1-2, "Time Schedule for Nitrogen Discharge Targets and Limits" for years beyond 2030). The timeframe is too short to achieve and substantiate this type of unilateral reduction in soil residuals for nitrogen given the current levels of agronomic science; more research is needed to validate any late-program limit mandates on nitrogen use and residuals.

AR-19 It appears that Regional Water Board staff has taken the Thomas Harter groundwater report to the State Legislature (2012) and added a factor for water application rate to come to the 50 pounds per acre limit in 2050. This was not the intent of Dr. Harter when he presented his report nor should this metric be used as a regulatory limit; the calculation is too inaccurate to be a mechanism to determine groundwater recharge risk that includes residual nitrogen not consumed during the production of a crop. This type of calculation is far too general when considering the multiple soil types of the Central Coast region and does not account for denitrification during the immediate application and root zone transference (estimated to be 5% to 20% of the amount applied). One size does not fit all.

AR-20 Rather than trying to measure individually by crop, we suggest that these complex calculations of residual nitrogen loading to groundwater be managed on a farm or ranch annual production cycle basis, then aggregated to a township level or a geographical area that fits with any cooperative monitoring efforts approved, similar to the ESJ precedential order. But even this measurement structure will pose challenges as it will bisect some farms and ranches into multiple townships or geographical areas.

Page 5

Monterey County Farm Bureau <> Ag Oder 4.0 Comment Letter <> June 19, 2020

AR-21 The allocation that the Regional Water Board staff interprets as the water application rate (1.5 acre foot/acre) is actually low for the multitude of crops produced in the Central Coast region. Thus, the estimate for water application used for this calculation determination of 50 pounds per acre is not supported by agronomic science nor the Harter report conclusions due to underestimation of specialty crop irrigation requirements. Specific crops require differing irrigation needs; one size does not fit all.

AR-22 Further, substantiating nitrogen remaining in soils post-harvest is subject to many factors and cannot be based on harvested product removed alone. Finished product structures vary even within the same crop such as romaine lettuce. The amount remaining in the field post-harvest depends on the overall crop yield and quality. What happens if there is a gleaning post-harvest, where the amount of product removed cannot be quantified? Is there an allowance for unharvested crops or fields (i.e. disease or pests, lack of harvest crew, bad weather, abandonment, etc.)? How will continuously harvested crops such as strawberries or multiple harvests of the same spinach crop measure the amount of nitrogen removed each harvest day? These variables add multiple layers of complexity and data collection points when taken fully into account for quick-turn fresh vegetable and berry crops.

Again, one size does not fit all.

AR-23 *Limits* should be restated as *targets* to avoid a future expectation that all farms must and will meet all specified water quality objectives by a specific date. Farming is an imprecise process that is done outside in the environment with a multitude of variables; holding all farms to a one-size-fits-all *limit* will inevitably lead to some enforcement actions as well as third-party legal complaints against specific growers for circumstances beyond their control (a limit will be equated as a litigation threshold). *Limits* do not provide flexibility for a multitude of variables that can occur during production and harvest; *targets* will allow for this flexibility when it is just not possible to achieve the objective due to environmental or agronomic constraints, or the sub-watershed is impaired for other factors not related to agricultural activities.

AR-24 What's missing here is that fertilizer application is not an exact science, dependent on a large number of agronomic and climactic variables; equating this to a *limit* is an attempt to mismanage that imperfect science into an exact number per crop.

AR-25 We find that the two calculation formulas will require a multitude of data collection points to manage an accurate coefficient determination.

"Compliance Pathway 1: AFER + (C x ACOMP) + AIRR – R = Nitrogen Discharge
OR
Compliance Pathway 2: AFER + (C x ACOMP) = R

In both formulas, R = RHARV + RSEQ + RTREAT + ROTHER
a. **AFER** is the amount of fertilizer nitrogen applied in pounds per acre.
b. **C** is the compost discount factor used to represent the amount of compost nitrogen mineralized during the year that the compost was applied.
c. **ACOMP** is the total amount of compost nitrogen applied in pounds per acre.
d. **AIRR** is the amount of irrigation water nitrogen applied in pounds per acre.
e. **R** is the amount of nitrogen removed from the field through harvest, sequestration, or other removal methods, in pounds per acre.

AR-25 cont.

f. **RHARV** is the amount of nitrogen removed from the field through harvest or other removal of crop material.
g. **RSEQ** is the amount of nitrogen removed from the field through sequestration in woody materials of permanent or semi-permanent crops.
h. **RTREAT** is the amount of nitrogen removed from the ranch through a quantifiable treatment method (e.g., bioreactor).
i. **ROTHER** is the amount of nitrogen removed from the ranch through other methods not previously quantified."[3]

AR-26 There are a number of unknowns in these two compliance pathways that require further consideration before they can be fully implemented by growers and harvesters:

- AR-27 Note that AFER and ACOMP are not spread in uniform amounts over any particular acre of crop; some areas will require less or more depending on soil content, crop growth, or finished product yield. It is unclear if a grower is to average this amount over the entire farm, acre, or field, and if that is acceptable for compliance, and how that influences nitrogen residual in soils.
- AR-28 Irrigation water nitrogen content (AIRR) is often variable through the growth cycle of a crop; multiple wells may be blended on any farm to achieve optimal irrigation efficiency, which can vary the nitrogen content based on how water is sourced from each well. How will variable amounts of N in AIRR be recorded within the coefficient calculation? Will estimates be allowed for irrigation water nitrogen concentrations in this situation?
- AR-29 ESJ allows for AIRR to be averaged for water use reporting; we noted that estimates are allowed for AIRR reporting, but why is averaging not incorporated in the draft Ag Order 4.0 as one of the reporting methods?
- AR-30 Use of AIRR is not specifically incentivized and may end up being a disincentive in these equations if an additional fertilizer application is needed to finish a crop.
- AR-31 AIRR is utilized to moisturize soil for field preparation and germination when there is little or no nitrogen uptake; growers with irrigation wells with a high-nitrate concentration will be at a disadvantage to meet regulatory objectives when utilizing this farm practice.
- AR-32 The Central Coast region's Mediterranean climate has precipitation periods concentrated primarily in the months of October to April annually; this is not considered as a factor in groundwater percolation and replenishment. How will cycles of dry and wet periods impact groundwater quality objectives relative to farming practices that seek to contain residual N in soils?
- AR-33 Variability in soil types throughout the Central Coast region is not considered, nor are weather sub-sets that may influence the amount of AIRR utilized for any crop.
- AR-34 There is no element of these equations that accounts for the amount of water content removed at harvest in any given crop.
- AR-35 Nitrogen application methods utilized on a farm or ranch are not considered; methods vary for nitrogen application and uptake efficiency, such drip, sprinkler, foliar, or furrow. Why is this not considered in the equation of N applied (AFER)?
- AR-36 Most farmers will not be able to calculate their C (compost discount factor) as the amount of nitrogen varies in compost mixes and mineralizes at different rates due to a number of environmental factors. Are growers expected to hire professionals to make this calculation (or rely on their compost supplier to make this calculation accurately)?

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[3] Draft General Waste Discharge -10- Order No. R3-20xx-xxxx Requirements for Discharges from February 21, 2020 Irrigated Lands (WDR Document), Part 2, Section C-1., #4, page 25.

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AR-37
- Many growers are not the harvesters of their own crop and are not fully aware of the yield amounts per acre because they sell on contract to a specific buyer; growers, thus, would not be responsible for the sampling and testing of RHARV and would have not have sufficient data to calculate the required coefficient unless there is a specific provision to share this information, which many agreements between growers and buyers prohibit.

AR-38
- There could be multiple finished products harvested from any given field; for instance, romaine in one field could yield hearts, leaf, and head products. This then requires multiple tissue samples to determining RHARV and adds significantly to costs of sampling, analysis, and data collection. How will this product differentiation be reported on the ACF? Again, this will be many more data points that will need to be collected, collated and reported.

AR-39
- RSEQ will be difficult to calculate or even estimate; how will guidance or education be provided to the farmer who is not skilled to make this calculation?

AR-40
- What determines ROTHER and how will that be qualified? We find there is no mention of biochar, glycerin, or other microbiomes that could improve carbon and nitrogen sequestration, or the use of cover crops to remove latent nitrogen, or volatilization of nitrogen to the atmosphere; none of these are included as methods of limiting nitrogen loss to surface or groundwaters. Without specifically including these methods, are farmers then forced to incur a costly and lengthy process to secure approval for use of these or any ROTHER method available?

AR-41
- How will groundwater sustainability plans that seek to provide more replenishment of groundwater basins impact water quality objectives and trend monitoring over the time frame of the Ag Order? It's reasonable to assume that these replenishment resources will provide additional clean quality water to speed the dilution of remaining nitrates in groundwater basins; no consideration has been expressed on how groundwater quality will be improved by groundwater sustainability plans.

AR-42
Any application limit for nitrogen will place growers on a slippery slope between harvesting a marketable crop and crop failure and, consequently, no N removal. This raises a question of whether an application limit that causes a crop failure or abandonment is the direct responsibility of the Regional Water Board for the portion of nitrogen remaining in the field due to the unharvested crop that is lost in the soils and at risk for leaching?

AR-43
During the Regional Water Board staff's workshop for Monterey County farms on June 3, 2020, it was stated by Regional Water Board staff that irrigation water use (AIRR) would be analyzed to 'fine tune over-application of irrigation water' for the benefit of water quality, either surface or groundwater. There was no mention of how this measurement would be accomplished; the assumption, from this statement, is that Regional Water Board staff will review the estimates (or real numbers) of irrigation water use reported and make a determination on what farms or ranches are using too much water in the production of their crops. We question on what basis the Regional Water Board staff would be able to make this judgement simply by looking at numbers on an ACF submitted, without the context of the variability of the crop grown (or extenuating circumstances of any particular farm or ranch). We again assert that one size does not fit all in this case, particularly when evaluating AIRR from an ACF report.

AR-44
While we note that Regional Water Board staff is trying to take into account a number of factors determining the nitrogen discharge during production of any crop, there is a lack of acknowledgement of on-farm credits for practices and mitigations that limit nitrogen loss and

AR-44 cont.

discharge. This is extensively discussed in the Ag Partner Submittal[4] from the coalition of agricultural organization of the Central Coast region.[5] We urge Regional Water Board staff to seriously consider modifying both compliance pathway calculations to include on-farm credits as an incentive for improving practices and agronomics; this allows flexibility for growers to meet water quality objectives and moves away from the one-size-fits-all paradigm of the draft Ag Order 4.0 requirements.

AR-45

Annual Reporting, Monitoring and Compliance Costs

We express concern about the cumulative costs of all the reporting requirements mandated in the draft Ag Order 4.0.

Costs of ACF compilation are probably underestimated by Water Board staff:

> "Based on an average hourly wage rate of $45 for in-house employees, a total of 4,401 Dischargers required to submit the ACF for their ranch, labor hours ranging from 0.4 to 1.6, and the required reporting fields in the ACF, the total estimated cost of ACF tracking and reporting costs under Ag Order 4.0 is between $450,000 and $1,800,000 (between $1.06 and $4.25 per acre) over the course of five years."[6]

This cost estimate presumes to only incorporate the time for actual data entry into GeoTracker, not the time involved in compiling and researching all the datapoints, calculations of coefficients, and water quality testing data needed to complete the ACF, nor time needed to compile and complete the Total Nitrogen Applied (TNA) report (or in later years, the INMP Summary report):

> "Based on an average hourly wage rate of $45 for in-house employees, a total of 247,808 acres required to have TNA reports submitted, and labor hours ranging from 0.025 to 0.05, the total estimated cost of TNA tracking under Ag Order 3.0 is between $1,394,000 and $2,789,000 (between $3.29 and $6.58 per acre) over the course of five years."[7]

These annual reports are a significant burden to all sizes of farms, as the complexities of multiple crops per acre per year with sampling tests, coefficient calculations, and harvest yields must be collated and reported individually. The costs of both of these compliance reports are underestimated and should not be easily dismissed; many small farms will struggle under the weight of these extensive reporting requirements.

We suggest that the entry of data into GeoTracker needs to be streamlined to include an upload process from a standardized worksheet (template). Current data entry is all manually keyed and will be very time consuming for any farm no matter the size or crop. Without a standardized process template in which to make compliance reporting simpler and faster, the amount of

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[4] "Ag Association Partners' Comprehensive Submittal, Including Redline Revisions to the General Order (Ag Partner Submittal)."
[5] Coalition primary partners are: Monterey County Farm Bureau, Grower-Shipper Association of Central California, Grower-Shipper Association of San Luis Obispo and Santa Barbara Counties, Western Growers Association, and Western Plant Health Association. California Farm Bureau Federation and other County Farm Bureaus, along with other organizations and agricultural concerns, participated in this coalition.
[6] Attachment A, Section 16.e., pages 13-14.
[7] Attachment A, Section 17.b.i., page 14.

AR-45 cont.

resource time for compliance will certainly increase and will be unmanageable for many farms. This template would also provide a simpler method of acquiring and storing the necessary data for annual reporting cycles as they datapoints occur (as crops are harvested, for instance).

For the Irrigation Nutrient Management Plan (INMP), the following is estimated for costs:

> "Based on an average hourly wage rate of $45 for in-house employees, a total of 426,867 acres required to submit INMP Summary reports, and labor hours ranging from 0.025 to 0.05, the total estimated cost of tracking nitrogen removed and irrigation information under Ag Order 4.0 is between $2,705,000 and $5,410,000 (between $6.43 and $12.67 per acre) over the course of five years".[8]

For Groundwater Monitoring, the following is estimated for costs (for both cooperative and individual monitoring efforts):

> "In total, groundwater monitoring under Ag Order 3.0 cost an estimated $3,840,000 ($9.06 per acre) over the course of five years."[9]

For groundwater well testing/monitoring, the following is estimated costs:

AR-46

> "Considering 6,242 total wells, an estimated average of $155 cost per sample, annual sampling events for each well based on Groundwater Phase over the course of five years, and inflation, the total groundwater monitoring cost for irrigation and domestic well monitoring is estimated at $6,924,000 ($16.03 per acre) over the course of five years."[10]

There are no cost estimates for groundwater trend monitoring noted. For surface water cooperative trend monitoring, assuming a third-party sampling and monitoring continue in Ag Order 4.0:

> "Total cooperative surface receiving water monitoring costs under Ag Order 4.0 are estimated at $8,847,000 ($20.72 per acre) over the course of five years."[11]

Adding up these per acre estimates, there is now a range of $35.84 to $48.59 estimated over five years, or about $9.70 per acre per year (taking an average in the middle of the per acre range). We find this artificially low and mischaracterizes the burden to be placed on farms and ranches particularly as other regulatory costs are implemented and increased. Landowners are now paying a new amount per acre for Sustainable Groundwater Management (SGMA) in the Salinas Valley groundwater basin region (currently at $4.79 per acre),[12] which is based on a flat fee for administration of the agency only and does not include any sustainability projects or program implementation costs. Substantial infrastructure repair project costs (dams for Nacimiento and San Antonio reservoirs), development of an inter-lake tunnel for additional water storage capacity in reservoirs, and expansion of the Castroville Seawater Intrusion Project are all under consideration in the Salinas Valley and will be funded by landowners and farm operators, in major part.

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[8] Attachment A, Section 18.b.i., page 16.
[9] Attachment A, Section 19.a.iii., page 18.
[10] Attachment A, Section 19.b.ii., page 18.
[11] Attachment A, Section 22.d., page 21.
[12] Salinas Valley Basin Groundwater Sustainability Agency, regulatory fee established and approved March 14, 2019.

AR-47 The cost estimates do not take into account subject matter experts who may be hired for data analysis and compliance reporting; these experts come at substantially higher hourly rates than what Regional Water Board staff shows in their estimates. Many small farms will be most impacted by needing to hire these experts to complete their annual compliance reporting, thus increasing their management costs considerably.

AR-48 It should also be noted this water quality compliance cost estimate does not include costs for riparian set-back requirements, sediment and erosion management, or other monitoring and plan development requirements. To put this in perspective, an average farm of 300 acres would incur about $2,900 for just these above noted annual reporting and monitoring costs alone; while that may seem like an insignificant cost to Regional Water Board staff, small farm operations will find that amount challenging, and represents only a small portion of the full compliance costs for the draft Ag Order 4.0. The cost estimates put forward by Regional Water Board staff are not supported in actual on-farm management settings.

AR-49 Contrast these estimates with real-world dollars reported to the Regional Water Board in prior comment letters. For example, one grower who manages 1,200+ acres, some of which are in Tier 3 currently, noted water quality compliance costs of $90.70 per acre, for a total of over $114,000 just for water quality monitoring, reporting, and compliance under Ag Order 3.0.[13] We would argue that the draft Ag Order 4.0 requirements exceed those of Tier 3 growers and the quoted cost of $90.70 will certainly increase. Thus, the estimates for compliance costs are dramatically undervalued in the draft Ag Order 4.0

AR-50 All cost estimates stated in draft Ag Order 4.0 are in today's dollars and do not reflect any increase in costs over the duration of the program. The costs of state program fees continue to increase each year, with annual projections taking this much higher than the current level as state expands staffing and required reporting. Labor costs will certainly increase during this period. Thus, costs for compliance will continue to escalate during the length of the program (and do not account for additional costs if the program is modified at a later date).

AR-51 In 2018, Monterey County Farm Bureau and Grower-Shipper Association of Central California commissioned a study from researchers at CalPoly San Luis Obispo to determine the impacts of regulatory requirement costs on lettuce growers in the Central Coast region. The resulting study paper showed that regulatory compliance costs have increased 795% in the prior ten years to the study, compared to only a 29% in the costs of production.[14] This indicates that lettuce growers in the Central Coast region are already carrying a heavy load of regulatory costs, and adding another layer of costs as indicated in the draft Ag Order 4.0 could very well be the tipping point for many farms, no matter the size. Market prices for crops produced have become more competitive, and margins thinner, over this ten-year span, putting increased pressure on small farms to remain financially stable and viable. A copy of this economic study of regulatory costs is included as Attachment A to this comment letter.

AR-52 Page 11 Additionally, losses experienced due to the COVID-19 pandemic are yet to be tallied up in full for Central Coast growers. Many acres have been abandoned prior to harvest, and we've all read in the media reports about fields being plowed under due to changing marketplace conditions.

[13] "Comments to Ag Order 4.0 Options Tables" comment letter submitted by Costa Farms, January 21, 2019.

[14] A Decade of Change: A Case Study of Regulatory Compliance Costs in the Produce Industry, Lynn Hamilton & Michael McCullough, CalPoly San Luis Obispo, December 2018, pages 21-22.

AR-52 cont. The losses and impacts to farming operations cannot be minimized and will surely impact the ability of many growers to meet the financial burden that the draft Ag Order 4.0 will place on their operations.

AR-53 The larger-picture related to compliance costs is that they impact the small farm operation far more intensely, are cumulative and long-term. In numerous public surveys, there is broad support by consumers for the 'small farmer' as the reliable source for food production; these spiraling costs of regulatory compliance only serve to drive the small farm operations into financial instability and to reconsider their continued operation. We predict that the consolidation of smaller farms into larger farms will accelerate during the span of Ag Order 4.0 as a result of these increased compliance costs.

Riparian and Operational Set-Backs

AR-54 The impacts of riparian set-backs will be substantial, both for costs and loss of productive land. Despite what is cited by Regional Water Board staff as acreage to be converted to riparian habitat (estimated as 4,064 acres[15]), the amount of productive, prime farmland that will be lost to riparian set-backs will be greater and thus economically infeasible for many landowners and farm operations.

AR-55 What is missing from these set-back requirements is the supply chain food safety requirements dictated by buyers of fresh food products; there will still be a market-driven requirement for a bare-ground buffer between any vegetative area and the crop production field. In many instances, this ranges from 50' to 300' depending on the purchase agreement between the grower and buyer. The end result of a riparian set-back is just moving this buffer area further into the production field, causing substantial loss of cropping area more than the estimate provided by Regional Water Board staff.

AR-56 If the goal of the riparian set-backs is to eliminate the bare-ground areas adjacent to cropping areas, then this strategy is severely flawed and does not reflect the real-world supply chain requirements.

AR-57 The lack of an interactive Stahler classification map (link that was to be supplied by Regional Water Board staff) has hampered our ability to accurately review and make comment on impacts of the riparian set-back requirements as proposed. We request that additional comment time be provided to review, assess, and analyze this data since it was not available in a timely manner during this comment period.[16]

AR-58 We estimate that the actual loss of productive, prime farmland to be at least 100% higher, or more, than what is estimated in the draft Ag Order 4.0, based on supply chain food safety mandates, and will probably run higher as the supply chain realizes that more vegetative areas are to be developed directly adjacent to or surrounding crop production fields. As demonstrated during the presentation to the Regional Water Board at the workshop that focused on food safety (March 2019), there are instances where farms adjacent to waterbodies could lose up to 60% of crop production acreage based on the configuration of the farm or parcel. This then becomes a regulatory mandate requiring that a significant amount of dedicated land be set aside for a

[15] Attachment A, Section 27, page 25.

[16] Link to the Map was provided on June 12, 2020, ten days prior to the comment period deadline.

AR-58 cont. specific purpose unrelated to the actual land use in place, either intentional or as an unintended consequence.

AR-59 Leafy Green Marketing Agreement (LGMA) provisions note that all participating growers need to be aware of animal and avian incursions, and inspect for such prior to harvest:

> "If there is evidence of intrusion by animals, the production block must undergo a detailed food safety assessment by appropriately trained food safety personnel (see Glossary) prior to harvest, as defined in the text of this document."[17]

AR-60 Monitoring for incursions is necessary, and:

> "If evidence of animal intrusion is found in a production field, conduct a visual food safety assessment to determine whether the intrusion is a probable (medium/high hazard) or negligible (low hazard) risk. Low hazard (negligible risk) can be corrected by following a company SOP. Medium to high hazard (probable risk) intrusion should include a three-foot buffer radius around a do not-harvest area where the impacted crop has been isolated."[18]

AR-61 While it cannot be estimated fully how much wildlife the riparian set-backs will support, or indeed provide habitat for, the fact is that wildlife *will* occupy vegetative areas resulting in more instances of rodents and birds adjacent to crop production fields. This will, most likely, lead to increasing incursions into fields along with scouting for these incursions, causing more food safety concerns and crop losses that jeopardize the food supply safety integrity.

AR-62 Federal regulatory compliance is set forth in the Food Safety Modernization Act (FSMA), where the Food & Drug Administration (FDA) has set out rules for implementation. FSMA promotes that food safety and the security of the food supply is a shared responsibility within the global food supply system, describing specific rules that lay out actions that all growers, producers, processors, and shippers must undertake to ensure food safety integrity; exposures to potential contamination are to be avoided and, indeed, prevented when possible. There are consequences under FSMA for failure to *prevent* these exposures, such as FDA advisory letters, courts actions that include seizure and injunction, detention of product to gain control of adulterated or misbranded products, recalls, and suspension of a food registrant to prevent shipment of a food product. These are all serious issues facing all growers who may be required to incur food safety exposure due to mandated riparian set-back areas.[19]

AR-63 Another unintended consequence of riparian set-backs and increased food safety exposures will be the abandonment of many fields if a recall order is put in place similar to the last instances of romaine contaminations in the food supply. While the traceback period was underway (several weeks at least), all romaine was pulled from the marketplace and shipments were halted; product ready for harvest in the field was abandoned and ultimately plowed under. This means that there was no N removed from the fields with an unharvested crop; how will growers be allowed to report these types of marketing actions that are direct results of food safety recalls

Page 13

[17] Commodity Specific Food Safety Guidelines, CA Leafy Greens Marketing Agreement, Table 6-Animal Hazard in Field (Wild or Domestic).
[18] Ibid.
[19] Food Safety Modernization Act, U.S. Food & Drug Administration, "Frequently Asked Questions on FSMA" at https://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm247559.htm.

AR-63 cont. and contamination containment measures, without penalty? Riparian set-backs may increase these instances of field abandonment as an unintended consequence.

AR-64 Establishment of riparian set-backs will require a significant effort to establish the vegetation (either trees, shrubs, or grasses, as specified). This doesn't just happen with the scattering of seeds or direct planting of seedlings; a landscape plan is required to be effective and successful. Establishing any landscape is difficult enough in a planned urban development setting; in set-back areas it will be much more difficult due to banks and slopes. After the plantings are established (meaning that new roots have grown into the native soils, which requires consistent irrigation, nitrogen, and monitoring), there will be need to provide on-going maintenance to avoid the establishment of exotic and invasive weeds as well as undesirable vegetation (crowding out desirable plantings). Possible vegetation management may also need to take place in the form of pruning, shaping, and grass mowing. Pest and disease control management will be necessary to keep riparian vegetation healthy and growing. This does not seem to be supported in the draft Ag Order 4.0:

> "The following activities are prohibited within the minimum riparian setback and operational setbacks, except where specific exemptions apply:
> a. Commercial crop production;
> b. Installation of permanent structures (e.g., paved roads, storage sheds, buildings);
> c. Storage of chemicals, materials, equipment, or trash;
> d. *Application of chemicals, including fertilizers and pesticides;*
> e. Operation of heavy machinery, except as authorized through appropriate permitting mechanisms."[20]

AR-65 We find it contradictory that establishment of new vegetative set-backs prohibits the very activities needed to establish such vegetation and maintain it over time. Moreover, if irrigation is supplied to establish these vegetative areas, including on banks and slopes adjacent to these water bodies, will there be an allowance for possible sediment movement and erosion that might occur due to this irrigation? Or will the farming operation be penalized for attempting to irrigate a riparian set-back under these circumstances? How will additional water use in the paradigm of climate change and extended drought periods be justified to establish these riparian set-backs?

AR-66 There is little to no discussion in the draft Ag Order 4.0 of the many soil types of the Central Coast region. Many are incompatible to support the wetland and riparian species that are expected to be established in these set-backs. Many of these soil types cannot support the requisite amount of water needed to support riparian areas; historical photos and records do not indicate large riparian areas surrounding many natural water bodies of the Central Coast region.

AR-67 Much confusion remains of where riparian set-backs need to be measured from; is this to be the center line of the channel, edge of the waterbody, high water mark, top of the bank? How does the width of an active channel get measured if flow only occurs variably or only occasionally? What if the stream or river is characterized as meandering and changes from year to year; does this change the range of the riparian set-back each year? How is this measured if there is a levee access road on top of the levee or adjacent to the waterbody? These, and other

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[20] WDR Document, Part 2, Section C.5, #8, page 42 – italics emphasis added.

AR-67 cont. inconclusive requirements related to riparian set-backs, will make it very difficult for farm operations and landowners to fully interpret and comply with this requirement.

AR-68 Overall, it is unclear if riparian set-backs are intended to improve water quality through capture and treatment of surface water flows prior to discharge to a water body. Will capture and treatment of surface water flows count as part of the vegetative set-back distance or will that treatment area be in addition to the set-back specification? Or, if treatment areas are not included in the riparian set-back distance, what incentives will be offered to growers and landowners to dedicate additional land to establish these treatment areas?

AR-69 What happens to a riparian set-back if there is a flood event in the water body itself? Some or all of the riparian vegetation will be wiped out or washed away, leaving a severely damaged ecological area that probably cannot sustain vegetative life without substantial remediation; are landowners and farm operators expected to reconstruct these areas, only to have them at risk for another flood event? Conversely, what happens to riparian set-back areas that are influenced by the water body more frequently, such as a meandering stream or river?

AR-70 We find it difficult or next to impossible to measure how a riparian set-back will be verified as having improved water quality of either surface or groundwater over a specific time period.

AR-71 It is unclear if operational set-backs for Non-Riparian Priority areas are to remain as bare ground areas or naturally reclaimed areas (of weeds, exotic plants, and other undesirable vegetation). There are also unclear indications of how much of an operational setback will be required to be established for a specific non-riparian area, where that is measured from, and how it will be maintained. What if there is already a roadway in the operational setback? Growers will not be willing to go through a process to bring this roadway up to state code (as specified in the qualifications for all roadways); most roadways will be relocated to outside the operational set-back due to this strenuous requirement, further impacting production lands.[21] What if the operational setback currently includes area for equipment to turn around while making multiple passes through a field? Does the requirement of no mechanical equipment in the operational set-back then hinder on-farm operations and increase production costs? Overall, this requirement will be another source of confusion if implemented.

AR-72 Landowners and farm operators will most likely need professional technical expertise to determine their exact set-back requirements, measurements, and vegetative requirements. There are probably not enough of these professionals to provide this expertise to farms of the Central Coast region.

AR-73 There is no discussion anywhere in the draft Ag Order 4.0 of the amount of wildfire fuel load that riparian set-backs will create in already fire-prone areas. Monterey County has suffered through some extensive fire storms in the past decade or more; adding more fire loading material could mean that wildfires could now race through productive farmland and vineyard areas that previously would not have burned due to cultivation and crop production. This is a serious deficiency in the analysis of vegetative requirements for the riparian set-back areas.

AR-74 [21] We suspect that Regional Water Board staff copied and mandated the roadway requirements from the Timber Harvest Management Plan program; this is an inappropriate and unnecessary application of regulatory requirements for an irrigated lands regulatory program involving primarily row crops (WDR Document, Part 2, Section D, #15, #16, #17, and #18, page 50).

AR-75 Our interpretation of the findings for the riparian set-back requirements indicates that Regional Water Board staff is relying on the discharge prohibition policy to justify the mandate for this water quality requirement. We take issue with that reliance as the policy does not specifically call out that dedicated land use can be mandated as part of the discharge prohibition.

AR-76 Here in Monterey County, the General Plan document (last updated in 2010) specifies agricultural zones where commercial crop and animal production is allowed. It appears that the riparian set-backs may create a conflict with this General Plan provision (and possibly in other counties of the Central Coast region). Since the majority of lands in the Salinas Valley are specified for agriculture, a specific mandate to remove production areas for riparian set-backs without recourse is contrary to a specific land use delineated in our General Plan policies.

AR-77 Moreover, this may also become a conflict with the Williamson Act and create a property tax re-evaluation for the land no longer in active farming. Riparian area conversions are expressly discouraged and will cause cancellation of the Williamson Act contract on those parcels that are forced to set aside lands for use conversion. Penalties are assessed with these cancellations which could run into millions of dollars throughout the Central Coast region; a large number of farm parcels in Monterey County are currently enrolled in the Williamson Act and will be impacted by the riparian set-back requirements.

AR-78 Finally, what is not settled is the legal issue of a 'physical occupation' of private property for the purpose of a public benefit (the physical use of private property for a quasi-conservation easement that prohibits commercial agricultural production). This will be a legal issue of 'practical ouster of owner's possession' that will most likely require court decisions to determine the extent of compensation required to landowners and farm operators for loss of productive farmlands. Forcing large areas to be dedicated to riparian set-backs, in quasi-conservation easements without adequate compensation and justification, will certainly generate several legal issues; the law and precedent case decisions are on the side of the landowners, in our view.

AR-79 There is also the legal mandate of public agencies that require land use changes (either for a project or as part of a regulatory process, in this case dedicated riparian set-backs) to place conservation easements on other lands as a mitigation measure to ensure protection of the same amount of land in the original land use. This mandate is not considered in any of the draft Ag Order 4.0 documents nor mentioned in the draft environmental impact report. The Central Coast Water Board staff may not be able to mitigate all the lands converted to riparian set-backs with appropriate agricultural conservation easements within the Central Coast region, nor afford to do so.

AR-80 Also, to be noted here, is that any potential resource for grant funding for a regulatory program requirement for riparian set-backs is prohibited under Proposition 1 provisions (and many federal funding programs) expressly due the regulatory requirement; this prohibition will most likely hinder the ability of landowners to establish new riparian set-backs, or engage conservation agencies and organizations for help with planning and execution critical to proper vegetative area establishment and maintenance. Due to the nature of the leasehold system of crop rotations for Central Coast farms, there will be little incentive for grower/lessees to invest in the establishment of these set-backs, forcing the funding entirely onto the responsibility of the landowner. Many landowners are not actively involved in farming or farming operation management, with many landowners structured as trust entities with absentee trustees; it will difficult to educate these landowners on the provisions of the riparian set-back requirements.

AR-80 cont. Without grant funding available, it will be difficult for many landowners to accomplish this mandate on their own.

AR-81 We urge that the entire riparian set-back provisions of the draft Ag Order 4.0 be scrapped until further scientific and legal evidence can be provided on the food safety concerns, land use and inverse condemnation, and public benefit issues. There are too many areas of concern that will make this requirement unworkable for most farms and ranches, and generate significant management and legal conflicts.

AR-82 Instead, establishment of riparian areas should be considered an opportunity for an on-farm practice that is *individually elective* by each farm operation depending on specific objectives and site-specific outcomes.

AR-83 Levees and Manmade Barriers

Requirements for manmade barriers around waterbodies will lead to more confusing compliance requirements:

> "A ranch that is bordered by a manmade barrier between the operation and a waterbody that prevents the establishment of a riparian and/or wetland setback on the farm that is not under the Discharger's legal control may be exempt from this requirement (e.g., a flood control district levee, berm, etc.). This exemption only applies to the area of the farm that borders the barrier (e.g., if the farm has 1,000 feet of land adjacent to a waterbody but only 500 feet of that land borders a barrier, the Discharger must comply with the riparian and/or wetland setback requirement for the 500 feet of land adjacent to a waterbody that does not border the barrier)."[22]

AR-84 Many levees and berms were created decades ago by agencies that have abdicated or abandoned their maintenance responsibilities; landowners and farm operations have attempted to maintain these barriers when possible, or as needed. It will be difficult for many landowners and farm operators to prove that maintenance of these barriers is the responsibility of, and is clearly delineated to, another agency or responsible party, and that this maintenance will be performed or continued during the term of the Ag Order 4.0 program. This could set up a number of conflicts and, thus, make it difficult for the exemption to be qualified for or proven. This will lead to unnecessary costs of establishing riparian set-backs that are not actually needed or justified.

AR-85 Additionally, there may be a public policy conflict with this proposed requirement for vegetation of barriers such as levees. Federal policy dictates that vegetation must be stripped from these types of barriers in order to maintain proper structural integrity. This federal policy has become a large source of conflict in the levee system of the California Delta region. Also, lack of vegetation on levees is important for flood insurance underwriting. Requirements for vegetative barriers will then create conflicts between federal and state regulatory requirements for landowners and farm operations, as well as jeopardize the ability to retain flood insurance.

AR-86 Page 17 Currently, the levee system of the Salinas River channel is not in the Army Corps of Engineers (USACOE) PL 84-99 program for levee management or jurisdictional control; Monterey County Water Resources Agency is not a local sponsor. This places the landowners as the responsible

[22] WDR Document, Part 2, Section C.5, #33, pages 46 & 47.

AR-86 cont.

parties for levee management, thus voiding any chance for the exemption proposed in the draft Ag Order 4.0. Other levee systems throughout the Central Coast region may be under the USACOE PL 84-99 program and subject to vegetation management under the Engineering Pamphlet (EP) 1110-2-18. We note that guidance is not regulatory mandate at this time as the entire vegetation issue on levees is under USACOE review (and delayed due to the COVID-19 pandemic).

AR-87

Useful information on levee maintenance is provided in the USACOE Levee Safety Update for the first quarter of 2019:

> "The primary source of these guidelines is the information contained in Engineer Technical Letter (ETL) 1110-2-583 Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams and Appurtenant Structures, 30 April 2014. ETL 1110-2-583 is scheduled to expire on April 30, 2019. The review mandated by Section 3013 is in progress, but will not be complete before ETL 1110-2-583 expires. In order to maintain the status quo while the review mandated by Section 3013 is completed, the information from ETL 1110-2-583 is being published in Engineer Pamphlet (EP) 1110-2-18. Conversion from ETL 1110-2-583 to EP 1110-2-18 consists of formatting changes only. No policy or substantive changes have been incorporated in EP 1110-2-18. This action allows for continuation of the existing vegetation policy and guidance until the USACE vegetation policy review required by Congress is completed and the guidelines are revised based on the results of the review consistent with Section 3013."[23]

This guidance puts the Regional Water Board in the unique position of ordering a farm practice contrary to federal guidance on levees and the consequences of vegetative management weakening the integrity of the structure itself, as noted by USACOE. There are guidelines for levee vegetation removal managed by USACOE and local sponsors participating in PL 88-94; thus, landowners and farm operators along the Salinas River, although not in the program itself, should consider these guidelines for similar management of levees to maintain structural integrity and protection from liability should a structural failure occur.

AR-88

Another consideration not mentioned in the draft Ag Order 4.0 is that vegetated levees and manmade barriers are attractive to ground squirrels and gophers, which create a series of tunnels and holes throughout these structures if left unchecked. Management of rodent damage is not considered in the draft vegetative and riparian set-back requirements.

AR-89

With these obvious conflicts in levee and manmade barrier management, we request that the Regional Water Board staff consider consultation with USACOE for levee systems in the PL 84-99 program, and consider the liability of weakening these structures when requiring vegetative management for those levees not in this program.

AR-90 Page 18

Food Safety Under FSMA

The requirements within the draft Ag Order 4.0 cause concerns for the integrity of our food supply, both under the LGMA and FSMA; extensive revisions to food safety measures due to recent foodborne illness outbreaks has farm operations struggling to ensure that every effort is

[23] United States Army Corps of Engineers "Levee Safety Update" Volume 3, Issue 1, dated January/February/March 2019, page 2.

AR-90 cont.

undertaken to ensure that our food is safely produced and handled. A recent article published in *California Agriculture* (a publication of the University of California, Agriculture and Natural Resources Division) articulates the history of recent foodborne illness outbreaks in the past three years.

AR-91

Part of this article describes the economic impacts that the foodborne illness outbreaks pose to farms, whether their product was involved in the U.S. Food & Drug Agency Advisory or not:

> "While there are small farm exemptions and exceptions in FSMA, small growers still have to comply with new monitoring, recordkeeping and reporting requirements as of January 2020. These requirements are difficult to understand, even to determine one's eligibility for an exemption. Altogether, compliance is more expensive for smaller farms than for large farms (Hardesty and Kusunose 2009; Karp, Baur et al. 2015). Although small growers are rarely implicated in foodborne illness outbreaks, they are subject to the regulatory consequences of a large outbreak and are confronted with barriers that may make small-scale production financially nonviable (DeLind and Howard 2008; Karp, Baur et al. 2015)."[24]

The complexities of food safety measures cannot be underestimated; in a region where fast turning fresh crops are produced (and mostly consumed raw), the number of sources for potential food contamination are exponential. The burden of managing food safety documentation and reporting confronts even the largest of the Central Coast region's farms. Small farms will be challenged to meet both the food safety requirements AND a new set of water quality requirements at the same time, especially when the FSMA requirements are not clearly spelled out, needing interpretation for some crops, and then water quality requirements with overly-involved plan development, complex calculations and recordkeeping are added into the mix.

AR-92

The article explores possible alternatives for small farms if they are forced to alter their operations:

> "Converting to an alternative crop is not necessarily a viable option to help these growers stay afloat. Many economic and experiential barriers make crop conversion a significant challenge, such as the lack of experience in growing alternative crops; the different equipment and labor needed; and the reality that alternate corps may not suite the local climate or soils, or the grower may be a land lessee with crop options limited by the landowner (Pollans 2017; Rodriguez et al. 2008). In addition, some buyer food safety policies have expanded buffer restrictions to crops that are not typically consumed fresh, such as grains, nuts and dried beans (Gennet et al. 2013)."[25]

Farming has become highly specialized due to innovation, technology, and production practices developed and sharpened over multiple decades for each crop produced. It is unreasonable to expect that any farming operation will abruptly shift to another crop when faced with an economic disaster. Instead, there will probably be more farm failures as costs overwhelm operational capital and rapid change to another crop is hindered by lack of production knowledge and practices, as well as investment in equipment and technology.

Page 19

[24] "Hasty Responses to Foodborne Illness Outbreaks Impact California Growers," *California Agriculture*, January – March 2020, Volume 74, Number 1, page 7.
[25] Ibid.

AR-93 In our increasingly litigious society, any food adulteration generates numerous lawsuits; many of these are filed as class action suits against growers, their processors and shippers, as well as harvesting operations. The risk of financial ruin is very real for any size farm should a foodborne illness outbreak be traced back to their farm or ranch. Indeed, there are several instances where incidental outbreaks have resulted in excessive financial liability and even bankruptcy for farming operations.

AR-94 Compliance costs for food safety have increased considerably in the past decade:

> "Most of these changes in regulatory costs are due to new food safety or labor water, health and safety laws. The most notable increases in regulatory costs are for food safety, as a result of the Leafy Greens Marketing Agreement and the Food Safety Modernization Act…"[26]

When forced into a choice of multiple layers of complex regulatory reporting and compliance, small farms will be in the unenviable position of choosing between food safety and water quality compliance … simply because the resources available cannot handle the responsibility load and management costs of both. Small farms don't have the financial resources to carry the full burden of the complete set of regulatory requirements from two complex (and often competing) mandated programs.

AR-95 We see that food safety considerations will compete with the additional burden of water quality compliance requirements and overwhelm small farm management operations. The unintended consequence of this may be that many small farms in the Central Coast region will be unable to keep pace with the expanding list of compliance requirements, and therefore, fail to implement new on-farm practices that would improve either food safety *or* water quality.

Composting

AR-96 Significant new language in the draft Ag Order 4.0 addresses on-site compost production and application. We see this as a disincentive to compost waste materials on-site and, instead, will drive more farms to reduce their compost production and use:

> "Dischargers must manage the application of water to compost (including from precipitation events) to reduce the generation of wastewater"[27]

> "Working surfaces must be designed to prevent, to the greatest extent possible, ponding, infiltration, inundation, and erosion, notwithstanding precipitation events, equipment movement, and other aspects of the facility operations"[28]

Water is a critical element in the composting process and should not be allowed to create a nuisance discharge; however, control over precipitation events may be much more difficult to achieve. Control of any precipitation will require a retention basin to capture any flows during storm events, or a conveyance to an existing retention basin. This cost would be a disincentive

Page 20

[26] A Decade of Change: A Case Study of Regulatory Compliance Costs in the Produce Industry, Lynn Hamilton & Michael McCullough, CalPoly San Luis Obispo, December 2018, page 22.
[27] WDR Document, Part 2, Section D., #21.d., page 50.
[28] WDR Document, Part 2, Section D., #22.e., page 51.

AR-96 cont.

for any farm doing on-site composting. Further, the requirements seem to suggest that an impermeable surface should be constructed for all on-site composting operations, to avoid infiltration and inundation.

AR-97

The following is further disincentive of on-site composting disincentive for quickly rotating crops of the Central Coast region:

> "Dischargers must maintain the following records in the Farm Plan. These records must be submitted to the Central Coast Water Board upon request.
>
> i. Total operational footprint of compost activities (in acres), including ancillary activities;
>
> ii. Compost operation records to provide background information on the composting operation history and a description of methods and operation used, including the following: feedstock types, volumes, sources, and suppliers. Description of the method of composting (e.g., windrow, static, forced air, mechanical). Description of how residuals are removed from the feedstocks and managed and/or disposed of.
>
> iii. Description of water supply.
>
> iv. Map detailing the location and size (in acres) of the working surface used for the storage of incoming feedstocks, additives, and amendments (receiving area); active and curing composting; final product; drainage patterns; location of any groundwater monitoring wells and water supply wells within and/or near the property boundary; location and distance (in feet) to nearby water supply wells (e.g., municipal supply, domestic supply, agricultural wells) from the nearest property boundary of the operation; identification of all surface waterbodies, including streams, ditches, canals, and other drainage courses; and distances from the nearest property boundary of the operation to these surface waterbody areas.
>
> v. Records of appropriate monitoring (dependent on method of composting) for composting to develop final product (temperature, turning, air flow, etc.).
>
> vi. Records of final product use, including locations and volumes."[29]

These substantial record keeping requirements will overwhelm any farm attempting to keep track of on-site composting operations, thus becoming a strong disincentive to generate compost for vertically integrated crop production operations. Instead, use of compost, including on-site compost generation when possible, should be managed for the environmental benefits achieved through such a process, including reduction of the carbon footprint when transporting such material and the carbon and nitrogen sequestration in soils.

AR-98

Requirements for on-site compost production seem counter intuitive and will become a disincentive for farm operations.

AR-99

Groundwater Trend Monitoring

We find that individual farm groundwater trend monitoring and reporting will be very difficult (and expensive) for most farms to achieve. First, groundwater moves around in the aquifer on its own (basic hydrology) and any particular farm or parcel cannot guarantee that on-farm practices to improve groundwater quality will really show up in their trend monitoring directly

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[29] WDR Document, Part 2, Section D., #21.f., page 51.

below their farm. This type of trend monitoring and reporting is too subjective to be done on an individual farm basis.

AR-99 cont.

Thus, we support the cooperative effort as outlined in the draft Ag Order 4.0, preferably by priority sub-watershed where possible. Only through cooperative monitoring and data sampling collection will it be possible to accurately determine if the groundwater quality is trending towards improvement in sub-basins identified as impaired. Incentives should be included in the cooperative effort to encourage participation in this effort; that could be in the form of regulatory relief from other groundwater reporting requirements or a modified ACF process.

AR-100

This will be an expensive undertaking for most farming operations just to develop a trend monitoring plan, even with a cooperative effort. The draft Ag Order 4.0 fails to recognize this consideration and lacks the incentives for landowners and farm operators to participate cooperatively to reduce these costs. Regional Water Board staff appears to recognize there are significant costs involved in this type of trend monitoring:

> "It is not possible to predict the total cost of groundwater trend monitoring, tracking, and reporting under Ag Order 4.0. The number of Dischargers who select a cooperative versus individual approach is unknown, and the requirements and associated costs are different depending on the approach selected. In general, it is expected that performing groundwater trend monitoring as part of a cooperative would provide economies of scale and therefore result in significantly less cost to Dischargers."[30]

AR-101

It is important that Ag Order 4.0 recognizes these challenges and should include incentives for the cooperative groundwater trend monitoring option if this type of reporting is to be successful. We assert that a regional or sub-basin approach will have the best possible outcome for improving groundwater quality.

Sediment & Erosion Management Plans (SEMP)

We express concern with the discharge requirements for ranches with impermeable surfaces, defined as:

AR-102

> "Impermeable Surfaces. Plastic-covered surfaces that do not allow fluid to pass through, including polyethylene mulch and hoop houses. For the purposes of this Order, impermeable surface does not refer to relatively impermeable soils.[31]
>
> Dischargers with impermeable surfaces on slopes equal to or greater than 5% during the wet season (October 1 to April 30) must have a sediment and erosion control plan developed and certified by a qualified professional (defined in Attachment C of this Order)."[32]

This definition mainly applies to berries (strawberries and cane berries, including blueberries). Many of these crops are produced on fields with slopes of 5% or more, including both organic and conventional production. The production of these crops requires specific uses of plastic mulch for protection, either from weather, fowl, or disease and pests. These crops are part of

Page 22

[30] Attachment A, Section 20.e., page 19.
[31] Attachment C, Definitions, Item 52, page 13.
[32] DWR Document, Part 2, Section C-4, #9, page 37.

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AR-102 cont. the larger crop rotation pattern that occurs in the Central Coast region between leafy greens and vegetables; this crop rotation is important to soil health and has been in use for multiple decades because it is effective in controlling soil-borne pests and diseases in these crops.

AR-103 Investment in resources and funds in developing a short-term SEMP for a berry field will be prohibitive. This will discourage production of these crops as part of the rotation (on average, two years of strawberries followed by a year of a leafy green, then a year of vegetables); thus, this requirement will add significant costs to preparation and establishment of a rotational berry field, currently the most expensive of all field crop preparation and investment.

AR-104 Moreover, the requirement for SEMP will exasperate costs for berry growers and will, ultimately, drive more production out of the Central Coast region. This, in turn, will have an unintended consequence on crop rotation and soil health, promoting more soil-borne pests and diseases. We see this SEMP requirement as a possible elimination of a critical crop in the rotation of field management throughout the region.

AR-105 Stormwater controls proposed in the draft Ag Order 4.0 present new challenges for these farms and ranches:

> "Stormwater discharge volume from ranches with impermeable surfaces must not exceed stormwater discharge volume from equivalent permeable area for any storm event up to and including the 95th percentile, 24-hour storm event."[33]
>
> "Where a project is located determines the absolute volume and/or intensity of a storm they will be required to design for, called the design storm. The Central Coast PCRs require mitigation of runoff volumes for the 95th percentile, 24-hour storm and mitigation of peak runoff intensity for the 2 through 10-year storm from impermeable surfaces."[34]

This seems to indicate that landowners will need to construct retention basins to manage storm flow to the noted level in any 24-hour period. While this may be a noble target, in reality it becomes a very expensive proposition for landowners (who will pass these costs along to their farm operators; leasehold rotations will prohibit farm operators from making these investments themselves). At what capacity are these retention basins expected to be constructed if there are multiple or frequent storm events in a short period of time? Retention basins will also reduce available production areas, require significant engineering and construction, most likely will need to be lined or have other methods to avoid percolation and groundwater infiltration, and will be utilized only infrequently. This seems like a very unnecessary expense when storm weather cannot be adequately predicted within any 24-hour period.

AR-106 > "Dischargers who utilize containment structures (such as retention ponds or reservoirs) to achieve treatment or control of the discharge of waste must manage, construct, and maintain such containment structures to avoid discharges of waste to groundwater and surface water that cause or contribute to exceedances of water quality objectives or impairment of beneficial uses. Dischargers may choose the method of compliance appropriate for the individual ranch, which may include, but is not limited to:
> a. Implementing chemical treatment (such as enzymes);

Page 23

[33] DWR document, Part 2, Section C.4, #8, page 37.
[34] Attachment A, Section C.4, Item #34, page 164.

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b. Implementing biological treatment (such as wood chips);
c. Recycling or reusing contained water to minimize infiltration or discharge of waste;
d. Minimizing the volume of water in the containment structure to minimize percolation of waste; and/or
e. Minimizing percolation of waste via a synthetic, concrete, clay, or low permeability soil liner."[35]

AR-106 cont.

How will stormwater run-off be calculated and analyzed for the purpose of enforcement of this provision? What is the expectation that reporting of stormwater run-off during multiple or frequent events will be reported accurately on an ACF? If landowners and growers are to measure these storm events as they occur, will the Regional Water Board indemnify the employees (and their employers) who place themselves in hazardous situations to measure these flows? How will load be measured from stormwater discharges? Most instances of flash-flooding occur quickly, in short downbursts, that are often not predicted or anticipated. We cite the recent flooding event that occurred near Chualar in the Salinas Valley that caught nearly everyone by surprise, including CalTrans. How will these events be monitored and how will growers be expected to plan in advance for this type of downburst?

AR-107

Impacts by stormwater controls and retention will have widespread effects on groundwater percolation, and specifically groundwater dilution by infiltration. There are really only two ways to improve groundwater quality; pump and fertilize, and replacement through dilution by infiltration. Control and retention of stormwater appears to be counter intuitive to improving groundwater quality, if that is the overall objective of the draft Ag Order 4.0.

AR-108

Therefore, we request that this provision for stormwater control be removed from the WDR and MRP requirements. We find this provision is largely not implementable on a farm level and has less certainty for improving water quality relative to the amount of expense involved to predict and control the stormflows.

AR-109

While we admit that there are concerns related to the use of agricultural plastics in on-farm practices, we find that the benefits to crop production outweigh the few instances where significant flow or erosion events might occur. Instead of requiring a specific level of flow control or reduction during storm events, we suggest that on-farm practices be identified in the farm plan document, as each individual farm parcel will have differentiating characteristics.

Sources of Contamination Not Attributable to Agriculture

AR-110

California's laws and regulations related to the application and use of agricultural chemicals are arguably the strictest in our nation. Not only do these chemicals come under federal scrutiny for product labels and appropriate use rates, the State requires its own independent approval process and labeling review. Monthly reporting of chemical applications is required of all farms and ranches, submitted directly to the County's Agricultural Commissioner for review and compliance of the application rates and crop appropriateness.

AR-111

We find that limitations beyond what the State of California's Department of Pesticide Regulation (DPR) specifies are duplicative, unnecessary and unlawful. Extensive review of all agricultural

[35] WDR Document, Part 2, Section D., #10, page 49.

AR-111 cont.

chemicals is undertaken by DPR to ensure public health and safety, as well as environmental protections; this should be the only regulatory threshold.

AR-112

Thus, we find continued restrictions on the use of agricultural chemicals, as proposed in the draft Ag Order 4.0, are unwarranted. The legal application of an agricultural chemical under DPR regulatory requirements should be recognized as the threshold for compliance when considering overall us of those chemicals. Instead, there are many other sources where contamination from chemicals are not being fully assessed or evaluated for the contributions to both surface and groundwater.

AR-113

Recent studies have focused on the use of neonicotinoids (neonics) in agricultural production; one example of other sources of discharges we cite here is the use of this class of chemicals in pet products. DPR recently requested that the Office of Pesticide Programs in Washington, D.C., consider these uses:

> "While the Agency acknowledges that "spot-on uses...present the potential for prolonged exposure via a continuous source and frequent contact" (EPA-HQ-OPP-2008-0844, p.16), pet spot-on products are not considered for mitigation within the neonicotinoid PIDs. Spot-on products may be a major contributor of neonicotinoids entering the waste stream and, by extension, require consideration for purposed mitigation. Our work has shown that the use pattern of spot-on treatments results in measurable residues from routine pet washing from the recommended initial no-wash period of two days to the expected time of next application of 28 days (Teerlink et al, 2017a)."[36]

While pesticide contamination remains a valid area of concern, in this case of neonics there is substantial cause for concern from sources beyond agricultural uses that should be focused on for surface and groundwater exposures. The draft Ag Order 4.0 does not address any of these potential sources for contamination; only a cursory statement is made about other sources:

> "Data on current commercial application of pesticides indicate that neonicotinoid and pyrethroid pesticide use in the central coast region and statewide is generally increasing in urban and agricultural areas. These pesticides have been detected at toxic levels at a number of locations in the central coast region in recent years."[37]

AR-114

DPR goes on to make several recommendations concern labeling of agricultural chemicals and monitoring for surface water discharges. We find that most of these are reasonable and within the current on-farm practices and regulations of allowed chemical applications; thus, it appears that the Regional Water Board needs to carefully consider other sources of chemical contaminations before limiting agricultural applications; the unintended consequences could be loss of crops, expanded incursions of exotic pests, and a wider spread of viruses and molds in various vegetable crops.

[36] "US. Environmental Protection Agency Pesticide Registration Review; Proposed Interim Decisions for Several Neonicotinoid Pesticides..." as subject of letter from CA Department of Pesticide Regulation to Office of Pesticide Programs, authored by Edgar Vidrio, Chief of Environmental Monitoring Branch, May 1, 2020, page 4.

[37] Attachment A, C.3, Item #19, page 144.

New Technologies and Innovation

We note that the draft Ag Order 4.0 makes little reference to new and evolving technologies that will improve irrigation efficiency, nutrient management, and on-farm practices for water quality improvements. This is a bit surprising as the Salinas Valley area of the Central Coast region has become the focal point for these new technologies; each year for the past five years, Forbes has held their annual Ag Tech Summit in Salinas, where entrepreneurs with concept-proven technologies and services are featured. Salinas Valley farmers are well known for their early adoption of new practices and technologies and continue to seek new on-farm management tools to improve efficiency.

AR-115

However, we caution that there should be no assumption that new regulation will drive technology innovation. Farming practices are so complicated and intricate that no one simple engineering or technology solution will yield the expected regulatory results; nor will technology and farming practices evolve quickly enough to respond to the various timetables for compliance.

In Monterey County, irrigation use has decreased 15% in the past 20 years while yield values have increased over 45% in the same time period, and irrigated acreage has increased.[38] This shows that irrigation efficiency is consistently improving as farm operations adopt micro irrigation, soil moisture sensors, weather data stations, and other technologies as on-farm practices.

In recent years, research projects have yielded new technologies and services that are working to improve on-farm efficiencies for water and nutrients. We support the local University of California farm advisor's tool CropManage to aid growers helping to managing irrigation cycles for a number of crops. Briefly, CropManage allows ranch managers to open an individual account for each field (or ranch) and then enter information on when and how much irrigation and fertilizer is used; the software quickly uses weather data and University of California research to provide suggested management recommendations.

Technology such as CropManage should be encouraged and incentivized when appropriate; the incentive for new technology adoption should be some form of regulatory relief, such as in ACF reporting, INMP, or farm plan requirement reductions.

Innovation should be rewarded, not penalized, as has been experienced in prior iterations of the Central Coast Ag Order. We prefer investments in technology and innovation rather than farm-based expenditures on monitoring and reporting requirements.

Research Needed on Agronomics

AR-116

Page 26

The Central Coast region's crop production is quick turning and intensified agriculture. Very few places in the country, indeed the world, have the combinations of soils, water, and climate that make vegetable and berry crop production nearly a year-round endeavor. Crop rotations and production cycles have been refined over the past century when irrigation changed the paradigm for commercial crop production; all along this timeframe, the best agronomic science

[38] Compilation and analysis of Monterey County Water Resource Agency annual groundwater extraction reports, available on-line at https://www.co.monterey.ca.us/government/government-links/water-resources-agency-old/documents/groundwater-extraction-summaries#wra

of the time was utilized and helped to increase yields, reduce irrigation water use, and minimize environmental impacts.

AR-116 cont.

Nutrient and irrigation targets/limits asserted in the draft Ag Order 4.0 will require additional agronomic research into new production practices, improved fertilization uptake, varieties that require less irrigation water for maturity, and soil health science to support continued farming year-after-year.

AR-117

While much of this research is conducted through public institutions such as the University of California Cooperative Extension, current funding and budget challenges will limit the ability of these public research institutions to provide this on-going and needed effort. Pests and diseases will continue to interrupt production cycles, and growers are only one exotic pest or disease away from a complete food production crisis in any given crop. We have many examples of how exotic pests and diseases have impacted California crops; citrus trees are being devastated by huanglongbing (citrus greening disease) and grapevines have seen widespread impacts from Pierce's Disease over the past decade or more.

AR-118

New production practices and crop protection tools will be necessary if the challenges of the draft Ag Order 4.0 are to be met, even in the extended compliance milestones delineated. Time is against us all in this regard.

AR-119

We suggest that Regional Water Board staff should work with both public and private research institutions to address any expanded pathways to water quality compliance that the draft Ag Order 4.0 mandates over the next two or more decades. The agricultural sector will not have enough funding available to do all this research on their own and public agency funding is always in doubt and will continue to be constrained post pandemic.

AR-120

Establishment of a research grant funding process should become a top priority by the Regional Water Board during the implementation of Ag Order 4.0, if adopted. This could be a robust program that collaborates across all stakeholders to find opportunities for progressive research projects oriented towards Central Coast region specialty crops, on-farm practices that are implementable on a broad scale, and promote sustainable farming investments. The Regional Water Board is in a unique position to bring together various stakeholders and identify all possible funding mechanisms available; all stakeholders should come to the table with their concepts but also their available resources; we suggest this needs to be a shared responsibility.

AR-121

<u>Sustainable Groundwater Management Considerations</u>

With the enactment of the Sustainable Groundwater Management Act (SGMA) in 2015, multiple new agencies have been established in the Central Coast region to manage groundwater under a new paradigm of regulatory requirements. The sustainable use of groundwater must be achieved in the coming 20 years, with milestones and important reviews at intervals in that time frame. Several of these agencies have submitted their first groundwater sustainability plans (GSPs) in January of this year, and the remaining GSPs are due in January 2022.

These threshold plans propose practices, mitigations, and projects that can be implemented during the 20-year cycle of the GSP. In many cases, these plans include modeling of groundwater impacts that include groundwater recharge, either though infiltration or injection projects.

AR-121 cont.

It is widely surmised that irrigation of crops in the Central Coast region contributes to groundwater replenishment through infiltration; indeed, that is this program's context of limiting fertilizer applications that could cause nitrogen discharges to groundwater through infiltration. With the proposed draft Ag Order 4.0 provisions that will certainly impact the amount of irrigation water applied, has there been research or a study undertaken to determine impacts to groundwater replenishment rates and what impacts that could have on the GSP implementations?

AR-122

Over the course of the next 20 years, as the groundwater sustainability plans are implemented, additional replenishment projects will come on-line contributing to the groundwater basins of the Central Coast region. This will be 'clean' water and will help to improve any groundwater quality conditions through dilution and distribution. Should there be a milestone at some point during this program that assesses if SGMA replenishment projects are indeed contributing to improvements in groundwater quality? If so, should the nitrogen application targets be adjusted accordingly (on a basin-by-basin review)?

AR-123

The issue of multiple agencies with regulatory programs that have differing objectives may challenge not only stakeholders to achieve their objectives but those agencies themselves. Since SGMA groundwater sustainability plans have much longer implementation timeframes, this necessitates adjustments in the Ag Order program to keep goals and objectives congruent and achievable. Without this type of coordination between public agencies, the stakeholders will most likely be pushed to the middle with conflicting requirements that are unachievable at the farm or ranch level.

AR-124

Here in the Salinas Valley, seawater intrusion is by far the largest groundwater sustainability issue during the implementation of SGMA. To a large extent, balancing the groundwater basin and halting seawater intrusion relies on the underground flows of groundwater from inland to coastal zones (also known as the underground Salinas River). Infiltration of irrigation and storm water, along with replenishment projects, are anticipated to be part of that solution over time; the draft Ag Order 4.0 fails to recognize that on-going groundwater infiltration from all sources will be critical to achieving a sustainable groundwater supply.

AR-125

We suspect that not all considerations have been given to the importance of groundwater replenishment from irrigation applications and SGMA sustainability plans throughout the Central Coast region, particularly where irrigation water supplies are nearly entirely dependent on groundwater levels. This could then become a conflicting public policy issue when other agencies are attempting to achieve differing objectives in groundwater basins.

AR-126

There needs to be much more coordination with the various groundwater sustainability agencies to determine any unintended consequences of the draft Ag Order 4.0 that may occur with the implementation of GSPs by these agencies. Since each GSP is a separate, individually tailored plan to the respective groundwater basin, a one-size fits all approach to this process will not work well.

AR-127

<u>Economic Impacts</u>

Various scenarios of impacts to the agricultural sector are plausible due to the mandates of the draft Ag Order 4.0. This draft program will dramatically impact how fresh vegetables and berries are produced in the Central Coast region. The sentiment from most farm operations is that the limits (targets) are unrealistic based on 'what we know now' and the current farming practices

AR-127 cont. in place. We continue to note that Central Coast farm operations are the most progressive in the state, and indeed the nation, when it comes to on-farm practices, natural resource conservation, and irrigation management.

AR-128 Both the California Environmental Quality Act (CEQA) and the State Water Code require an economic analysis:

- From CEQA §21159 (3)(c): "The environmental analysis shall take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites."
- From Water Code §13141: "For an "agricultural water quality control program" total cost estimates and potential funding sources "shall be indicated."

AR-129 Our fear is that the economic impacts to our communities are not being fully represented or studies in this process. For instance, these questions come to mind:

- AR-130 What happens to farmworker jobs when production areas are reduced for riparian set-backs? Less production means less jobs, which could cause havoc with local municipal economies and the Central Coast economy in general.
- AR-131 If additional costs are expended for monitoring and compliance reporting, where do the corresponding effects of those extra expenditures reduce the ability to implement new on-farm practices?
- AR-132 What happens if land values decline due to reduced production capacity and yields? Will this promote more sales of prime farmland or conversion to other uses?
- AR-133 Will lower land values mean lower property tax evaluations, causing budget challenges to local municipalities and County government funding?
- AR-134 If cropping patterns are forced to change to fewer crop turns, how will those impacts be felt in the communities of the Central Coast?
- AR-135 Will small farms become financially and resource challenged to the point that they give up causing an increase in consolidations or land use changes?
- AR-136 What becomes of land that is outright abandoned? What are the economic and environmental impacts of abandonment?
- AR-137 For a region dependent on the economic success of agriculture, how will increased costs of compliance impact allied business expenditures and the economy supporting farm operations?

AR-138 What is proposed in the draft Ag Order 4.0 will substantially alter the economics of farming in the Central Coast region. We predict more production will leave the area (and, indeed, the State) for areas where lower costs of production and regulatory compliance are being offered. The Central Coast Water Board staff fails to offer any replacement model of how the landscape of the Central Coast region will change in the coming years if this draft Ag Order 4.0 is adopted and implemented region wide. What happens to all the agricultural lands that are idled by this economic model change? What land uses is the Central Coast Water Board staff envisioning will replace farmland use and how will these changes be absorbed into local communities where jobs will be lost and disadvantaged communities, dependent on agricultural jobs, will become more disenfranchised by regulatory restrictions?

AR-139 Page 29 Cumulative impacts of regulatory costs need to be fully considered when any new regulatory program is contemplated; California's intense regulatory environment has added complexity and a heavy burden of costs to all business operations, farming and ranching included, that are not

forced on the same operations in other states. These cumulative costs make locally produced crops and food items less competitive in the marketplace.

AR-139 cont.

> "This case study indicates that California agricultural producers face increasingly intensifying regulatory pressure, and as noted in this study, further regulations are yet to be implemented that may have serious implication for two necessary resources that are already in short supply – groundwater and farm labor. While California agriculture has thus far show resilience as regulations have escalated, the results of this study provide evidence that the regulatory burden has far surpassed production cost increases."[39]

AR-140

Cumulative impacts of complex regulatory structures at all levels (federal, state, regional, and local) confuse growers with multiple challenges attempting to meet all lawful expectations:

> "Federal regulatory requirements can be difficult enough for small business owners to navigate, but state and local regulations make matters even worse. State requirements are often more numerous and more demanding than at the federal level—imposing even more complicated or stringent requirements than analogous federal regimes or regulating matters not regulated by Congress. Local authorities often choose to go even further—even in those states notorious for imposing the most controversial and heavy-handed regulatory standards. Together these intertwined federal, state and local regulatory requirements present a formidable regulatory thicket. And every year the state and local regulatory thicket grows thicker. This is a cause of great concern, not just for the small businesses directly affected, but for everyone."[40]

AR-141

There has not been a full assessment of the economic impacts of the draft Ag Order 4.0 to allow this to move forward for adoption; we find the draft environmental impact report deficient in the economic analysis and impacts of the draft Ag Order 4.0 program. A program this transformative needs to be fully vetted economically to ensure that the Central Coast region is not put into an artificial economic slump or depression. We see this as a distinct possibility given the pressures of water quality objectives, pandemic recovery, FSMA implementation, SGMA challenges and future water availability limitations, and infrastructure needs to ensure that our dams, reservoirs, and water delivery systems are fully functional.

AR-142

Thoughtful Considerations for Irrigated Lands Regulatory Program Structure

The coalition of agricultural organizations is submitting a different approach to achieving water quality objectives (Ag Partner Submittal).[41] This includes a robust proposal on a third-party cooperative effort that will provide functions such as surface water cooperative monitoring and groundwater trend analysis; irrigation and nutrient management and an enhanced surface watershed program are also detailed along with other program parameters.

[39] A Decade of Change: A Case Study of Regulatory Compliance Costs in the Produce Industry, Lynn Hamilton & Michael McCullough, CalPoly San Luis Obispo, December 2018, page 26.

[40] Managing the Regulatory Thicket: Cumulative Burdens of State and Local Regulation, Regulatory Transparency Project; Anastasia P. Boden, Braden Boucek, Paul J. Larkin Jr., Clark Neily, Jonathan Riches, Lawrence VanDyke, and Luke A. Wake; January 2019, Page 7.

[41] "Ag Association Partners' Comprehensive Submittal, Including Redline Revisions to the General Order (Ag Partner Submittal)."

AR-142 cont.

The Ag Partner Submittal has been developed and brought before the agricultural community, as well as our technical advisory committee, for sound reasoning and vetting, and offers the best possible course for achieving water quality objectives; because these provisions and requirements are implementable on-farm and provide quantifiable milestones towards improvement, the agricultural community throughout Region 3 broadly supports the Ag Partner Submittal documents and supporting materials.

We ask that Regional Water Board members and staff give serious consideration to these regulatory program approaches as they provide a sound pathway to achieving water quality management that still allows for a productive working environment and farm financial viability.

AR-143

Conclusion

The broader perspective of this draft Ag Order 4.0 should focus on the impacts to production of fresh food items in the global perspective of pandemic and how we assure that our population continues to have a reliable domestic food supply that is safely produced and affordable. There appears to be a large disconnect between the importance of food production, and in particular, domestic food production where we know how it's grown and what food safety measures are undertaken compared to the value of implementing drastic water quality requirements that impact farmers' ability to produce that fresh food supply. We express deep concern that regulatory oversight is losing focus on the bigger picture, that of allowing the farming community to continue to provide the other 98% of the population with their dinner.

AR-144

While there are water quality issues that need to be addressed, there remains the fundamental question of how much current farming practices are contributing to the further degradation of groundwater resources. We suggest that these are mostly legacy issues from a period when the best agronomic knowledge was used at that time; current farm operations should not have to pay the price for the fault of those practices in hindsight. Current farming practices are far different from those of even 20 years ago; nutrient management has advanced to allow for better managed and targeted use partly due to the cost of the input and advances in agronomic science.

AR-145

The Central Coast has some of the most progressive and efficient farmers of anywhere in the world. We question the entire structure of mandating a regulatory program that will substantially alter that efficiency, risking the ability of farmers to produce our important daily dietary requirements of fresh vegetables, berries, and leafy greens.

AR-146

Agriculture, in general, is carrying the full burden of the costs of doing business as one of the most heavily regulated sectors of California's economy. Market challenges continue to depress margins, particularly for smaller farm operations. Other regulatory requirements related to labor and workplace rules, increasing minimum wage and overtime costs, health care, air quality regulations and equipment replacement mandates, employee health and safety post pandemic, and transportation expenses all add up to a depressed bottom line. If that bottom line is not positive, there won't be an agricultural sector to regulate for water quality or other environmental and marketplace mandates. Maybe that's the overall intent of this draft Ag Order 4.0; to ultimately eliminate farming as we know it on the Central Coast.

AR-147

Page 31

The past three months of the COVID-19 pandemic have upended our food supply system in ways previously thought unimaginable. Many farms have suffered significant financial losses due to shifting marketplace parameters, and many may report substantial losses for the tax

AR-147 cont. year as the finally tally of losses is known. In Monterey County alone, over 2,000 acres[42] of mature crops have been abandoned or plowed under; the stress on growers, processors, and shippers is immense. These losses indicate that farming operations will be structurally challenged for many years post-pandemic.

AR-148 The economics of farming are drastically and dramatically different than when the draft Ag Order 4.0 was released, and additional costs for management of compliance requirements may not be in the financial picture for the majority of farming operations. This new regulatory structure may just indeed be the straw that breaks the camel's back and forces many small farms out of operation; it would be a shame to see a regulatory structure decimate the productive agricultural environment that is unique to the Central Coast region. The pandemic has created a new era of financial uncertainty that may last for several years; adding additional costs to our food production supply chain is not beneficial for farmers nor consumers.

AR-149 We, as a society, are only nine meals away from food insecurity and uncertainty. If we have learned nothing else from the pandemic, our reliable, safe and affordable domestic food supply is paramount to our society being able to feed its residents. Creating a domestic food production shortage, artificially by regulation, forces more reliance on imported food products that is not in the best interest of our national security (noting that we cannot control how those foreign food products are produced nor the social equity of those workers who produce it). A society that is unable to provide its own residents enough food supplies, relying more and more on imports, is at the mercy of those who provide those imports. We see this draft Ag Order 4.0 as a threat to our domestic food supply of healthy daily dietary choices.

AR-150 The draft Ag Order 4.0 proposes to extend regulatory authority to the Central Coast Water Board that is not expressly supported in the Clean Water Act or the Porter-Cologne Water Quality Control Act, and goes well beyond the precedential mandates of the ESJ Order. Agricultural associations spent many hours in the past two years with Regional Water Board staff detailing the complexities of modern farming practices; this draft Ag Order 4.0 fails to recognize the improvements and achievements made on-farm towards the water quality objectives set out in prior iterations of the program.

AR-151 We urge extreme caution in these precarious economic times when adding additional burdens to the hardworking farmers that produce our healthy, fresh, safe, and affordable food supply.

On behalf of the Board of Directors of Monterey County Farm Bureau, sincerely,

Norman C. Groot
Executive Director

AR-152 [42] Monterey County Agricultural Commissioner's Survey of Growers for COVID-19 Losses, April 30, 2020; a copy is included as Attachment B to this comment letter.

Attachments

Attachment A. A Decade of Change: A Case Study of Regulatory Compliance Costs in the Produce Industry

Attachment B. Growers Survey Results

Note to Readers:

The materials provided in Attachments A and B have been omitted from this section because they do not contain specific comments on the DEIR or DAO 4.0.

These materials are provided in Section 3.3.

Response to Comment AR-1

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

Response to Comment AR-2

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

Response to Comment AR-3

Thank you for your comment.

Response to Comment AR-4

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

Response to Comment AR-5

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; and 2.4.1.

Response to Comment AR-6

Comment noted.

Response to Comment AR-7

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

Response to Comment AR-8

Comment noted.

Response to Comment AR-9

This comment is summarized and responded to in the following Master Responses: 2.8.8; 2.1.8; 2.2.2; 2.2.3; 2.5.10; and 2.7.3.

Response to Comment AR-10

The comment questions the ability of farms to find enough professional expertise to develop, update, and certify all or parts of the Farm Water Quality Management Plans (Farm Plans), as indicated in the requirements for compliance because the atmosphere towards consultants with professional credentials in crop, soils, and pest control is hostile and will probably not survive (in its current form) the implementation of AB5.

The Order requirements to have a qualified professional perform and certify certain work is to ensure that the portions of the Farm Plan, specifically the irrigation and nutrient management plan (INMP), completed by the professional meet current industry standards and will provide meaningful information. The purpose of the INMP is to promote sound irrigation and nitrogen management practices among growers and to inform irrigation and nitrogen application decisions that will minimize nitrogen discharges to surface water and groundwater (Order, page

20, paragraph 5.3). The commenter's concerns regarding the impact of Assembly Bill 5 on the availability of qualified professionals to perform and certify certain work to assist Dischargers with compliance of this Order is at this time speculative. As described in the Order Effectiveness Evaluation provision of the Order, the Central Coast Water Board will receive regular updates from its staff regarding implementation of the Order and may in the future consider changes, if warranted, to the requirement for a qualified professional to perform and certify certain work.

Response to Comment AR-11

This comment is summarized and responded to in the following Master Responses: 2.8.8; 2.1.8; 2.2.2; 2.2.3; 2.5.10; and 2.7.3.

Response to Comment AR-12

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

Response to Comment AR-13

This comment is summarized and responded to in the following Master Responses: 2.9.8; 2.1.15; 2.1.4; 2.2.1; and 2.3.1.

Response to Comment AR-14

This comment is summarized and responded to in the following Master Responses: 2.4.7 and 2.5.12.

Response to Comment AR-15

Comment noted.

Response to Comment AR-16

This comment is summarized and responded to in Master Response 2.3.7.

Response to Comment AR-17

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

Response to Comment AR-18

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

Response to Comment AR-19

Comment noted.

Response to Comment AR-20

This comment is summarized and responded to in Master Response 2.3.7.

Response to Comment AR-21

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

Response to Comment AR-22

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

Response to Comment AR-23

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

Response to Comment AR-24

Thank you for your comment.

Response to Comment AR-25

Thank you for your comment.

Response to Comment AR-26

Thank you for your comment. This comment is noted.

Response to Comment AR-27

Comment noted.

Response to Comment AR-28

Comment noted.

Response to Comment AR-29

Comment noted.

Response to Comment AR-30

Comment noted.

Response to Comment AR-31

Comment noted.

Response to Comment AR-32

Comment noted.

Response to Comment AR-33

Comment noted.

Response to Comment AR-34

Comment noted.

Response to Comment AR-35

Comment noted.

Response to Comment AR-36

Comment noted.

Response to Comment AR-37

Comment noted.

Response to Comment AR-38

Comment noted.

Response to Comment AR-39

Comment noted.

Response to Comment AR-40

Comment noted.

Response to Comment AR-41

Comment noted.

Response to Comment AR-42

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

Response to Comment AR-43

Thank you for your comment. This comment is noted.

Response to Comment AR-44

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

Response to Comment AR-45

This comment is summarized and responded to in the following Master Responses: 2.9.8; 2.9.1; 2.1.5; 2.1.4; and 2.3.1.

Response to Comment AR-46

This comment is summarized and responded to in the following Master Responses: 2.9.8; 2.9.1; 2.1.5; 2.1.4; and 2.3.1.

Response to Comment AR-47

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

Response to Comment AR-48

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

Response to Comment AR-49

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

Response to Comment AR-50

The comment expresses concern that the cost estimates in the DAO 4.0 do not take into account the increases in costs over the duration of the program. In response to concerns related to cost considerations associated with complying with the DAO 4.0, refer to Master Response 2.9. In response to comments related to the DEIR's analysis of economic impacts, including CEQA Guidelines compliance requirements and the adequacy of the EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-51

Thank you for your comment. This comment is noted.

Response to Comment AR-52

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

Response to Comment AR-53

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

Response to Comment AR-54 through AR-72

This comment is responded to in Master Response 2.8.8.

Response to Comment AR-73

The comment expresses concern that riparian setbacks would increase fuel loads for potential wildfires. Please note that the RAO 4.0 does not include the riparian or operational setback components. This comment is further responded to in Master Response 2.8.8.

Response to Comment AR-74 through AR-76

This comment is responded to in Master Response 2.8.8.

Response to Comment AR-77

The comment expresses concern that riparian setbacks may cause conflict with Williamson Act contracts. Please note that the RAO 4.0 does not include the riparian or operational setback components. This comment is further responded to in Master Response 2.8.8.

Response to Comment AR-78 through AR-95

This comment is responded to in Master Response 2.8.8.

Response to Comment AR-96

Comment noted.

Response to Comment AR-97

Comment noted.

Response to Comment AR-98

Comment noted.

Response to Comment AR-99 through AR-101

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

Response to Comment AR-102

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

Response to Comment AR-103

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

Response to Comment AR-104

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

Response to Comment AR-105

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

Response to Comment AR-106

Comment noted.

Response to Comment AR-107

Comment noted.

Response to Comment AR-108

This comment is summarized and responded to in Master Response 2.7.6.

Response to Comment AR-109

Comment noted.

Response to Comment AR-110 through AR-114

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

Response to Comment AR-115

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

Response to Comment AR-116

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

Response to Comment AR-117 through AR-120

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

Response to Comment AR-121

Comment noted.

Response to Comment AR-122

Comment noted.

Response to Comment AR-123

Comment noted.

Response to Comment AR-124

Comment noted.

Response to Comment AR-125

Comment noted.

Response to Comment AR-126

Comment noted.

Response to Comment AR-127

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

Response to Comment AR-128

The comment states that both the CEQA and the State Water Code require an economic analysis: "The environmental analysis shall take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites." (CEQA §21159 (3)(c)). For an "agricultural water quality control program" total cost estimates and potential funding sources "shall be indicated." (Water Code § 13141.)

In response to comments related to the DEIR's analysis of economic impacts, including CEQA Guidelines compliance requirements and the adequacy of the EIR's approach for impact analysis, please refer to Master Response 2.10.

Water Code section 13141 only applies to an agricultural water quality control program that is adopted within a water quality control plan and not through a permitting action such as this Order. (See In the Matter of Review of Waste Discharge Requirements General Order No. R5-2012-0116 for Growers within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group, State Board Order WQ 2018-0002, at 10). The Central Coast Water Board

is not required to conduct the analysis described in Water Code section 13141 in the adoption of this Order. The Central Coast Water Board has taken into account other economic considerations in accordance with Water Code section 13241.

Response to Comment AR-129

The comment expresses concern that economic impacts to the community have not been fully represented or studied. In response to concerns related to cost considerations associated with complying with 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 EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-130

The comment expresses concern regarding riparian setbacks. Please note that the RAO 4.0 does not include the riparian or operational setback components (see Master Response 2.8.8). In response to concerns related to cost considerations associated with complying with DAO 4.0, refer to Master Response 2.9.1.

Response to Comment AR-131

The comment questions whether additional compliance costs may result in a reduction in growers' ability to implement new on-farm practices. In response to the comment, please refer to Master Response 2.9.1.

Response to Comment AR-132

The comment questions whether reduced capacity or yield may result in farmland sale or conversion to other uses. 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 EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-133

The comment questions whether lower land values may result in lower property tax valuations, therefore harming local government budgets. 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 EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-134

The comment questions whether reduced crop production may impact the local community. 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 EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-135

The comment questions whether small farms may go out of business, creating consolidations or land use changes. 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 EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-136

The comment questions whether there might be economic impacts dues to abandonment of farmland. 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 EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-137

The comment questions whether increased compliance costs may impact the economy that supports farm operations. 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 EIR's approach for impact analysis, please refer to Master Response 2.10.

Response to Comment AR-138

The comment expresses concern that DAO 4.0 will have impacts on farming economics in the Central Coast region, including job loss and idling of farmland. In response to concerns related to potential adverse economic impacts from DAO 4.0, refer to Master Response 2.9.1.

Response to Comment AR-139

The comment states that the cumulative impacts of regulatory costs should be considered when a new regulatory program is contemplated. The comment is noted. In response to concerns related to potential adverse economic impacts from DAO 4.0, refer to Master Response 2.9.1.

Response to Comment AR-140

The comment notes that complex regulatory structures at all levels (federal, state, regional, and local) can be confusing for growers. The comment is noted. In response to concerns related to cost considerations associated with complying with DAO 4.0, refer to Master Response 2.9.1.

Response to Comment AR-141

The comment expresses concern that the DEIR is deficient in its economic analysis of economic impacts. In response to comments related to the DEIR's analysis of economic impacts, including CEQA Guidelines compliance requirements and the adequacy of the EIR's approach for impact analysis, please refer to Master Response 2.10. In response to concerns related to cost considerations associated with complying with DAO 4.0, refer to Master Response 2.9.1.

Response to Comment AR-142

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

Response to Comment AR-143

Thank you for your comment. This comment is noted.

Response to Comment AR-144

Thank you for your comment. This comment is noted.

Response to Comment AR-145

Thank you for your comment. This comment is noted.

Response to Comment AR-146

Thank you for your comment. This comment is noted.

Response to Comment AR-147

Thank you for your comment. This comment is noted.

Response to Comment AR-148

Thank you for your comment. This comment is noted.

Response to Comment AR-149

Thank you for your comment. This comment is noted.

Response to Comment AR-150

The comment generally states that the DAO 4.0 proposes to extend regulatory authority to the CCWB that is not expressly supported in the Clean Water Act or the Porter-Cologne Water Quality Control Act, and goes well beyond the precedential mandates of the ESJ Order and that the DAO 4.0 fails to recognize the improvements and achievements made on-farm towards the water quality objectives set out in prior iterations of the program.

This comment does not specifically identify how the CCWB exceeded its authority; however, the Findings and Responses to Comments discuss the legal and policy rationale for the Order's requirements, including, but not limited to, Master Response 2.3.3, Nitrogen Discharge Limits (Oppose) and Master Response 2.3.10, Fertilizer Application Limits.

Response to Comment AR-151

Thank you for your comment. This comment is noted.

Response to Comment AR-152

Thank you for your comment. Note that materials provided by the commenter as attachments (i.e., Attachments A and B) have been omitted from this section because they do not contain specific comments on the DEIR or DAO 4.0. These materials are provided in Section 3.3.

Letter AS: Kim Stemler, Monterey County Vintners Growers Association (June 19, 2020)

Letter AS

From: Kim Stemler
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Friday, June 19, 2020 5:57:52 PM
Attachments: AG ORDER 4 MCVGA COMMENTS 6.19.20.final.pdf

EXTERNAL:

Hello Executive Officer Keeling,
Attached are the comments submitted on behalf of the vintners & growers of Monterey County. Thank you.

Warm Regards,
Kim Stemler, Executive Director
Monterey County Vintners & Growers Association
www.MontereyWines.org 831.375.9400
Kim@MontereyWines.org 831.915.6621 (c)

Monterey WINE COUNTRY
MONTEREY COUNTY VINTNERS & GROWERS

June 19, 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: Vineyard coalition comments on draft Agricultural Order 4.0

Dear Executive Officer Keeling,

AS-1

On behalf of the vintners and growers of Monterey County, we thank you for the opportunity to comment on the draft Agricultural Order 4.0.

Formed in 1973, the Monterey County Vintners & Growers' Association (MCVGA) brings together the talents and resources of winegrowers, winemakers and our extended community to promote and support leadership in the art, science, and business of winegrowing and winemaking. Monterey County cultivates approximately 45,000 acres of wine grapes, representing about 7% of California vineyards.

AS-2

PRIOR COMMENTS

We previously commented on the Conceptual Regulatory Requirement Options in January 2019, and those comments are appended for ease of reference.

In our January 2019 comments, we noted that a significant percentage of vineyard acres in the Monterey County and Central Coast winegrowing regions 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 reduce the regulatory burden of certified operations under an Agricultural Order 4.0.

AS-3

SUPPORT PARTNERS COMMENTS

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, we also support the ideas presented in the comments submitted by the broader agricultural coalition and do not directly comment on many of the issues they address. Refer to: Ag Association Partners' Comprehensive Submittal, Including Redline Revisions to the General Order (Ag Partner Submittal).

ECONOMIC ENVIRONMENT

It is essential 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 sales[1] The estimated loss in Monterey County is $62 million. These expected losses will impact the ability of grape growers to invest in water quality improvements.

AS-4

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 2017[2]. 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.

In addition to the recognized increase in regulatory costs for growers in Monterey County, additional costs have been 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 Monterey County growers.

RANCH-LEVEL SURFACE DISCHARGE MONITORING

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

AS-5

Discharger could be required to implement ranch-level monitoring 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. *Dischargers Should Not Be Required to Conduct Groundwater Discharge Monitoring if Not Exceeding the Order's Final Nitrogen Limit.*

AS-6

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).

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

[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:

2

AS-6 cont.

evidence that implementing this enhanced monitoring will provide tangible benefits to water quality.

Groundwater quality improvements are known to lag significantly behind management practice improvements, sometimes on the Order of decades. A groundwater impaction 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.

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.

AS-7

2. *Dischargers Should Not Be Required to Conduct Ranch-Level Surface Discharge Monitoring When They Can Demonstrate No Potential to Contribute to the Specified Exceedance*

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."

We understand that the "surface water quality conditions" on which the Executive Officer would decide to require an operation to implement ranch-level monitoring are regional conditions as determined by the local cooperative monitoring effort.

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.

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 in use at the property), information about the flow of water across the property (e.g., a technical demonstration that stormwater or irrigation runoff does not reach a surface water body), or similar means.

AS-8

3. *The Order Should Adopt Specific Guidelines and a Review Process for Determining Whether Ranch-Level Surface Discharge Monitoring is Justified.*

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.

3

AS-8 cont.

For each ranch that the Executive Officer may require to implement ranch-level monitoring, this process should include, at a minimum,

a. Consideration of whether the ranch is a member 'in good standing' of a cooperative monitoring program,
b. Consideration of whether the ranch participates in a voluntary sustainability certification program,
c. Consideration of whether a ranch has the potential to discharge the constituent posing a risk to the affected water body.
d. Review of Farm Plan documents, including:
    a. best management practices,
    b. reporting on discharge characteristics,
    c. (where applicable) reporting on chemicals or materials used,
e. Consideration of property characteristics that may impact the likelihood of impacts to surface water, including:
    a. Discharge pathways through the property
    b. Relevant geographic characteristics such as slope, proximity to waterways, etc., and
    c. Crops grown and other agronomic characteristics that impact how applied nutrients, applied chemicals, and sediment are anticipated to flow through the property

The Executive Officer's review process should be standardized and implemented in an open, transparent manner. 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.

AS-9

SUSTAINABILITY PROGRAMS

1. *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 undoubtedly provide the critical 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 acknowledgment and incentivization of these important on-the-ground programs in the Draft Order.

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. 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.

4

AS-9 cont.

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 satisfy the Order's Farm Plan requirements.

AS-10

SMALL ACREAGE EXEMPTION OR MINIMUM REGISTRATION REQUIREMENT

1. *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. They will, therefore, need to hire outside assistance at potentially considerable cost.
Furthermore, due to the nature of winegrowing, most small vineyard operations are likely to pose a 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.

By requiring even the smallest vineyard operations in the Central Coast Region to comply with the full Order and its documentation requirements, the Board will create a significant burden on these small dischargers without a clear water quality benefit.

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.

We, therefore, recommend that the Ag Order 4.0 do one of the following, either:

a. Exempt all vineyards (and other appropriate permanent crops) under 5 acres in size from the requirements of the Order, or
b. 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.

If following Option B, 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.

AS-11

RIPARIAN OPERATIONAL SETBACK REQUIREMENTS

1. *The Board should narrow the operational setback requirements.*

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.

5

AS-11 cont.

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 Court[3] 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.

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 determine what operational setbacks might be required on their property, 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 a 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.

Therefore, we request that the Board provide stream maps and stream order information or other guidance documents that help identify operational setback requirements. This will assist ranches around the Central Coast region that have discharge potential and therefore, should have operational setbacks.

AS-12

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 usually 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.

AS-13

2. *Provide a Clarification or Specific Exemption Allowing Limited Use of Riparian Setback Areas for Farm Equipment Turnaround*

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.

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

6

AS-13 cont.

The current language included in the Order remains confusing on these points, and we would recommend changes to the language included 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. This requirement alone will result in significant lost revenue to many operations as a result of decreased production.

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 the staff's clarification in the workshops, the Draft Order's language prohibits the 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, for vineyard operations to continue.

We request amendments to the Order to ensure that it follows the 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.

AS-14

CONCLUSIONS

In conclusion, we appreciate the efforts the Central Coast Water Board has taken to engage the public, including a specific meeting for vineyards. We recommend an even further extension to the public comment period because of the additional demands placed on growers to prioritize workplace safety under the COVID pandemic.

Please do not hesitate to reach out if you have any questions.

Respectfully Submitted,

Kim Stemler

Kim Stemler
Monterey County Vintners & Growers Association
Kim@Montereywines.org
831.375.9400 or 831.915.6621

Response to Comment AS-1

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

Response to Comment AS-2

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

Response to Comment AS-3

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

Response to Comment AS-4

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

Response to Comment AS-5

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

Response to Comment AS-6

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

Response to Comment AS-7

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

Response to Comment AS-8

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

Response to Comment AS-9

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

Response to Comment AS-10

This comment is summarized and responded to in the following Master Responses: 2.9.8.; 2.1.7; 2.2.2; 2.3.10; and 2.4.3.

Response to Comment AS-11 through AS-13

This comment is responded to in Master Response 2.8.8.

Response to Comment AS-14

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

Letter AT: Lon Lanini, Nutrien Ag Solutions (June 19, 2020)

Letter AT

From: Lon Lanini
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order 4.0
Date: Friday, June 19, 2020 11:54:46 AM
Attachments: Ag Order.pdf

EXTERNAL:

Thank you,

Lon Lanini
Branch Manager

1143 Tervin Ave
Salinas, CA 93901
t 831-757-5391 c 831-594-9102
lon.lanini@nutrien.com

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Nutrien

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Nutrien
Ag Solutions

June 19, 2020

Irrigated Lands Program
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
AgNOI@waterboards.ca.gov

Subject: Comments on Draft Ag Order 4.0

AT-1 Thank you for the opportunity to comment on the proposed Ag Order 4.0. We are a distributor of both conventional and organic fertilizer located in Salinas, CA. Organically, we service a dozen growers on approximately 8,000 acres of vegetables within the Salinas Valley.

AT-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.

AT-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

AT-4 We are also supportive of the comments provided to the board regarding this proposed rule from True Organic Products, Inc.

Sincerely,

Lon Lanini
Branch Manager
Nutrien Ag Soluitions
1143 Terven Ave
Salinas, CA 93901
Lon.Lanini@Nutrien.com

1143 Tervin Avenue • Salinas • California • 93901 • USA / t 831-757-5391 / nutrienagsolutions.com

Response to Comment AT-1

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

Response to Comment AT-2 through AT-3

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

Response to Comment AT-4

This comment is noted.

Letter AU: Ramy Colfer and Michael E. Menes, True Organic Products (June 19, 2020)

Letter AU

From: Ramy Colfer
To: AgNOI, WB@Waterboards
Cc: Mike Menes
Subject: Comments on Draft Ag Order 4.0
Date: Friday, June 19, 2020 12:04:47 PM
Attachments: True public comment on Ag Order 4.0 FINAL 061820.pdf

EXTERNAL:

Dear Central Coast Regional Water Quality Control Board,

Please see True Organic Products public comment letter attached to this email.

Sincerely,

Ramy Colfer
VP, R&D
True Organic Products
831-206-5609

TRUE
ORGANIC PRODUCTS, INC

June 16, 2020

Irrigated Lands Program (ILP)
Central Coast Water Board,
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401.
Send Via Email: AgNOI@waterboards.ca.gov

Subject: Comments on Draft Ag Order 4.0

Dear Central Coast Regional Water Quality Control Board Members:

AU-1 Thank you for the opportunity to comment on the proposed Ag Order 4.0. True Organic Products is an organic fertilizer manufacturer headquartered in Monterey, CA and servicing the US including the Central Coast of California. We employ over 100 Californians with offices all over the state and a manufacturing facility located outside of Fresno, CA.

AU-2 This letter provides True Organic Products, Inc.'s comment to the changes proposed by the Central Coast Regional Water Quality Board (CCRWQB) to the proposed Ag Order 4.0. In summary:

AU-3
- Negative Impact to Organic Farms. Without change, Ag Order 4.0's proposed "Nitrogen Discharge Targets and Limits" compliance pathways will have a disproportionate negative impact on organic farming fertility programs and the long-term economic sustainability of organic farms on the Central Coast.

AU-4
- Support Inclusion of Compost to Compliance Pathways for Nitrogen Discharge. We support the modifications to "Nitrogen Discharge Targets and Limits" proposed by the CCRWQB to provide a nitrogen discount factor for compost which incorporates the nitrogen mineralization rates of different types of compost based on the carbon-to-nitrogen ratios.

AU-5
- Recommend Nitrogen Discount Factor for all Organic Amendments. All organic amendments (including compost and natural organic fertilizer), due to their carbon-to-nitrogen ratios are known to positively contribute to on-farm soil health, nutrient and carbon sequestration, and water holding capacity – which are goals of both the CCRWQCB and the organic farming community to be achieved on the Central Coast of California.

  We propose expanding the nitrogen discount factor concept to include all carbon-based organic amendments where nitrogen mineralization rates can be accurately predicted based on carbon-to-nitrogen ratios and a recent University of California, Davis peer reviewed research (Lazicki et al. 2020; Attachment #1).

AU-6

Organic Farming on Central Coast

Organic farming is very successful in California. Combined with the $15.5 billion value of organic processed products in 2019 as reported by the California Dept. of Public Health (CDPH), the organic sector in California is worth over $25.5 billion annually and growing every year. California organic acreage exceeded 5.6 million acres, with the majority of those acres planted to "other nut crops" (all nuts excluding almonds) at 2.7 million acres, beef cattle range at over 700,000 acres, and pome fruit (apples and pears) at 552,000 acres.(https://ccof.org/blog/california-organic-crop-sales-surpassed-10-billion-2018-new-cdfa-report-shows). Organic production is especially successful on the Central Coast where over 8% of Monterey County agricultural land is certified organic and even higher percentages in Santa Cruz and San Benito Counties. Indeed, over 30% of San Benito County's annual agricultural revenue comes from organically certified land (Monterey Co. 2018 Crops Report, Attachment #2; Santa Cruz Co. 2018 Crops Report, Attachment #3; San Benito Co. 2017 Crops Report, Attachment #4).

AU-7

Problem:

- CCRQWCB previously required that growers report the total pounds of nitrogen applied (TNA) per year, in fertilizer, soil amendments, and irrigation water. However, in contrast to conventional fertilizers where 100% of total nitrogen applied will be in mineralized forms during cropping cycle (as NH4 or NO3), only a fraction of total nitrogen applied in organic amendments (including natural organic fertilizer and compost) by organic growers is converted to mineralized nitrogen during the cropping cycle. Unlike conventional nitrogen fertilizer sources where nitrogen is soluble and in a mineralized form and readily available to crops, nitrogen in natural organic fertilizer is in crude proteins (and other biological molecules) and must be mineralized by the action of soil microbes before being available for crop uptake.

AU-8

The CCRQWCB has taken the beneficial step to allow compost mineralization rates to be used when calculating TNA amounts for compost applications (called compost discount rate C). However, the CCRQWCB has not extended this step for other carbon-based organic amendments such as natural organic fertilizers. This is very problematic because most organic growers on the Central Coast do not rely on compost for plant-available nitrogen due to multiple reasons: (1) Compost has very low mineralization rates and require high application rates to deliver adequate plant-available nitrogen for crop demand (Gaskell et al. 2007, Attachment #5), (2) food-safety risks and regulations associated with compost applications in fresh fruit and vegetable crops, (3) excess amounts of salts and phosphorus can be associated with high application rates of compost which are known to be detrimental to soil and crops. For these reasons, most organic growers rely on natural organic fertilizer to meet crop nutrient demands (natural organic fertilizer manufactures like True Organic Products have food safety programs with validated kill-steps and natural organic fertilizers that are low in salts).

According to the CDFA "natural organic fertilizer" means materials derived from either plant or animal products containing one or more nutrients other than carbon, hydrogen, and oxygen, which are essential for plant growth, which may be subjected to biological degradation processes under normal conditions of aging, rainfall, sun-curing, air drying, composting, rotting, enzymatic, or anaerobic/aerobic bacterial action, or any combination of these, which shall not be mixed with synthetic materials or changed in any physical or chemical manner from their initial state except by physical manipulations

AU-8 cont.

such as drying, cooking, chopping, grinding, shredding, or pelleting (CDFA Fertilizer Laws & Regulations, Attachment #6) The most widely used natural organic fertilizers have nitrogen mineralization rates ranging from (40-65%) see Figure 1 (Lazicki et al. 2020, Attachment #1).

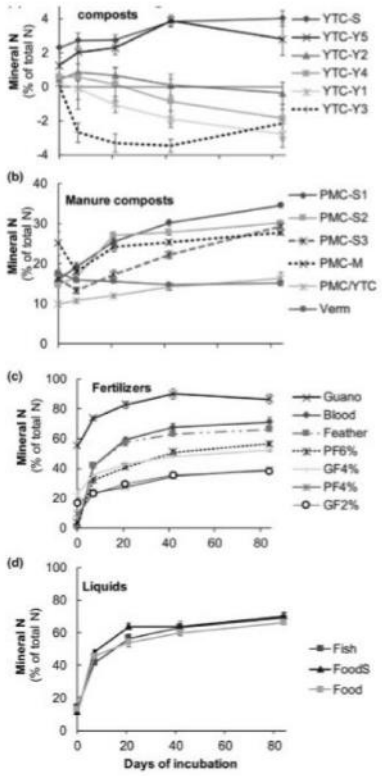


FIGURE 1 Changes in soil mineral N concentrations associated with organic amendments incubated at 23°C for 84 d, with reference to unamended control soils. Values are averages of amendments incubated in conventional (CONV) and organic (ORG) soils. (a) Yard trimmings compost. YTC-Y and YTC-S, yard trimmings compost from Yolo and Solano facilities, respectively. (b) Manure composts. PMC-S and PMC-M, poultry manure composts from Sutter and Merced facilities, respectively; PMC/YTC, blend of poultry and yard wastes; Verm, vermicompost. (c) Fertilizers. Blood and Feather, blood and feather meal, respectively; GF, granular fertilizer; PF, pelleted fertilizer. (d) Liquids. Fish, fish emulsion; FoodS and Food, shaken and unshaken food hydrolysate, respectively. Bars represent SEM ($n = 4$)

AU-9

Solution:

- We propose that the CCRWQCB utilize the regression analysis results from Lazicki et al. 2020 to predict nitrogen mineralization rates (M) for all carbon-based organic amendments (A_{ORG}) based on carbon-to-nitrogen ratios (C:N). We define organic amendments as compost (plant-based and manure-based) and natural organic fertilizer as organic amendments were defined in Lazicki et al. 2020 (Attachment #1). We propose to change the CCRWQCB current compliance pathways:

  From

  Pathway 1: A_{FER} + (C x A_{COMP}) + A_{IRR} – R = Nitrogen Discharge
  Pathway 2: A_{FER} + (C x A_{COMP}) = R

  To

  Pathway 1: A_{FER} + (M x A_{ORG}) + A_{IRR} – R = Nitrogen Discharge
  Pathway 2: A_{FER} + (M x A_{ORG}) = R

- The regression model was calculated using many types of organic amendments with a very wide range of C:N values, including plant-based compost, manure-based compost, dry natural organic fertilizers, and liquid natural organic fertilizers (See Figure 2, Lazicki et al. 2020, Attachment #1). The Regression model shows that C:N ratios are highly correlated to nitrogen mineralization rates (R^2= 0.927), meaning 92.7% of the variability seen in nitrogen mineralization rates can be explained by the variability seen in C:N ratios. Using the Lazicki et al. 2020 regression model, predicted N mineralization rates can be calculated shown in the Table 1 using C:N ratios of organic amendments.

AU-9 cont.

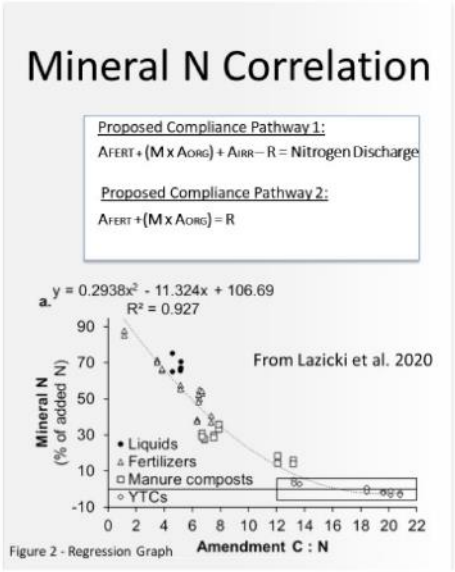


Figure 2 - Regression Graph

C to N ratio	Predicted N Mineralization Rate (M)
<1.5	1.000
1.5	0.904
2	0.852
2.5	0.802
3	0.754
3.5	0.707
4	0.661
4.5	0.617
5	0.574
5.5	0.533
6	0.493
6.5	0.455
7	0.418
7.5	0.383
8	0.349
8.5	0.317
9	0.286
9.5	0.256
10	0.228
10.5	0.202
11	0.177
11.5	0.153
12	0.131
12.5	0.111
13	0.091
13.5	0.074
14	0.058
14.5	0.043
15	0.030
15.5	0.018
16	0.007

Orange highlighted cells - C:N ratios for commonly used organic fertilizers

Table 1 – Calculating M based on C:N ratios

- We also include a comment from Daniel Geisseler, head scientist from Lazicki et al. 2020 study, in regards to using Lazicki et al. 2020 regression model to predict N mineralization rates: *"I'm not opposed to using our values, but I would be more comfortable if a comment was added saying that these are potential N mineralization rates and that the actual mineralization rates are lower during the cold season and when the amendments are not incorporated. Under these conditions, growers should be allowed to use lower values. Can you convince the Water Board to do that?"* (D. Geisseler, email communication, Attachment #7) We do not propose using lower values until there is comprehensive science for predicting N mineralization rates under different environmental conditions. For now, we propose using the optimum N mineralization rates listed in Table 1 calculated from (Lazicki et al. 2020, Attachment #1)
- Soil scientists believe that nitrogen within organic soil amendments and cover crops that is not mineralized within the cropping cycle is recalcitrant and adds to the organic nitrogen within the soil organic matter pool. Organic nitrogen within the organic matter pool is unlikely to leach nitrate nitrogen (Gaskell et al. 2007, Attachment #5).

AU-10

The benefits of carbon-based organic amendments:

- All organic amendments containing carbon can increase soil organic matter levels, improve soil quality and health (USDA NRCS, Nutrient-Management-in-Organic-Systems-Western-States-Implementation-Guide, Attachment #8). The USDA NRCS lists the following potential benefits to improving soil organic matter levels: (1) Provides a carbon and energy source for soil microbes,

AU-10 cont.

(2) Stabilizes and holds soil particles together, (3) Supplies, stores, and retains such nutrients as nitrogen, phosphorus and sulfur, (4) Improves the soil's ability to store and move air and water, (5) Contributes to lower soil bulk density and less compaction, (6) Makes soil more friable, less sticky, and easier to work, and (7) Retains carbon from the atmosphere and other sources (USDA NRCS HealthySoils_article2-highorganicmatter, Attachment #9). Organic farming emphasizes practices and inputs that improve soil organic matter levels and add substantial amount of carbon to the soil (see Table 2, R. Smith 2018, Attachment #10).

from Richard Smith, UCCE Monterey Co. Farm Advisor

Material	Biomass lbs/A	Carbon content percent	Total carbon lbs/A
Compost	10,000[1]	29%	2,146
Cover crop	6,000	44%	2,640
True 4-4-2 2 baby crops @ 3000 each	5,400[2]	29%	1,566
True 8-5-1 1 broccoli crop	5,000[3]	41%	2,050

Table 2 – Carbon inputs from common organic amendments and cover crops.

1 – 10,000 lbs/A @ 74% oven dry weight

2 – 6000 lbs/A (2 baby crops @ 3000 lbs/A each) @ 90% oven dry weight;

3 – 5650 lbs/A @ 90% oven dry weight

- Increasing soil carbon levels has the potential to both improve yields and combat global climate change by storing sequestered carbon in the soil (Lal, 2004, Attachment #11). Healthy soils provide the largest store of terrestrial carbon. When managed sustainably, soils can play an important role in climate change mitigation by storing carbon (carbon sequestration) and decreasing greenhouse gas emissions in the atmosphere (FAO, United Nations, 2014, Attachment #12). Tens of millions of pounds of carbon are applied to the Central Coast annually from natural organic fertilizer applications. Indeed, based on research project quantifying carbon inputs for a large customer of True Organic Products, showed that over 18 million pounds of carbon were applied onto their fields during 2019 (TOP presentation for CCRWQCB on Ag Order 4.0, Attachment #13). Furthermore, comparisons of organic farming practices version conventional practices in adjacent commercial fields located in Monterey Co., showed substantial more microbial biomass carbon and microbial biomass nitrogen in the organic fields than the conventional field (see Figure 3, TOP presentation for CCRWQCB on Ag Order 4.0, Attachment #13)

AU-10 cont.

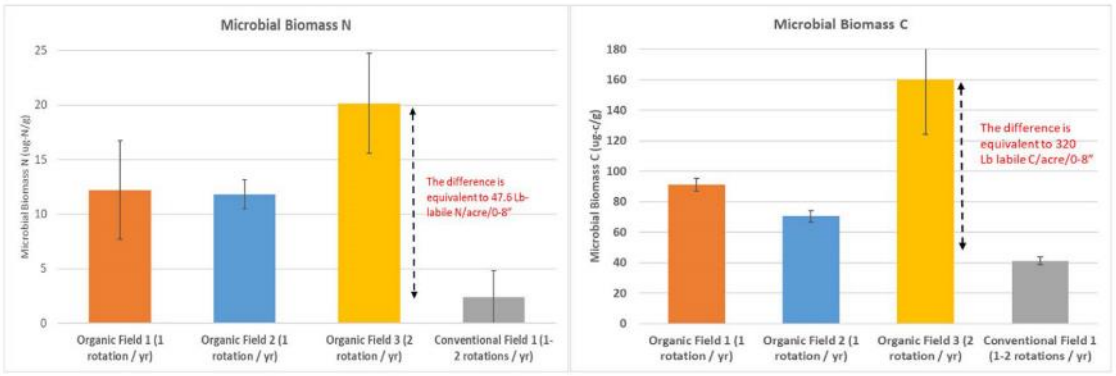


Figure 3 – Microbial Biomass Nitrogen & Microbial Biomass Carbon in adjacent commercial fields being managed by the same farming company (E. Toosi, TOP R&D, 2018).

AU-11

Organic farming practices align with goals of the CCRWQCB:

- Organic farming prohibits the use of synthetic pesticides. Therefore, organic production on the Central Coast would not be a source of pyrethroid, neonicotinoid or other synthetic pesticides run-off.
- Organic practices and organic amendments improve soil structure, improve water infiltration, promote the use of cover crop, and improve soil health – all factors that should reduce nutrient and sediment surface run-off.
- Organic amendments and fertilizers must be mineralized by soil microbial activity which improves soil organic matter and slowly release mineralized nitrogen. These attributes reduce the risk of nitrate leaching into groundwater (Kramer et al. 2006, Attachment #14; Aguilera et al. 2012, Attachment #15).

AU-12 AU-13 AU-14 AU-15 AU-16

In summary,

- Organic farming certification requires many farming practices that are in line the CCRWQCB environmental goals and should be encouraged.
- Current Ag Order 4.0 would disproportionally punish organic farmers because of treatment of natural organic fertilizer by ignoring N mineralization rates.
- By treating all organic amendments like compost and using C:N ratios and scientifically based mineralization rates, this problem could be easily fixed.
- Without this change, organic growers on the Central Coast would have to farm with roughly half the amount of plant-available nitrogen that conventional growers are allowed. This would severely reduce organic farming on the Central Coast in coming years when Ag Order 4.0 greatly reduces nitrogen limits.
- All organic amendments that are rich in carbon should be promoted by the CCRWQCB due to benefits to the environment.

Sincerely,

Ramy Colfer, Ph. D.
VP Research & Development
TRUE

P.O. Box 7192
Spreckels, CA 93962
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Fax (831) 657-9380
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Michael E. Menes, Ph.D.
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Attachments

Attachment 1: Nitrogen mineralization from organic amendments is various but predictable

Attachment 2: Monterey County 2018 Crop Report

Attachment 3: Santa Cruz County 2018 Crop Report

Attachment 4: San Benito County 2017 Crop and Livestock Report.

Attachment 5: Soil Fertility Management for Organic Crops

Attachment 6: Food and Agriculture Code

Attachment 7: Regression Models used to predict %N mineralization based on C:N ratio or %N Email

Attachment 8: USDA Nutrient Management Plan (590) for Organic Systems Western State Implementation Guide.

Attachment 9: Healthy Soils (USDA Handout)

Attachment 10: Monterey County Organic Nitrogen Mineralization Presentation

Attachment 11: Soil Carbon Sequestration Impacts on Global Climate Change and Food Security (Science Magazine Article 2004)

Attachment 12: FAO Soils Help to combat and adapt to climate change by playing a key role in the carbon cycle (FAO Handout)

Attachment 13: Ag Order 4.0 Impact to Organic Farming (True Organic Products Presentation)

Attachment 14: Reducing nitrate leaching and enhanced denitrifier activity and efficiency in organically fertilized soils (PNAS Article 2020)

Attachment 15: The potential of organic fertilizers and water management to reduce N2O emission in Mediterranean climate cropping systems (article)

Note to Readers:

The materials provided in Attachments 1 through 15 have been omitted from this section because they do not contain specific comments on the DEIR or DAO 4.0.

These materials are available for review in Section 3.3.

Response to Comment AU-1

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

Response to Comment AU-2

Thank you for your comment.

Response to Comment AU-3

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

Response to Comment AU-4 through AU-5

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

Response to Comment AU-6

Thank you for your comment.

Response to Comment AU-7 through AU-11

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

Response to Comment AU-12 through AU-16

Thank you for your comment. As referenced above, this comment is summarized and responded to in the following Master Responses: 2.9.1 and 2.1.8.

Letter AV: Will Wagner, Wilbur-Ellis (June 19, 2020)

Letter AV

From: William Wagner
To: AgNOI, WB@Waterboards
Subject: Irrigated lands and fertilizer usage
Date: Friday, June 19, 2020 9:08:33 AM
Attachments: Irrigated Lands Program Letter - Organic Fertilizers copy.docx

EXTERNAL:

Irrigated Lands Program
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
AgNOI@waterboards.ca.gov

Subject: Comments on Draft Ag Order 4.0

AV-1 Thank you for the opportunity to comment on the proposed Ag Order 4.0. We are an organic distributor located in Salinas, CA, where also Wilbur Ellis operates other branches in CA and throughout the United States. I represent the Wilbur Ellis Branch in Salinas, CA where we consult with various organic and conventional growers, recommending and applying fertilizers and pesticides for these various growers. We are aware of the Ag Order 4.0 proposed requirements and are here to help our growers comply, but we also have some concerns.

AV-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.

AV-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. Building carbon in the soil is the backbone to building soil health, so putting extreme limits on growers that want to build carbon through organic fertilizer amendment applications could impact the viability of farming organically in the Salinas Valley.

AV-4 We are also supportive of the comments provided to the board regarding this proposed rule from True Organic Products, Inc.

Sincerely,

Will Wagner, Fertilizer Sales Rep.
Wilbur-Ellis
1427 Abbott st. Salinas CA 93901
Wwagner@wilburellis.com

Response to Comment AV-1

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

Response to Comment AV-2

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

Response to Comment AV-3

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

Response to Comment AV-4

This comment is noted.

Letter AW: Mark Ripata, Wilbur-Ellis Agribusiness (June 19, 2020)

Letter AW

From: Office of Mark Ripato
To: AgNOI, WB@Waterboards
Subject: Comments of Draft Ag Order 4.0
Date: Friday, June 19, 2020 4:47:42 PM
Attachments: image001.png
image002.png
image003.png
image004.png
Importance: High

EXTERNAL:

To: Central Coast Water Quality Control Board/ Attention: Matthew T. Keeling, Executive Officer.
From: Mark Ripato, President Agribusiness Division, Wilbur-Ellis Company
Date: June 19, 2020
Subject: Comments of Draft Ag Order 4.0

Good Afternoon,

AW-1 **With regard to the Draft Ag Order 4.0, I strongly oppose the order as it is written.** I have multiple concerns about this draft order that the Board should take into account as it considers how to move forward. Below is a summary of these concerns.

AW-2 I support the implementation of a third-party coalition to assist growers in complying with the adopted regulations. There are not enough trained and knowledge professionals to navigate the complicated Draft Order Ag Waiver 4.0.

AW-3 With regard to farm planning:

- Plans, for smaller farms, will require significant professional expertise to develop and update, at considerable cost; there are not enough professionals to service all farms for these plans.

AW-4
- Significant data collection and retention will be required to meet annual compliance reporting.

AW-5
- ACF data must be entered manually into GeoTracker; there is no upload function from standardized formats or spreadsheets, adding to compliance time reporting.

AW-6
- Small farms lack resources to complete compliance reporting calculations and will require technical assistance.

AW-7 With regard to irrigation and nutrient management for groundwater protection:

- The calculation methods do not account for all forms of nitrogen removed, volatilized, or otherwise lost, the different ways growers mitigate for nitrogen loss; these should be inherent to any calculation. In addition there is no consideration for Nitrogen Use Efficiency regarding the application of nitrogen.

AW-8
- Improving groundwater quality is important to growers, but it must be done in a balanced format; draft recommendations would make it impossible to grow more than one vegetable crop per year in our Central Coast cropping systems, and significantly shorten berry crop timelines by 2050.

AW-9
- More focus must be placed on innovation and providing credits for mitigating nitrogen to

AW-9 cont.

groundwater, not limiting fertilizer inputs.

AW-10

- Regardless of calculation method, the use of high-nitrogen irrigation water should be incentivized, and both calculation methods should build on that incentive.

AW-11

With regard to sediment and erosion control:

- 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.

AW-12

- TMDL qualifiers are artificially low and cannot be achieved with current farming practices and available science; TMDL targets should be just that, targets only.

AW-13

- Stormwater 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.

AW-14

- Monitoring and reporting of surface (stormwater) discharges will be difficult to achieve.

AW-15

- Impermeable surfaces move around due to crop rotations; additional expense to develop SEMPs will discourage these crops from being produced, which are crops with significant up-front investments.

AW-16

With regard to groundwater monitoring and reporting:

- The precedential Eastern San Joaquin Irrigated Lands Program only requires an averaging of irrigation wells, not all; the same requirement should apply here.

AW-17

- 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.

AW-18

- Individual groundwater trend monitoring will be difficult to substantiate trends due to groundwater movement in any aquifer or sub-basin.

AW-19

- Trend monitoring by a third-party will require data aggregation from multiple wells and cooperation from multiple ranch managers and/or landowners.

AW-20

- Ranch-level groundwater discharge monitoring and reporting is punitive and will not provide additional insight into groundwater quality.

AW-21

- There are no metrics for determining that a well must be monitored for pesticides.

AW-22

With regard to surface receiving water monitoring and reporting:

- 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.

AW-23

- The process for identifying priority watersheds and associated timelines for compliance should be detailed as part of this Ag Order 4.0.

AW-24

With regard to riparian area management and setbacks:

- 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.

AW-25
AW-26
AW-27
AW-28
AW-29

- Riparian setback expansion will reduce field production areas, impacting crop production yields per acre and costs of production (reducing financial return per acre).
- For landowners, loss of production areas will reduce rental income and possibly overall land value.
- Establishment of vegetation will add costs and take significant effort, along with maintenance, and will require irritation and possibly fertilizers along with pest management to establish.
- Significant conflicts with food safety measures come with vegetative setbacks adjacent to production fields.
- 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.

AW-30
AW-31

Additional considerations:

- Constructing farm roads to state codes is unnecessary and costly.
- Compost production and use should be encouraged with incentives, including on-ranch production.

AW-32
AW-33
AW-34

From an economic standpoint you must consider the economic uncertainty of the farming community at this time and the financial impact of imposing such a restrictive regulatory program will have on the growers and community. Lower production values will lead to job loss in areas where unemployment is already high. Additionally, compliance for this program will reduce the ability for needed capital improvements. Lastly, land idling will become an issue in the Central Coast counties as well.

AW-35

I ask that you consider the many concerns and impacts this order will have on the growers and communities as well as the financial and economic impacts.

Thank you,
Mark Ripato

MARK RIPATO
PRESIDENT

Wilbur-Ellis Agribusiness
3300 South Park Road, Suite 500
Aurora, CO 80014
Office: 720-306-6340
mripato@wilburellis.com
ag.wilburellis.com

Response to Comment AW-1

Thank you for your comment.

Response to Comment AW-2

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

Response to Comment AW-3

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

Response to Comment AW-4

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

Response to Comment AW-5

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

Response to Comment AW-6

Comment noted.

Response to Comment AW-7

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

Response to Comment AW-8

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

Response to Comment AW-9

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

Response to Comment AW-10

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

Response to Comment AW-11

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

Response to Comment AW-12

This comment is summarized and responded to in Master Response 2.7.4.

Response to Comment AW-13

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

Response to Comment AW-14

This comment is summarized and responded to in Master Response 2.7.6.

Response to Comment AW-15

This comment is summarized and responded to in Master Response 2.9.8.

Response to Comment AW-16

This comment is summarized and responded to in the following Master Responses: 2.2.3 and 2.4.4.

Response to Comment AW-17

This comment is summarized and responded to in Master Response 2.4.4.

Response to Comment AW-18

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

Response to Comment AW-19

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

Response to Comment AW-20

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

Response to Comment AW-21

This comment is summarized and responded to in Master Response 2.4.5.

Response to Comment AW-22 through AW-23

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

Response to Comment AW-24 through AW-29

This comment is responded to in Master Response 2.8.8.

Response to Comment AW-30

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

Response to Comment AW-31

This comment is summarized and responded to in Master Response 2.1.8

Response to Comment AW-32 through AW-34

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

Response to Comment AW-35

Thank you for your comment.

Letter AX: William Coy (June 19, 2020)

Letter AX

From: Bill Coy
To: AgNOI, WB@Waterboards
Cc: coyanne@wildblue.net
Subject: Draft Ag Order 4.0
Date: Friday, June 19, 2020 10:28:53 PM

EXTERNAL:

AX-1 My name is William Coy, living at 2255 Cottontail Creek Road in Cayucos. I just looked at the proposed setbacks for our area, and I can tell you that this is impossible to implement. We have 37 acres or citrus and avocados...planted in 1980. Most of our orchard is planted right up to the creek . We can't remove these trees. I would suggest that our management of the riparian area is superior to anything you can envision...especially when it comes to erosion control. The 40-year old trees...with their functional root system...keep the soil in place. This is the perfect environment for a stream. You must reconsider these rules. They just don't make any sense at all. We have no run-off with drip irrigation, no pollution of any kind. This is an overreach. Please don't do this. This is our livelihood.

Sincerely,
William Coy
2255 Cottontail Creek Road
Cayucos, CA 93430

Response to Comment AX-1

This comment is summarized and responded to in the following Master Responses: 2.8.8 and 2.1.2.

Letter AY: Patricia Dingus, Yara (June 19, 2020)

Letter AY

From: Patricia Dingus
To: AgNOI_WB@Waterboards
Cc: Patricia Dingus
Subject: Comments of Draft Ag Order 4.0"
Date: Friday, June 19, 2020 9:30:02 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
Water Board Comment letter.docx

EXTERNAL:

Attention: Matthew T. Keeling, Executive Officer

I appreciate you reading my letter.
Best regards,

Patricia Dingus
Regional Sales Manager - Central Coastal CA
US Western region (DPT312)
Sales and Marketing
BU North America
Mobile: +18057657446
Email: patricia.dingus@yara.com

YARA
Yara North America Inc.
100 North Tampa Street Suite 3200
Tampa , United States
Knowledge grows www.yara.com

attention: Matthew T. Keeling, Executive Officer

Subject: CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD'S DRAFT AG ORDER 4.0

Thank you for reading my comment. I will share my concerns as follows.

AY-1 AY-2 AY-3 AY-4

FARM PLANS AND INMP SUMMARY REPORT: My concerns are as follows.

Plans, for smaller farms, will require significant professional expertise to develop and update, at considerable cost; there are not enough professionals to service all farms for these plans. • Significant data collection and retention will be required to meet annual compliance reporting. • ACF data must be entered manually into GeoTracker; there is no upload function from standardized formats or spreadsheets, adding to compliance time reporting. • Small farms lack resources to complete compliance reporting calculations and will require technical assistance.

AY-5 AY-6 AY-7 AY-8

IRRIGATION AND NUTRIENT MANAGEMENT FOR GROUNDWATER PROTECTION: My concerns are as follows.

These calculation methods do not take into account all forms of nitrogen removed, volatized, or otherwise lost, not the different ways growers mitigate for nitrogen loss; these should be inherent to any calculation. • Improving groundwater quality is important to growers, but it must be done in a balance format; draft recommendations would make it impossible to grow more than one vegetable crop per year in our Central Coast cropping systems, and significantly shorten berry crop timelines by 2050. • More focus must be placed on innovation and providing credits for mitigating nitrogen to groundwater, not limiting fertilizer inputs. • Regardless of calculation method, the use of high-nitrogen irrigation water should be incentivized, and both calculation methods should build on that incentive.

AY-9 AY-10 AY-11 AY-12 AY-13

SEDIMENT AND EROSION CONTROL: My concerns are as follows.

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. • Stormwater 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. • Monitoring and reporting of surface (stormwater) discharges will be difficult to achieve. • Impermeable surfaces move around due to crop rotations; additional expense to develop SEMPs will discourage these crops from being produced, which are crops with significant up-front investments.

AY-14 AY-15

GROUNDWATER MONITORING AND REPORTING: My concerns are as follows.

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

AY-15 cont. AY-16 AY-17 AY-18 AY-19

less frequent domestic well sampling in certain situations. • Individual groundwater trend monitoring will be difficult to substantiate trends due to groundwater movement in any aquifer or sub-basin. • 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.

AY-20 AY-21

SURFACE RECEIVEING WATER MONITORING AND REPORTING: My concerns are as follows.

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.

AY-22 AY-23 AY-24 AY-25 AY-26 AY-27

RIPARIAN AREA MANAGEMENT AND SETBACKS: My concerns are as follows.

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. Version 2.0 – Revised 5/27/2020 • Riparian setback expansion will reduce field production areas, impacting crop production yields per acre and costs of production (reducing financial return per acre). • For landowners, loss of production areas will reduce rental income and possibly overall land value. • Establishment of vegetation will add costs and take significant effort, along with maintenance, and will require irritation and possibly fertilizers along with pest management to establish. • Significant conflicts with food safety measures come with vegetative setbacks adjacent to production fields. • 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.

AY-28 AY-29

ADDITONAL REQUIREMENTS: My concerns are as follows.

Constructing farm roads to state codes is unnecessary and costly. • Compost production and use should be encouraged with incentives, including on-ranch production.

Best Regards,

Patricia Dingus CCA, PCA

805-765-7446

Response to Comment AY-1

This comment is summarized and responded to in the following Master Responses: 2.1.8 and 2.1.4.

Response to Comment AY-2 through AY-3

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

Response to Comment AY-4

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

Response to Comment AY-5

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

Response to Comment AY-6

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

Response to Comment AY-7

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

Response to Comment AY-8

This comment is summarized and responded to in the following Master Responses: 2.1.8 and 2.3.9.

Response to Comment AY-9

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

Response to Comment AY-10

This comment is summarized and responded to in the following Master Responses: 2.3.10 and 2.3.3.

Response to Comment AY-11

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

Response to Comment AY-12

This comment is summarized and responded to in Master Response 2.7.3.

Response to Comment AY-13

This comment is summarized and responded to in Master Response 2.9.8.

Response to Comment AY-14

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

Response to Comment AY-15

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

Response to Comment AY-16

This comment is summarized and responded to in Master Response 2.4.4.

Response to Comment AY-17

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

Response to Comment AY-18

This comment is summarized and responded to in the following Master Responses: 2.4.2 and 2.5.5.

Response to Comment AY-19

This comment is summarized and responded to in Master Response 2.4.5.

Response to Comment AY-20

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

Response to Comment AY-21

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

Response to Comment AY-22 through AY-27

This comment is responded to in Master Response 2.8.8.

Response to Comment AY-28

This comment is summarized and responded to in Master Response 2.1.12

Response to Comment AY-29

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

Letter AZ: Richard W. Nutter, Ag Land Trust (June 20, 2020)

Letter AZ

From: Heather Golden
To: AgNOI, WB@Waterboards
Subject: Comments on Draft Ag Order 4.0-Ag Land Trust
Date: Saturday, June 20, 2020 12:45:49 PM
Attachments: Ag Order 4.0 Ag Land Trust-Richard Nutter 061920.pdf

EXTERNAL:

I have attached the comment-response to the Draft Ag Order 4.0 for Ag Land Trust.

With Regards,

Heather Golden
Golden Ag Assistance LLC
Cell(831)320-8698
Fax(831)417-5045
hgolden@fitforgold.com

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AG LAND TRUST
Preserving Farm Land Since 1984
www.AgLandTrust.org
Location: 1263 Padre Drive | Salinas, CA
Mail Address: P.O. Box 1731 | Salinas, CA 93902
Tel.: 831.422.5868

June 19, 2020

State of California Central Coast
Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

RE: Ag Land Trust Response to Ag Order 4.0

To Whom It May Concern;

AZ-1 Ag Land Trust represents nearly 50,000 acres of agricultural lands in Monterey and San Luis Obispo counties. We speak both as owners of producing agricultural properties and holders of agricultural conservation easements. We have more than forty years of experience in preserving and protecting farmland. Our Mission Statement is "to preserve agricultural lands".

AZ-2 We believe the proposed Ag Order 4.0 has the potential of having an adverse effect on agriculture not only economically but socially. The buffer setback requirements would not only have an impact on production but could affect leases, labor requirements and possibly, county property assessments.

AZ-3 As associate members of the Grower Shipper Association of the Central Coast, we share the concerns they have submitted to this hearing. The areas of concern include; Irrigation and Nutrient Management for Groundwater Protection Calculations, Sediment & Erosion Control, Surface Water Monitoring & Reporting, Riparian Area Management & Buffer Setbacks as well as the general economic impacts.

AZ-4 We fear the authors of Ag Order 4.0 appear to lack a real-world knowledge or understanding of local agriculture and the possible ramifications should it be implemented as currently written.

AZ-5 This Ag Order 4.0, as it is, will have far reaching unintended consequences affecting Regional, County, State and Federal interests. We recommend the proposed Ag Order 4.0 be withdrawn and that the staff consult with the local agricultural community to develop a regulation that helps reduce the excesses and provides an order to which the local industry can contribute and comply.

Respectfully,

Richard Nutter

Richard W. Nutter
Chairman of the Board

The Ag Land Trust is a 501 (c)(3) non profit organization.
Donations are welcome and tax deductible.

Response to Comment AZ-1

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

Response to Comment AZ-2

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

Response to Comment AZ-3

This comment is summarized and responded to in the following Master Responses: 2.3.1; 2.7.1; 2.5.3; 2.8.8; and 2.9.1.

Response to Comment AZ-4

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

Response to Comment AZ-5

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