RESPONSE TO COMMENTS
PROPOSED ORDER NO. R3-2017-0002

This document provides comments received from stakeholders on the draft Ag Order 3.0, made available on November 1, 2016, with Central Coast Water Board staff responses to comments.

Comment letters received on the Proposed Ag Order 3.0 are as follows:

Letter No.: 11
Page No.: page 13
Topic: WQBP

Comment: Taylor-Silva 32
Part 7.A.2 references a "Water Quality Buffer Plan form" for submittal of a Water Quality Buffer Plan. Like with INMP reporting form referenced directly above, it is improper to mandate use of a certain form without the form first being subject to public review and comment. For the same reasons expressed above, the Draft MRP should be revised to state that the form will be one that is made available only after public review and comment.

Response:
The Water Quality Buffer Plan Form, similar to the template for Individual Surface Water Monitoring, was developed to provide guidance to the grower and ensure that specific required elements were reported. The form also facilitates more efficient review by Water Board staff. Growers can use the form or submit a functional equivalent to address discharges of waste. Ag Order 3.0 specifically allows for growers to submit an alternative status report in a format approved by the Executive Officer. Growers submitting the WQBP form in 2016 expressed no concerns with the reporting format, and all growers who submitted WQBPs used the template form provided by staff.

Letter No.: 1
Page No.: page 3
Topic: eNOI

Comment: Sutton 4
[T]here is an ongoing concern, with requiring that all updates be electronically submitted. There are older and small growers under the Order who are not computer literate and/or don't have computers. This makes it difficult for them to comply with the Order. Farm Bureau recommends alternative provisions for those growers and ranchers that is clearly noted in Version 3 and in all future orders.

Response:
The eNOI only needs to be updated if there is a change in the operation or ranch. It is staff's experience that the growers the commenter refers to often have farming operations that are static, don't change, and therefore are not required to edit their eNOI. Staff recognizes that not all growers have the means to electronically submit their required reporting. Staff will continue to work with these growers on a case-by-case basis, as has been the practice throughout the lifespan of Ag Order 2.0. Reports are required to be submitted electronically, or in a format specific by the Executive Officer, so staff does have a degree of flexibility when trying to accommodate growers.

Letter No.: 4
Page No.: page 5
Topic: eNOI

Comment: Groot 4
The removal of the requirement for farm operators to name surface water bodies adjacent to their enrolled ranches is appreciated.

Response:
Thank you for your comment.

Letter No.: 11
Page No.: page 12
Topic: eNOI

Comment: Taylor-Silva 2
Newly proposed changes to the Groundwater Reporting Requirements would require information reported on the eNOI to include the number of groundwater wells used for agricultural purposes and the number of wells used for or that may be used for domestic purposes. As stated, this could result in an overestimation of groundwater wells because it does not take into consideration wells that could be used for both purposes. It will result in double-counting of such wells. To avoid the over-calculation of wells, the eNOI needs to be revised to allow accurate reporting of the number of wells (and type) at each farm/ranch.

Response: The requirement to report the number of domestic and irrigation wells in the eNOI has not changed from Ag Order 2.0 to Ag Order 3.0. The eNOI instructions advise growers to report the most conservative use type for dual-use wells, meaning if a well is used for both irrigation and domestic purposes, then it should be reported only one time, as a domestic well.

Letter No.: 10
Page No.: page 8-9
Topic: Public Health

Comment: Reck 9
The 2017 Draft Waiver claims to be in the public interest because:
a. The Order was adopted in compliance with Water Code Sections 13260, 13263, and 13269 and other applicable law;
b. The Order requires compliance with water quality standards;
c. The Order includes conditions that are intended to eliminate, reduce and prevent pollution and nuisance and protect the beneficial uses of the waters of the State;
d. The Order contains more specific and more stringent conditions for protection of water quality compared to the 2004 and 2012 Agricultural Orders.
e. The Order contains conditions that are similar to the conditions of municipal stormwater NPDES permits, including evaluation and implementation of management practices to meet applicable water quality standards and a more specific MRP;
f. The Order focuses on the highest priority water quality issues and most severely impaired waters;
g. The Order provides for an efficient and effective use of Central Coast Water Board resources, given the magnitude of the discharges and number of persons who discharge waste from irrigated lands;
h. The Order provides reasonable flexibility for the Dischargers who seek coverage under this Order by providing them with a reasonable time schedule and options for complying with the Water Code.

Despite these broad proclamations, we find the waiver to not be in the public interest because it fails to effectively regulate irrigated lands within the Central Coast to protect all beneficial uses. Specifically, the most vulnerable populations will continue to suffer from nitrate-contaminated water if the 2017 Draft Waiver is approved as proposed.

Response: Please see response to comment Reck 6. Please also see additional findings in Attachment A of Ag Order 3.0, such as finding 12 declaring the human right to safe, clean, affordable and accessible water.

Letter No.: 14
Page No.: page 2
Topic: Public Health

Comment: Smith 3
Dischargers [should] be required to provide alternative water supplies or replacement water service to affected water suppliers or private domestic well owners. As of now, the cost of remediation is on the public. Many rural households reliant on wells do not have the information to detect hazardous nitrate levels when health problems occur, or the financial resources to put in filtration systems, reverse osmosis, or dig new wells. The burden of taking care of polluted water is shouldered by the public - by government agencies with public funds on behalf of rural households, often low income, Spanish speaking, or in ill-health and vulnerable already. It's an environmental justice issue. Dischargers should pay for the impacts of their pollution.

Blue baby syndrome has been documented in Monterey County, and most likely under reported. Even one case is too many, with serious consequences for the health of the baby, and the families' wellbeing. This is entirely preventable. With this new Ag Order, the Regional Board

has the power and responsibility to impose strategic and feasible safeguards to protect public health.

Response: Proposed Ag Order 3.0 retains finding 21, which states that "in compliance with Water Code section 13304, the Central Coast Water Board may require Dischargers to provide alternative water supplies or replacement water service, including wellhead treatment, to affected public water suppliers or private domestic well owners." During implementation of Ag Order 2.0, at numerous locations, affected water users were provided replacement water at no cost to the user. Ag Order 3.0 does not rule out the potential for replacement water being required.

Letter No.: 17
Page No.: page 1
Topic: General

Comment: Zelinski 17
Working with Mr. Chris Rose and his staff has been productive, and I hope, mutually beneficial in administering Ag Order 2.0 as well as developing Ag Order 3.0.

Response:
Comment noted.

Letter No.: 8
Page No.: page 1
Topic: General

Comment: Shimek 43
Our groups are very concerned about the economic, environmental, human and social costs of continued agricultural pollution.

Response: Thank you for your comment.

Letter No.: 8
Page No.: page 5
Topic: BMPs

Comment: Shimek 44
Growers are aware of creative and inexpensive practices to reduce pesticide (and nutrient) loads in farm runoff; just a few months after the Ag Order was passed by the Regional Board in March 2012, articles began appearing in trade magazines to help growers comply with water quality regulations.

Response:
Staff encourages innovation in achieving water quality goals and recognizes that trade and industry groups play an important role in helping growers comply with the Order.

Letter No.: 8
Page No.: page 5

Topic: BMPs and compliance

Comment: Shimek 45
Good farm practices are not rocket science but are things like retention basins, vegetated ditches, constructed wetlands, and the use of polymers. (One such article is included as Attachment 8). While relatively simple precautions and practices are well known, there is no regulatory backstop to move growers towards compliance.

Response:
See response to comment Reck 6, 7.

Letter No.: 6
Page No.: page 10
Topic: SIP Certified Vineyards

Comment: Fisher 10
Farm Bureau is encouraged to see the Sustainability in Practice ("SIP") Certified Program retained (although now in another regulatory order) with regard to the regulation of certified irrigated vineyards, as this robust third party certification program with independent verification represents vineyards with a low risk to water quality, justifying a lower regulatory burden. Given the benefits of sustainable certification programs, other orders regulating agricultural commodities should recognize certification and sustainability practice programs for all crops, in addition to certified sustainable vineyards.

Response:
Comment noted. Some industry and commodity groups are in the process of developing sustainability certification programs for cropland other than vineyards. These and other proposals will be considered upon receipt by staff.

Letter No.: 2
Page No.: page 3
Topic: Winery and Vineyard WDR

Comment: Schmidt 2
CCWQP is charged with managing the surface water monitoring program for enrolled growers through the CMP. To do so it needs financing from these growers and predictability in the execution of the MRP so that the funds so raised will cover the entire year of monitoring. The 2017 CMP fee schedule is based on 417,351 participating acres. If vineyard SIP acres, estimated to be 36,000 acres, are no longer participating in the CMP the remaining growers will have their individual cost of complying with the 2018 and future MRPs increase further. This would be compounded if other commodities that currently have certified sustainability programs no longer participate in the CMP.

As this significant change in Ag Order acres is presently under consideration, its discussion should be included in the Ag Order adoption process. Therefore, CCWQP proposes that either:
1. The SIP acreage be removed from the Winery WDR, as there is no showing that there is any functional difference from the surface water impact compared to other crops; or

2. Certified sustainable programs continue to require participation in the CMP, even if the farms no longer need to comply with the remainder of the future Ag Orders. This would be similar to the proposal to require SIP acres to continue to monitor their wells in a manner consistent with the present MRP for groundwater.

Letter No.: 6
Page No.: page 10
Topic: SIP Certified Vineyards

Comment: Fisher 11
Although Farm Bureau appreciates and supports the continued recognition of the SIP Certified Program, the regulation of certified irrigated vineyards in the Winery Waste WDR rather than remaining part of the Ag Order 3.0 raises some concerns as unintended consequences may emerge due to the integration of two separate types of operations. Irrigated vineyards and processing facilities (wineries) differ in types of waste, manner of production, and use of best management practices. Additionally, unintended increases in costs will occur for those in the Ag Order 3.0 due to the removal of certified vineyard acreage from the Ag Order 3.0's water quality monitoring program. Given these concerns, further dialogue is needed regarding the removal of the SIP Certified Program from the Proposed Ag Order 3.0.

Response:
Staff will not propose moving the SIP certified program from the ag order to a winery order without additional, future stakeholder outreach and opportunity for comment and dialog, as was discussed at the December 2016 Board meeting.

Letter No.: 8
Page No.: page 4
Topic: Fishes affected by nitrate in surface water

Comment: Shimek 57
"The first indication that relatively low concentrations of nitrate might be harmful to fish came from Grabda et al. (1974). They reported that fry of rainbow trout, exposed to 5–6 mg NO3-N/l for several days, displayed increased blood levels of ferrihemoglobin, alterations in the peripheral blood and hematopoietic centres, and liver damage. In addition, Kincheloe et al. (1979), examining the tolerance of several salmonid species to nitrate toxicity after an exposure of 30 days, reported that developing eggs and early fry stages of O. mykiss, O. tshawytscha and the (Lahontan) cutthroat trout Salmo clarki exhibited significant increases in mortality at nitrate concentrations from 1.1 to 4.5 mg NO3-N/l (Table 3). In the case of the coho salmon Oncorhynchus kisutch, eggs and fry were not affected at the highest nitrate concentration of 4.5 mg NO3-N/l (Table 3). Kincheloe et al. (1979) concluded that a nitrate level as low as 2.0 mg NO3-N/l in surface waters of low total hardness (<40 mg CaCO3/l) would be expected to limit survival of some salmonid fish populations because of impaired reproductive success."

Coho salmon and steelhead (genetically identical to O. mykiss) once thrived in the Salinas River and today Coho have been extirpated and steelhead are rare and are ESA listed as "endangered." The California's salmon industry has an economic impact of $1.4 billion and a jobs impact of 23,000 (Attachment 6).

Response:
The proposed Ag Order 3.0 and associated monitoring and reporting programs include surface water monitoring of nitrate, expanded total nitrogen applied reporting, and reporting of nitrogen loading from ranches performing individual discharge monitoring. All of these requirements are included as steps in addressing/decreasing the levels of nitrate in surface water.

Letter No.: 12
Page No.: page 4
Topic: Individual surface discharge monitoring

Comment: Mercer 21
Technical Reports are not an adopted requirement of the Ag Waiver 2.0, but are required by Executive Officer discretion. When writing one of these reports, it was interesting to discover little to no direct correlation between management practices and Individual Surface Water Monitoring results at the edge of field/operation. Toxicity or exceedances occurred where they weren't expected and vice versa. This exercise validated the argument that edge-of-field monitoring is not necessarily the best way to gauge the effectiveness of the Waiver conditions. In fact, SWRCB reached the same conclusion in SWRCB WQ 2013-0101 when they wrote, *"The variability in the composition of end-of-field discharges makes it difficult to characterize such discharges through sampling at a limited number of locations and in a limited number of sampling events. Further, even though the surface water discharge monitoring requirements are targeted to the highest risk dischargers, problem discharges and areas are likely to be found outside of the influence of farms operated by Tier 3 dischargers. The better approach may be to rely on receiving water monitoring data and to require the third party monitoring groups administering receiving water monitoring to pursue exceedances with increasingly focused monitoring in upstream channels designed to narrow down and identify the sources of the exceedances."* (SWRCB Order 2013-0101).

Response:
SWRCB WQ 2013-0101 limited the "edge-of-field" monitoring requirement to discharges conveyed through pipes, ditches, swales, tile drains, and other discrete structures and features, but did not strike the requirement. As modified, the State Water Board found "the cost of carrying out the surface water discharge monitoring requirement is reasonably related to the benefit of identifying and addressing those discharges at highest risk of impacting surface water quality." (*Id.,* p. 39.) The recognition and such monitoring is indicating exceedances from these large (tier 3) ranches, in some cases where such exceedances were unexpected, helps validate the need for the requirement as part of the iterative approach to solving water quality problems.

In recognition of the importance and benefits of regional surface receiving water monitoring, the proposed Ag Order 3.0 and associated monitoring and reporting programs continue the requirement to monitor surface receiving waters, and Central Coast Water Quality Preservation, Inc. will continue to perform regional receiving water monitoring on behalf of growers. The Water Board's Central Coast Ambient Monitoring Program will also continue to monitor surface receiving waters to provide a robust dataset of surface water conditions.

The presence or absence of a management practice does not in itself determine whether the management practice is an effective control in a particular area. Management practices must always be implemented and evaluated based on site-specific conditions. When a management practice produces results that are unexpected, it should be closely evaluated and additional or new management practices should be implemented to achieve better control. The presence of toxicity at unexpected locations does not negate the importance of end-of-field monitoring, but

rather shows the importance of linking management practices with monitoring to confirm or deny the effectiveness of practices.

Letter No.: 1
Page No.: page 4-5
Topic: Technical Assistance Capacity

Comment: Sutton 10
There are very few professionals that are certified to initiate and implement an INMP.

Letter No.: 6
Page No.: page 6
Topic: Technical Assistance Capacity

Comment: Fisher 13
With the Ag Order 3.0 requiring more growers to comply with the newly expanded reporting and monitoring requirements, additional technical advisors and professionals will be needed which will be problematic given the lack of technical capacity to assist all the growers. In addition to the substantial cost associated with utilizing a technical advisor, there is insufficient technical assistance available to assist growers in complying with the Ag Order 3.0's requirements. For example, few professionals have been certified to develop and implement an INMP. Farm Bureau respectfully requests the Regional Board to address the lack of technical capacity to assist all the growers in complying with the requirements of the Ag Order 3.0 and make necessary revisions to the requirements.

Response:
As of November 2016, there were 168 certified crop advisors (CCA) located in the Central Coast Region who could provide the services required to initiate and implement an INMP. Staff encourages the training and certification of more professionals, if and when needed. Staff is providing assistance to regional CCA committees, whose goals could include expansion of more certified crop advisors.

Letter No.: 4
Page No.: page 3
Topic: Technical Assistance Capacity

Comment: Groot 16
Including many more farm operators in compliance reporting requirements will mean many more will be seeking out professional technical assistance to file their compliance reports annually…Quite simply, there may be insufficient technical assistance available to go around…

There are concerns expressed about the ability of anyone, a technical expert or otherwise, to adequately address the 'estimated' projection of groundwater impairment due to the continued use of nitrogen in any quantities. There is no science developed yet to provide guidance how this estimate is to be developed, quantified, or verified. We doubt that any technical expert would be willing to sign their name to such an estimate for fear of future liability. This seems like an unreasonable request based on current available science and research on future groundwater impairments based on current nitrogen application management practices.

Response:

Refer to responses to comments Sutton 10, Zelinski 6, 7, 8, and 10 and Mercer 17. Additionally, staff notes the commenter's assessment regarding "estimated projection of groundwater impairment due to the continued use of nitrogen…" Staff will continue to work with professionals assisting growers with reporting, e.g. Irrigation and Nutrient Management Plan Effectiveness Reports to align report expectations with current science.

Letter No.: 12
Page No.: page 4
Topic: INMP consultants

Comment: Mercer 17
It is interesting to note that in 2014, there were about six consultants or vendors interested in writing INMP and Effectiveness Reports in the Salinas Valley. Of those six, today, only one remains active. There are a number of Certified Crop Advisors on the Central Coast, but many are declining to do this work. CCAs' concerns about liability because of public access to reported compliance forms and reports is discouraging availability of technical service providers. Shortages of service providers will eventually increase costs even more. If the current trends continue, there may come a time when growers may be unable to procure sufficient qualified technical assistance.

Response:
Please see response to comment Sutton 10.Additionally, and as a follow up to this comment, in November 2016 staff reached out to all the currently certified crop advisors (CCAs) located in the region, inquiring about their availability and willingness to assist growers with the INMP and received 16 positive responses from professional stating they are available and are willing to provide the assistance necessary.

Letter No.: 12
Page No.: page 5
Topic: Photo Monitoring

Comment: Reck 8
Topic: Photo Monitoring

In order to comply with the Porter-Cologne Act and the Nonpoint Source Policy, the new waiver should, at a minimum, include:

Replace photo monitoring with another regulatory program aimed at recording and stopping destruction of wetland and riparian habitat.

Letter No.: 8
Page No.: page 6
Topic: Photo Monitoring

Comment: Shimek 46
The requirement for photo monitoring has been removed from the Draft Ag Order without any replacement. The intent of the photo monitoring was to document a baseline condition for riparian and wetland areas so that destruction of riparian vegetation and wetlands could be documented and enforced against… It is our understanding that digital maps can differentiate wetland and riparian habitats from irrigated fields, roads, and bare ground. We believe it could

also be possible for the computer to compare maps and create a new map of wetland and riparian loss or restoration.

Documentation of riparian and wetland loss and restoration is critical to protecting water quality. It is not enough to suggest that staff "will consider" alternatives to the existing photo monitoring. A replacement program must be incorporated into the new Ag Order.

Response (to Reck 8 and Shimek 46):
The photo monitoring requirement (except in conjunction with the Water Quality Buffer Plan) has been removed from proposed Ag Order 3.0. In both Ag Order 2.0 and 3.0, riparian areas are required to be protected under Condition 39, which reads: "Dischargers must a) maintain existing, naturally occurring, riparian vegetative cover (such as trees, shrubs, and grasses) in aquatic habitat areas as necessary to minimize the discharge of waste; and b) maintain riparian areas for effective streambank stabilization and erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, and wildlife support to minimize the discharge of waste." Staff is able to enforce condition 39 through other means, such as satellite imagery, ortho-photos, and farm inspections.

Letter No.: 4
Page No.: page 5
Topic: Photo Monitoring

Comment: Groot 12
We agree that the photomonitoring requirement should be removed as other technology exists to manage habitat and other streambed environmental verifications.

Response: Thank you for your comment.

Letter No.: 1
Page No.: page 3
Topic: Frequency/Timing of Reporting

Comment: Sutton 5
It is a positive move that Order 3.0 no longer requires annual updates of the eNOI.

Response:
Thank you for your comment.

Letter No.: 4
Page No.: page 2
Topic: Frequency/Timing of Reporting

Comment: Groot 5
Many farm operators are not aware yet that [total nitrogen applied] will be thrust upon them and may not be properly developing data retention records within their office operations…We suggest that reporting requirements be mandated as of the date Ag Waiver 3.0 is adopted, not retroactively.

Response:
See response to comment Taylor-Silva 4. The total nitrogen applied requirement is expanding, but it is only expanding to additional Tier 2 and Tier 3 growers. The Annual Compliance Form,

which includes questions regarding nitrate concentration of the irrigation water, calculation of nitrogen applied with irrigation water, and many questions relating to nutrient management, has been a requirement for Tier 2 and Tier 3 growers for several years. The Draft Order and MRPs, including the expansion of the total nitrogen applied reporting requirement, were released for public review and comment on November 1, 2016, well before the beginning of the January 1, 2017-December 31, 2017 reporting period. That being said, staff recognizes that it is possible that not all growers will have developed adequate recordkeeping systems for the entire reporting period when it comes time to submit their reports in March 2018. Staff will continue to work with growers on a case-by-case basis to assist them in generating the most accurate reports possible, and will continue to encourage growers to update their recordkeeping systems to facilitate reporting in future years. Staff is also encouraged to see cooperative groups, such as the Central Coast Groundwater Coalition, stepping up to provide total nitrogen applied reporting assistance to their member growers.

Letter No.: 4
Page No.: page 5
Topic: Frequency/Timing of Reporting

Comment: Groot 6
We urge that there be leniency with the reporting time frame for eNOI updates, either for new parcel enrollments or farm terminations. The regulated community has previously expressed interest in a 60 day time frame due to field activities and harvest schedules.

Response:
See response to comment Wineman 3. Staff has revised the requirement to now read 60 days, as the commenter suggests.

Letter No.: 4
Page No.: page 5
Topic: Frequency/Timing of Reporting

Comment: Groot 7
Related to termination of ranches and the reporting of total nitrogen applied within 30 days of the termination, we request that this also be allowed to be submitted within a 60 day time frame…

Response:
See response to comment Wineman 3. Staff has revised the requirement to now read 60 days, as the commenter suggests.

Letter No.: 4
Page No.: page 5
Topic: Frequency/Timing of Reporting

Comment: Groot 8
While we applaud the change of the reporting date to timing in the early months of a calendar year, we still expect that many farm operators may have difficulty with the revised schedule of March 1st. We suggest that the Annual Compliance Form filing date be on March 1st with an additional 30 day period allowed for the other reporting requirements such as the Effectiveness Reports. This eases the burden of reporting all information on one date, which many small farm operators may not have the capacity to manage.

Response:
Staff revised the Effectiveness Report requirement from annually, to once in the term of Ag Order 3.0.

Letter No.: 11
Page No.: page 10-11
Topic: Frequency/Timing of Reporting

Comment: Taylor-Silva 3
The Draft Order removes the grandfathering provisions for dischargers that have already enrolled in the Ag Order. The removal of this language implies that every discharger must submit a new Notice of Intent to be enrolled in the 2017 version of the Ag Order. However, the Draft Order does not provide any type of grace period for submittal of a new NOI. As a result, every irrigated agricultural operation subject to the Ag Order will automatically be in violation of the order on the day of adoption, unless they happen not to be growing any crops at the time of adoption. To avoid this likely unintended consequence, the Draft Order needs to either grandfather in existing operations that have already submitted an NOI, or provide a time period of at least 60 days for submittal of a new NOI for the newly adopted order, after it is adopted.

Response:
The commenter has misunderstood the condition. Growers who have already submitted an eNOI do not need to submit a new one to be enrolled in Ag Order 3.0. Language has been added to Finding 26 of the Order to make this explicit. Ag Order 2.0's finding 27 was removed because it was repetitive when considering condition 55, which requires dischargers to update their eNOI within 30 days of a change (which has now been revised to 60 days). Language stating that dischargers who have previously submitted an eNOI are required to update their NOI to reflect current operation and farm/ranch information was unnecessary and therefore removed from the Order; it will not result in agricultural operators automatically being in violation of the order because the eNOIs that have already been submitted as part of compliance with Ag Order 2.0 will be retained and used during the implementation of Ag Order 3.0.

Letter No.: 11
Page No.: page 13
Topic: Frequency/Timing of Reporting

Comment: Taylor-Silva 4
The Draft Order and its associated attachments include a number of different timelines. We provide general comments on certain timelines here. First, it is inappropriate to require reporting under this Order for a time period in which the Order was not effective. Specifically, reporting periods should begin of the effective date of an adopted order- not January 1, 2017. Second, a 60-day timeframe for enrollment and termination should also be maintained.

Response:
See response to comment Groot 5 and response to comment Wineman 3. The commenter's reference to January 1, 2017, is regarding total nitrogen applied reporting, where growers who have not been required to submit total nitrogen applied during Ag Order 2.0 will be required to submit this information beginning March 1, 2018. The first March 1, 2018 report must include applied nitrogen for all crops harvested from January 1, 2017, through December 31, 2017. Staff anticipates Ag Order 3.0 will be adopted in the first week of March 2017, at which time staff

will inform growers about the need to track nitrogen applied, so that this does not come as a surprise later to growers who are not actively following Ag Order 3.0 development and approval. Like the first total nitrogen applied reporting required in 2014, staff anticipates a learning curve for some growers, particularly growers new to the requirement.

Letter No.: 5
Page No.: page 3
Topic: ACF Content

Comment: Michel 1
We identified multiple instances where the [annual compliance form (ACF)] content and the online form can and should be improved to ensure it is providing the most useful and accurate information possible. We believe the form should describe the practices growers are using and the most effective practices in the region for achieving WQ improvement, assessing their effectiveness and measuring the outcomes. We recommend the information (checkboxes on the form) be reviewed and upgraded, engaging researchers, technical service providers, agronomists and grower representatives in the process. In addition, the web-based interface should allow for intermittent saving of the form.

Response:
The Farm Plan houses much of the information that describes growers' water quality management practices, including descriptions and time schedules for all farm water quality management practices, treatment and/or control measures implemented, and description of the method and schedule for assessing the effectiveness of each. The ACF is not intended to gauge progress on a regional basis, but rather to gauge internal, individual progress for each grower, and should be used to memorialize each grower's efforts. The ACF collects more general information regarding the implementation of sediment, irrigation, nutrient, and pesticide management practices within the last 12 months. Staff welcomes the opportunity to update the ACF during the implementation of Ag Order 3.0, especially in response to specific change proposals that may be presented.

Letter No.: 1
Page No.: page 1
Topic: Cooperative Monitoring Programs

Comment: Sutton 1
As stated on page 5 of the December 8, 2016 staff report, there is only one groundwater cooperative monitoring program submitted thus far for Ag Order Version 3.0. Because of the difficulty of forming a cooperative groundwater monitoring program with the costs and requirements, it is quite possible that there will be few applications. The ability to have cost effective and efficient monitoring cooperative monitoring programs could be truly beneficial to both the grower and the Irrigated ag. program.

Response:
As of the date of the December staff report, only the Santa Rosa Creek Valley Cooperative had submitted its draft groundwater monitoring proposal. The Central Coast Groundwater Coalition, which historically has covered a significantly larger number of ranches, had been working on a draft proposal and has since submitted it to the Water Board for review. Staff agrees that cooperative groundwater monitoring programs have clear benefits and looks forward to working with the Santa Rosa Creek Valley Cooperative, the Central Coast Groundwater Coalition, and potential future cooperative groundwater monitoring efforts.

Letter No.: 14
Page No.: Appendix (master's thesis), p 21
Topic: Cooperative Monitoring

Comment: Smith 1
In order to address agricultural pollution and protect communities the new 2017 Ag Order must include a comprehensive grower monitoring system for irrigated lands run-off, regulations of nitrogen application and budgeting, in a transparent reporting process. There must be an authorized third-party to analyze this important information and guide improvements to education around nitrogen use, and to support evidence-based, localized decision-making. This would include annual soil and water testing to determine how much nitrogen is already present, and make appropriate decisions to protect waterways. Cooperative monitoring systems seem to be the most efficient, technically and economically viable monitoring actors. If both growers and the CA Water Board trust them, these types of civil society organizations would be the most eligible candidates to issue water quality analyses and recommendations.

Response:
The Draft Order includes requirements for surface water and groundwater monitoring, including monitoring for nitrate. The Draft Order also includes the total nitrogen applied requirement, which includes measuring the nitrogen present in the irrigation water and in the soil and reporting those values along with the amount of nitrogen applied in fertilizers. Staff agrees that the cooperative monitoring approach has benefits and that additional educational opportunities, especially related to nutrient management, are an important method of addressing nitrate in groundwater and nutrients in surface water. Organizations such as the California Department of Food and Agriculture (CDFA) and the Fertilizer Research and Education Program (FREP), UC Cooperative Extension, and other entities will continue to be instrumental in providing education and outreach in the region. Monitoring data and grower reported information is available to these organizations to help foster the support and guidance suggested by the commenter.

Letter No.: 4
Page No.: page 4
Topic: Cooperative Monitoring

Comment: Groot 2
We express concern about the increased costs imposed due to groundwater well monitoring activities, testing for additional constituents, and frequency of sampling…additional costs imposed could jeopardize the viability of the groundwater cooperative, particularly since the recent legal decision on data confidentiality took away the major benefit of participating in the cooperative.

As to monitoring costs for the surface water cooperative program, farm operators are already experiencing a 69% increase in their fees for 2017 monitoring and testing. This is contrary to the original intent of the cooperative monitoring program when established in 2005, which was to reduce overall monitoring expenses and ease the burden of Regional Water Board staff for sampling analysis.

If not supported with proper incentives, such as reduced costs and monitoring requirements, as well as data protections, the advantage of cooperative monitoring programs will be diminished in the viewpoint of landowners and farm operators and could result in failure of these programs.

Response:
For clarification, Preservation Inc. has stated that the increase of an estimated 69% is in "laboratory fees," which is only a portion of the total cost to growers. Therefore, a grower's invoice will not increase 69% as a result from the changes to the surface water monitoring requirements.

For those growers who elect to join the surface water monitoring cooperative, the annual fees paid to Preservation, Inc. cover both the costs of performing the monitoring required by the monitoring and reporting programs and the State Water Resources Control Board's permit fee. The additional monitoring will cause the fees collected by Preservation, Inc. to increase, but it is important to note that there is still significant economic benefit to being a member of a cooperative relative to the State Board's higher fee structure for growers who are not in a cooperative.

For example, based on State Board's 2015-2016 fee schedule, a 5-acre ranch would have paid $471.50, a 50-acre ranch would have paid $1,345, and a 150-acre ranch would have paid $3,202 in state permit fees *if they had not been part of a cooperative monitoring program*. In contrast, for *growers who are members* of a cooperative group that manages fee collection and payment, such as Preservation, Inc., the permit fee for ranches without tailwater discharge would have been approximately $81, $238, and $714 for a 5, 50, or 150-acre ranch, respectively.

While the 69% increase for the 2017 laboratory portion of monitoring fees compared with 2016 fees is significant, it should also be noted that 2015 fees had been reduced by 33% compared with 2014 fees and when compared with the 2012 base rate used by Preservation, Inc. during invoicing. The total fee increase compared with the 2012 base fee rate is 26.5%, which equates to an approximate 13% increase when compared with the 2014 fees. Even with the fee increase, the cooperative fees are still significantly lower than the fee schedule set by the State Board for growers not participating in a cooperative, and the State Board fee does not include any surface water monitoring which individuals would be required to perform in addition to their higher State Board permit fee.

Regarding groundwater monitoring, growers are encouraged to contact multiple labs and cooperative monitoring groups such as the Central Coast Groundwater Coalition (CCGC) to obtain the best option for their given situations. Staff has worked closely with cooperative efforts to find mutually agreeable alternative monitoring and reporting programs that provide an incentive for the growers and other interested parties. For example, staff is currently corresponding with CCGC, which is developing a groundwater monitoring work plan.

Letter No.: 6
Page No.: page 3-4
Topic: Cooperative Monitoring

Comment: Fisher 1

The Proposed Ag Order 3.0 will impose substantial additional costs to growers. Due to the proposed changes, not only will reporting costs increase, but surface water monitoring and groundwater monitoring costs will increase

The potential impacts of the Proposed Ag Order 3.0 on the already successful cooperative coalition-based irrigated lands regulatory program are not only significant and costly, but also compromise the proactive structure of the program as cooperative coalition programs may no longer remain cost effective

The Proposed Ag Order 3.0's increasing costs, along with a recent court decision eroding cornerstones of the coalition program, such as confidentiality, threatens the longevity of the successful cooperative coalition approach for implementing the goals and requirements of the irrigated lands regulatory program, and hindering the focus on protecting and improving water quality.

Response:
See response to comment Groot 2.

Letter No.: 10
Page No.: page 4
Topic: Iterative Approach

Comment: Reck 2
[T]he Regional Board must analyze . . . new data and determine whether the 2012 waiver was successful and if stricter standards are necessary. And if the Regional Board's position is still, as it was in 2012, that an iterative program is the proper way to design a regulatory program for irrigated lands pollution, then each iteration must be stricter than the last to ensure continual improvement in water quality until the basin reaches compliance with water quality objectives. To change nothing from the 2012 Waiver until 2020 not only violates the Water Code and the Nonpoint Source Policy but the Regional Board's own strategy for implementing this program.

Response:
See response to comment Reck 6. Ag Order 2.0 departed significantly from Ag Order 1.0 by the incorporation of the tiering structure and associated requirements, groundwater monitoring, total nitrogen applied reporting, etc. Ag Order 3.0 expands by an estimated 1,100 ranches the total nitrogen applied reporting requirement. Nitrogen pollution is one of the most significant water quality impacts in the Central Coast Region; Ag Order 3.0 addresses this. Ag Order 3.0 also incorporates monitoring for neonicotinoid pesticides, the use of which has dramatically increased during the term of Ag Order 2.0. Ag Order 3.0 incorporates the toxicity indicator species *Chironomus* spp. that is sensitive to neonicotinoids. Ag Order 3.0 requires two years of pesticide monitoring, rather than one year, as did Ag Order 2.0. In short, Ag Order 3.0 marks a continued evolution of agricultural regulation based on what the board has learned from previous agricultural orders. Staff anticipates that the next, more-permanent order, Ag Order 4.0, will also mark further evolution based on threat to water quality.

Letter No.: 8
Page No.: page 10
Topic: Iterative Approach

Comment: Shimek 8

The Draft Order Does Not Require Adequate Monitoring to Verify that Management Practices Are Effectively Controlling Pollution…. The Draft Order does not contain adequate provisions to identify dischargers causing or contributing to exceedances and therefore cannot verify the effectiveness of implemented management practices.

The Draft Order relies on the iterative implementation of management practices to meet water quality objectives. Accordingly, monitoring requirements must be adequate to verify the effectiveness of implemented management practices. Further, the Order must contain adequate standards and enforcement mechanisms to ensure that improved management practices will be implemented when monitoring reveals that existing management practices are not effective.

Response:
Refer to response to Shimek 5 and Reck 6.

Letter No.: 8
Page No.: page 11
Topic: BMPs, monitoring and Iterative Approach

Comment: Shimek 9
The Draft Order Does Not Require Adequate Monitoring to Verify that Management Practices Are Effectively Controlling Pollution.

The Draft Order does not contain adequate provisions to identify dischargers causing or contributing to exceedances and therefore cannot verify the effectiveness of implemented management practices. The Draft Order relies on the iterative implementation of management practices to meet water quality objectives. Accordingly, monitoring requirements must be adequate to verify the effectiveness of implemented management practices. Further, the Order must contain adequate standards and enforcement mechanisms to ensure that improved management practices will be implemented when monitoring reveals that existing management practices are not effective.

Here, the monitoring requirements that would verify the effectiveness of management practices – i.e., individual monitoring – apply to an extremely small and fleeting group: only Tier 3 growers with irrigation water or storm water discharges to surface water from an "outfall" (locations where irrigation water and storm water exit a farm or otherwise leave the control of the discharger, after being conveyed by discrete structures or features that transport water, such as pipes, ditches, containment structures, or tile drains). Of the very small group (28) of Tier 3 dischargers, over one third self-report they have no discharge at all and therefore do not need to comply with individual discharge monitoring. To our knowledge, this has not been verified by RWQCB staff. It is hard to understand how there can be no discharge where fertilizers and pesticides are applied, outdoors, where it rains, and soils are permeable. Regardless, this point underscores the problem of a lack of monitoring.

Response:
Please see response to comments Shimek 5, Reck 6 and Reck 2.

Letter No.: 8
Page No.: page 8
Topic: Many expert panels

Comment: Shimek 3
"Expert" Panels. There have been five different "expert" panels convened to study the issue of agricultural pollution and sometimes more specifically, nitrates in groundwater. In addition, The Otter Project/Monterey Coastkeeper hired an independent expert to review the SWRCB's expert panel that reported out in 2014. Panels and consulted experts include:

- The Central Coast Regional Board engaged a number of experts….
- An Inter-Agency Nitrates Task Force was created in August 2010…
- The UC Davis Harter Report commissioned by the California Legislature…
- The Governor's Office convened a stakeholder group…
- The California Department of Food and Agriculture convened a Nitrates Tracking and Reporting Task Force
- Agricultural Expert Panel's
- Independent review of Agricultural Expert Panel's

Every panel (with the exception of the Governor's Office that avoided the issue) stressed the importance of balancing nitrogen applied with nitrogen removed or required.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, and Reck 7. We agree that better nitrogen management is necessary. Both Ag. Order 2.0 (2012-0011) and now proposed Ag Order 3.0 require the reporting of the total amount of nitrogen applied to the ranches growing crops with a high potential of loading nitrogen to groundwater. As of January 2017, staff has received more than 1,000 nitrogen application reports. Staff has assessed the nitrogen applied with the nitrogen needs of the crops, along with other nitrogen removal factors, to assess the potential for nitrogen loading to receiving waters. Staff has engaged the growers, the environmental community, agricultural technical assistance providers, the Central Coast Water Board, and the public and shared this assessment. As a result, technical service providers are moving forward with increased outreach to growers, educational efforts have increased, and Water Board staff has engaged in follow-up efforts with individual growers to address the nitrogen loading potential.

Additionally, growers with tier 3 ranches with high risk of loading nitrogen determinations are also required to develop and implement an irrigation and nutrient management plan and assess how effective the plans have been in reducing nitrogen discharges. Moreover, since 2012, growers have been required to monitor nitrogen concentration in all the domestic wells and the primary irrigation well located on each ranch. This data is routinely used by Central Coast Water Board staff to help characterize the level of nitrogen impairment and prioritize follow-up efforts.

Central Coast Water Board staff has sufficient information to prioritize efforts, by focusing on the highly impacted areas and following up with those growers whose nitrogen application are excessive and/or have the potential to be discharging high amounts of nitrogen.

Letter No.: 12
Page No.: page 5 and 8
Topic: Findings in attachment A

Comment: Mercer 10
…. Water Board Staff has inserted a number of new findings in the Order so that the Ag Waiver 3.0 has evolved into more than a simple Waiver renewal process. Unfortunately, some of these

new findings demonstrate contain prejudicial, assumptive or factual errors. Each of the newly proposed findings should be examined for accuracy and objectivity.

Discussion of the Recommendations of the Expert Panel is woefully lacking. For the sake of Water Board awareness, Expert Panel objectives and recommendations are described below. The Expert Panel was convened to address 13 very specific questions posed by the State Water Resources Control Board as part of a commitment made to the California Legislature….

As a result of an intensive and public process, the Expert Panel proposed: "a comprehensive regulatory program that is proactive. [The proposed program] focuses on efforts to minimize the loads of nitrates to the groundwater, without trying to understand all the details of the groundwater itself.

The final Expert Panel recommendations were controversial, for a number of reasons, and have only been partially adopted. The recommendations are as follows:
1. Establishment of coalitions to serve as the intermediate body between farmers and the Regional Boards.
2. Adoption of the A/R ratio as the primary metric for evaluating progress on source control, with eventual impact on the groundwater quality.
A/R = Nitrogen Applied/ Nitrogen Removed via harvest Nitrogen sequestered in the permanent wood of perennial crops
3. Development of a very strong, comprehensive, and sustained educational and outreach program. Such a program will require different materials and presentation techniques for different audiences, such as individuals who may need certification, managers of irrigation/nutrient plans, irrigators, and farmers/managers.
4. Creation and implementation of nitrogen/water management plans that are truly plans rather than just a listing of best management practices. These must be customized by features such as crop and locale
5. Reporting of key values (i.e., crop type, acreage, total nitrogen applied, and total nitrogen removed) by farms to the coalitions.
6. Trend monitoring of groundwater nitrate concentrations to track general aquifer conditions over multiple years.
7. Targeted research that will directly help the agricultural community to maintain and/or improve yields while simultaneously decreasing the A/R ratio on individual fields.
8. Use of multi-year reported values and monitored trends by the coalitions to inform the agricultural community of progress, to improve understanding of what is reasonable to attain and expect, and to sharpen improvement efforts

Response:
See response to comment Wineman 13. Staff was engaged with and participated in every Expert Panel meeting and is aware of the panel's discussions, recommendations, and findings.

Letter No.: 10
Page No.: page 12
Topic: Human Right to Water

Comment: Reck 1
Although the 2017 Draft Waiver acknowledges the human right to water, it fails to meaningfully consider the consequences of approving the proposed regulatory program on the safety, cleanliness, and affordability of the water in communities that rely on water that either is or will

be contaminated, as a result of the discharges it will allow to occur. (see 2017 Draft Waiver, Attachment A, p. 43.)

Response:
See response to comment Kane 1.

Letter No.: 13
Page No.: page 5
Topic: Human Right to Water

Comment: Kane 1
In order to comply with the Porter-Cologne Act and the Nonpoint Source Policy, the new waiver should, at a minimum, include:

Comply with the Human Right to Water Act. (Wat. Code § 106.3.) The Regional Board must consider whether this waiver promotes the State's declared policy that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." Although the Draft Waiver gestures towards the Human Right to Water Act, it does not actually consider whether the order will negatively affect residents' access to water. (See Draft Waiver, Attach. A at ¶ 12.)

Response:
See response to comment Reck 6, Reck 9, and Smith 3. Ag Order 3.0 requires dischargers to implement, and where appropriate update or improve, management practices, which may include local or regional control or treatment practices and changes in farming practices to effectively control discharges and meet water quality standards. In cases where it is determined that an agricultural discharge has negatively impacted a drinking water supply, Proposed AG Order 3.0 finding 21 states that "in compliance with Water Code section 13304, the Central Coast Water Board may require Dischargers to provide alternative water supplies or replacement water service, including wellhead treatment, to affected public water suppliers or private domestic well owners."

Letter No.: 11
Page No.: page 3-4
Topic: Human Right to Water

Comment: Taylor-Silva 6
New proposed finding 12 in Draft Attachment A identifies the newly adopted Human Right to Water statute and State Water Board Resolution No. 2016-0010. The last sentence of this proposed finding is inconsistent with State Water Board Resolution No. 2016-0010, in that the Draft Order states that "preventing and addressing discharges that could threaten human health by causing or contributing to pollution or contamination of drinking water sources of waters of the state *is the Central Coast Water Board's highest priority*, and as such discharges shall be regulated to the attain the highest water quality which is reasonable, considering all the demands being made on those waters and the total values involved." (emphasis added.) In contrast, State Water Board Resolution No. 2016-0010 states that preventing and addressing discharges that could threaten human health "*are among* the Water Board's highest priorities" - not that it is the highest priority. While Grower-Shipper understands the need to protect human health, the finding as proposed fails to find a balance between ensuring that individuals within

the Central Coast region have access to safe and affordable drinking water and that economic activities associated with discharges are also key to the region's economic health. Further, the Central Coast Water Board's charge is to protect and maintain all beneficial uses, including aquatic life, agricultural, industrial, recreational, and other beneficial uses of the water. To claim [in proposed finding 12] that one beneficial use is the Central Coast Water Board's "highest" priority is in conflict with…Porter-Cologne…

Altering the…priorities through this Draft Resolution is in conflict with the…Basin Plan. The first stated goal is to "[p]rotect and enhance all basin waters, surface and underground, fresh and saline, for present and anticipated future uses, including aquatic environmental values." (Id.) There are no planning goals in the Basin Plan that state addressing discharges that threaten the human right to water is the…highest priority. Accordingly, the finding should be revised to be consistent with State Water Board Resolution No. 2016-0010.

Response:
"Existing law establishes various state water policies, including the policy that the use of water for domestic purposes is the highest use of water." (Water Code §. 106; Leg. Counsel's Digest, AB 685.)

AB 685 is the legislation that established the Human Right to Safe Drinking Water law. It is appropriate for the Central Coast Water Board to recognize these priorities, particularly in the context of current issues in the Central Coast Region.

Such prioritization language adds clarity that activities to protect drinking water are the highest priority, but does not diminish the Central Coast Water Board's full authority or discretion to protect and maintain all beneficial uses, including aquatic life, agricultural, industrial, recreational, and other beneficial uses of the water. In nearly all cases, the drinking water quality standard also protects water quality for other beneficial uses. In some instances, protecting water quality for drinking water uses may not be sufficient to protect aquatic life (e.g. nutrients). It is appropriate for the Central Coast Water Board to consider and adopt its own priorities independent of the State Water Resources Control Board.

Letter No.: 8
Page No.: page 8-9
Topic: Human Right to Water

Comment: Shimek 6
The Human Right to Water. Water Code section 106.3 declares that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes, and requires all relevant state agencies to consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria. The State Water Board Resolution No. 2016-0010 identifies the human right to water as a top priority and core value of the state and regional Water Boards, and affirmed the State Water Board's commitment to consider how its activities impact and advance the human right to safe, clean, and affordable water to support basic human needs. Although the 2017 Draft Waiver acknowledge the human right to water, it fails to meaningfully consider the consequences of approving the proposed regulatory program on the safety, cleanliness, and affordability of the water in communities that rely on water that either is or will be contaminated, as a result of the discharges it will allow to occur. (see 2017 Draft Waiver, Attachment A, p. 43.).

Response:
Please see response to comment Reck 9. The Draft Order retains finding 21, which states that "in compliance with Water Code section 13304, the Central Coast Water Board may require Dischargers to provide alternative water supplies or replacement water service, including wellhead treatment, to affected public water suppliers or private domestic well owners."

The Human Right to Water resolution referenced by proposed Ag Order 3.0 includes a draft workplan with a timeline of activities, including assisting individuals in small communities with the safe drinking water grant project, using GAP funds to implement domestic well testing in San Luis Obispo county, and a CCAMP-GAP project to sample domestic wells throughout the region with an emphasis on high-risk areas and disadvantaged communities.

Letter No.: 8
Page No.: page 9
Topic: Human Right to Water

Comment Shimek 7:
Literally hundreds of small communities are drinking from water systems contaminated by naturally occurring or anthropogenically caused. The SWRCB created a report, Communities that rely on contaminated groundwater as a source for drinking water (Attachment 15). Of the 680 small community water systems, 205 were contaminated by nitrates above the MCL and 36 systems were contaminated by 1,2-dibromo-3-chlropropane (DBCP), a legacy pesticide. "Communities" captured in the report are the tip of the iceberg; as stated, the report does not include small systems, domestic well, non-community small systems (see definitions with the report). It is very conservative to assume that many tens of thousands of people are drinking tainted water on the Central Coast alone.

Response:
Nitrate contamination of drinking water is one of the Central Coast Water Board's top priorities, a priority which is underscored by the adoption of the Central Coast Water Board's Human Right to Water Resolution, which states that "preventing and/or addressing discharges that could threaten human health by causing or contributing to pollution or contamination of drinking water sources of waters of the state, are the Central Coast Water Board's highest priorities." To address this priority, the Central Coast Water Board has assigned staff and financial resources from irrigated lands, grants, CCAMP-GAP, groundwater, and enforcement programs to focus on protecting human health and ensuring the human right to water. Staff has prioritized monitoring of domestic wells and sending notification letters to affected individuals. Staff will continue to monitor domestic wells for nitrate in the near future and will consider monitoring for other pollutants, such as pesticides with high potential to contaminate groundwater, in future orders and MRPs. Other requirements, such as total nitrogen applied reporting, allow for better understanding of nitrogen applications that may have lead or may lead to groundwater nitrate contamination, and the Irrigation and Nutrient Management Plan requirement has the long-term goal of reducing nitrate loading to groundwater.

Letter No.: 12
Page No.: page 5
Topic: Finding in attachment A

Comment: Mercer 11
… Water Board Staff has inserted a number of new findings in the Order so that the Ag Waiver 3.0 has evolved into more than a simple Waiver renewal process. Unfortunately, some of these

new findings demonstrate contain prejudicial, assumptive or factual errors. Each of the newly proposed findings should be examined for accuracy and objectivity.

Finding 12: Human Right to Water.
This finding would be more balanced if it also reflected the considerable activity that has occurred to address Central Coast drinking water since 2012.

- The Human Right to Water Act was adopted in 2014.
- The Central Coast Groundwater Coalition scientifically characterized drinking water on the Central Coast.
- Individual Growers have provided alternative sources of drinking water or treatment of impaired drinking water wells on their operations.
- Collectively, growers in the Salinas Valley are working towards funding additional drinking water projects.

From an Agricultural perspective, the most disappointing aspect of this issue is the fact that the Environmental Community has rejected offers from the Agricultural community to collaborate, and continues to rely, instead, upon an aggressive and divisive legal solutions.

Response:
Section 106.3 was added to the California Water Code in September 2012 and declares that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption and other domestic uses. On February 16, 2016, the State Water Board adopted Resolution No. 2016-0010, which identifies the human right to water as a top priority. Ag Order 2.0 was adopted in March 2012, marking the beginning of required domestic groundwater well monitoring in central coast agricultural orders. Some growers have already provided safe drinking water to people living in residences located on farms, and in some cases growers have provided safe drinking water proactively, even before domestic groundwater well data from Ag Order 2.0 was obtained, before section 106.3 was added to the California Water Code, and before State Water Board Resolution No. 2016-0010 was adopted.

Letter No.: 14
Page No.: page 1
Topic: Monitoring and Reporting Program

Comment: Smith 2
How does the Water Board plan to manage compliance with the Ag Order 3.0 on management practice implementation and effectiveness? The Board must analyze the monitoring data collected from each time period to determine trends – provide feedback to growers on ways to improve. The monitoring data must be put to use!

Growers should be given an annual report back by the Regional Board and/or Cooperative Monitoring Program (or some other consulting or research group) about what they are doing right and wrong - with specific strategies for improvement.

Response:
Monitoring data and other information are summarized and shared with the public, growers, and other interested parties during water board meetings, grower workshops with agricultural consultants, and other means. For example, data is shared with UC Cooperative Extension and California Department of Food and Agriculture as they move forward with educational opportunities for growers and consultants. Preservation Inc. provides annual reports and

presentations describing the cooperative monitoring program's results and trends. Staff makes every effort to provide this information at workshops and other events hosted by commodity groups, UC Cooperative Extension, CDDFA FREP, and others, where grower attendance is typically high.

Letter No.: 6
Page No.: page 7
Topic: MRP Process

Comment: Fisher 9
The specific actions and inactions of the Central Coast Water Board Executive Officer in adopting the Revised 2016 MRP Orders include:

-Failure to comply with applicable legal procedures in adopting Revised 2016 MRP Orders, including the reasonableness factors of Water Code section 13267(b)(1);

-The unlawful adoption of the Revised 2016 MRP Orders by the Central Coast Water Board's Executive Officer with no public notice or opportunity for parties to provide public comment or rebuttable testimony with respect to its content and application to Petitioners' members;

Farm Bureau, along with other Central Coast agricultural entities petitioned the State Water Board on September 21, 2016, asking for review of the actions and inactions of the Central Coast Regional Board Executive Officer in adopting the Revised 2016 MRP Orders. Although the Ag Order 3.0 incorporates the Revised 2016 MRP Orders and makes additional changes, Farm Bureau feels the arguments made in its September 21, 2016 petition are still pertinent and applicable to the draft Ag Order 3.0, and thus incorporates all such arguments within this comment letter.

Letter No.: 2
Page No.: page 1-2
Topic: MRP Process

Comment: Schmidt 1
Ag Waiver and Ag Order v2.0. Prior to the adoption of the Ag Waiver in 2004 and the Ag Order v2.0 in 2012 RWQCB staff and agricultural representatives discussed the format, duration and objective of the surface water monitoring program. The resulting MRPs were available to all interested parties prior to adoption of the Ag Waiver and Ag Order, and well in advance of the first monitoring event….. 2017 MRP The MRP dealing with surface water monitoring for 2017 was signed by RWQCB Executive Officer John Robertson on August 11, 2016 and again, with modifications not relevant here, on August 22, 2016. This MRP was before the RWQCB Board as an informational item on December 8, 2016.

Letter No.: 11
Page No.: page 11
Topic: MRP Process

Comment: Taylor-Silva 26
We also encourage the Central Coast Water Board to consider development of a Technical Advisory Group that includes agricultural representatives to evaluate potential MRP revisions prior to finalization. This we help to ensure that proposed changes are technically and

scientifically sound. More importantly, and as commented below, an proposed revisions to the MRPs need to be made available for public review and comment prior to adoption.

Response: The Central Coast Water Board has delegated authority to the Executive Officer to revise monitoring and reporting programs. This issue was extensively discussed before the Central Coast Water Board at its December 8-9, 2016 in agenda item 11. Stakeholders provided both verbal and written comments to the Board, and the Board did not direct the Executive Officer to reverse or retract any portion of the August 2016 revised monitoring and reporting programs (MRPs). The MRPs for Ag Order 3.0 contain monitoring requirements for 2017 monitoring that are nearly identical to the August 2016 revised MRPs. The MRPs for Ag Order 3.0 include an addition of one neonicotinoid pesticide (there were five included in the August 2016 revised MRPs), but this additional pesticide does not significantly increase the cost of implementing the MRPs because it is included in the suite of neonicotinoid pesticides analyzed by the laboratory. The Central Coast Water Board's website includes documents from the December 8-9, 2016 meeting.
http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2016/december/item11/index.shtml

Letter No.: 7
Page No.: page 3-4
Topic: MRP Process

Comment: Wineman 8
During the implementation of the 2012 Order we have been frequently and severely disappointed with the liberties taken with MRP language such as "including but not limited to," "specified by the Executive Officer," and the Executive Officer's ability to change the MRPs at will and without a public or Water Board review process. We believe that placing more specific requirements in the Order, rather than the MRPs, and deleting such board authority delegations would smooth implementation and perceived abuses of power.

Action: Place key requirements in the Order, rather than MRPs, and eliminate vague references of authority to provide certainty.

Action: Future substantive changes to the MRPs should be subject to a public process.

At an absolute minimum, we ask for the incorporation of a mechanism to ensure that future substantive changes to the MRPs are subject to a public notice and review process.

Response: See response to comment Fisher 9, Wineman 5.

Letter No.: 7
Page No.: page 4
Topic: MRP track changes

Comment: Wineman 9
It is important to note that the "Track Changes" version of the draft MRPs compare the August 22, 2016 MRPs to the 2017 MRPs—not the MRPs as revised by the State Water Board Order in September 2013. **This comparison is misleading and a more transparent comparison of**

the 2013 and 2017 versions would show a significant expansion of reporting requirements in the 2017 MRPs.

Response:
The track changes versions of the monitoring and reporting programs (MRP) for the proposed Ag Order 3.0 were created to show the changes made between the proposed MRPs and the latest, which are the August 2016 revised MRPs. Also note that a side-by-side comparison was provided in the staff report of agenda item 11 at the December 8-9, 2016 Water Board meeting (see response to comment Fisher 9), comparing the August 2016 revised MRPs to the previous MRPs.

Letter No.: 7
Page No.: page 5
Topic: MRP public process

Comment: Wineman 10
We have been extremely disappointed in the "public process" regarding the August 2016 MRP release and draft 2017 Order development. We believe that a more transparent process with open dialogue would have resulted in a better process and outcome.

During early, formative Board meetings, the Staff reports and presentations were falsely couched as **"informational items" and did not convey the substantive changes being contemplated when, in fact, substantive Board discussion and changes in direction occurred only *after* the close of public comment.**

In July, the Staff report for Agenda Item 6 included the following language: "The proposed 2017 ag order (version 3.0) will be largely unchanged from the current order in most aspects, but will have new compliance dates…" and "…without a large degree of change from current version." This position was also conveyed in the Staff presentation. However, after public comment closed, Board discussion resulted in Staff interpreting this discussion as direction to make very substantive changes that emerged as the August 2016 MRPs. **The specifics of these MRP changes were never disclosed or afforded public review prior to the Board issuing direction in July.**

We are deeply disappointed at the "Public Process" involved in drafting the 2017 Order. This comment letter has been the first opportunity to provide specific feedback on the substantial draft changes that emerged outside of a transparent public process.

Response: See response to comment Fisher 9, Livengood 1.

Letter No.: 7
Page No.: page 5
Topic: MRP public process

Comment Wineman 11:
In September, the Staff report for the "informational" Agenda Item 11 listed potential changes to dates, but did not reference a conceptual or specific Staff recommendation regarding the expansion of the Total Nitrogen Applied reporting requirement. **The Staff presentation did include a passing reference to the potential expansion of the Total Nitrogen Applied**

Requirement but at less than 1 minute in total duration, it did not convey any specific details or Staff recommendations that would later emerge only after public comment had closed (Audio 1-TNA mentioned from minute 20:15 to 21:05; Public Comment Opened at Audio 1, minute 24:00). The Staff PowerPoint presentation was not posted online until after the meeting and the public never had the opportunity to see the "Extra Slides" that guided Board discussion until after public comment had closed. **The public was not provided an adequate opportunity to comment on the expansion of the TNA reporting prior to Board issuing direction in September. We would have prepared more specific comments if the nature of the solicited discussion or Staff recommendations for the TNA reporting expansion had been made publicly available.**

Response:
See response to comments Sutton 11 and Livengood 1. Staff responds to Water Board member questions during public meetings as they arise. Therefore, staff must attempt to predict what the Board may wish to discuss and be prepared to respond; hence staff's use of extra slides that are displayed only when necessary. Staff released draft Ag Order 3.0 on November 1, 2016, originally providing a 63-day public comment period ending on January 3, 2017. The December 8-9, 2016 board meeting included an agenda item entitled "Irrigated Lands Program Update: Draft 2017 Agricultural Order 3.0.," where the public was given an opportunity to provide public comment near the middle of the public comment period. Staff subsequently granted an extension of the public comment period to January 9, 2017. The Water Code does not require a public comment period for waivers of waste discharge requirements or monitoring programs. The Bagley-Keene Open Meeting Act requires only ten days public notice and an opportunity to address the board before the board makes a decision, which it did not do in September. The public notice, comment and outreach for this order and the MRPs far exceeded statutory requirements.

Letter No.: 12
Page No.: page 2
Topic: MRP harmonization

Comment: Mercer 15
Finally, there remains confusion about the 2017 Monitoring Reporting Programs (MRPs) that were adopted by the Water Board Executive Officer in late 2016. There remains uncertainty about how these newly adopted MRPs will harmonize with the MRPs to be adopted as part of R3-2017-0002? When does one set of MRPs terminate and the other begin?

Response: The monitoring and reporting program (MRP) associated with the proposed Ag Order 3.0, when adopted, will supersede the current MRPs, which are those signed by the Executive Officer in August 2016. Requirements in the proposed Ag Order 3.0 MRPs vary only slightly from the August 2016 MRPs for the 2017 monitoring year.

Letter No.: 13
Page No.: page 4
Topic: Tier Structure

Comment Kane 4:
In order to comply with the Porter-Cologne Act and the Nonpoint Source Policy, the new waiver should, at a minimum, include:

. . .

- Changes to the tiering system to ensure that all growers who contribute to exceedances are subject to meaningful regulation and monitoring. These might include:
  - Adding pyrethroids and neonicotinoids to the list of pesticides the use of which automatically requires a grower to be placed in Tier 3. These pesticides are known to be in heavy use in the Central Coast and are known to be causing serious surface and ground water impairments.
  - A significant increase in the percentage of both operations and acreage that are subject to Tier 3 requirements.

Response:
See response to comment Reck 7, which addresses consistency with the Nonpoint Source Policy. Please also see response to comment Shimek 2.
Ag Order 3.0 retains conditions 18 and 19, which allow the Executive Officer to change the tier of a particular ranch on a case-by-case basis based on individual threat to water quality.

Finally, the proposed Ag Order 3.0 is an interim order with a term of three years. The monitoring and reporting requirements of Ag Order 3.0, including pyrethroid, neonicotinoid, and toxicity monitoring, is intended in part to help provide staff the information necessary to develop future agricultural orders.

Letter No.: 14
Page No.: Appendix (master's thesis), p 22
Topic: Tier Structure
Notes: Comment also repeated in email

Comment: Smith 4
In order to address agricultural pollution and protect communities the new 2017 Ag Order must Include: The tier-system should be reformed to be locally specific to regulate watersheds, rather than by individual property owners and arbitrary property lines. Watershed monitoring would create the social incentives for peer-to-peer enforcement among farmers, and encourage cooperation to find solutions to nitrogen over-loading and pollution problems.

Response:
The tiering structure of proposed Ag Order 3.0 does not use arbitrary property lines, but incorporates a system based on risk to water quality. Farms using pesticides known to cause toxicity, in close proximity to waterbodies listed as impaired on the Clean Water Act section 303(d) list, and size help staff to prioritize regulatory efforts based on water quality risk.

Proposals for growers to conduct cooperative watershed and subwatershed monitoring are welcome. It is the growers who must cooperate to develop a proposal.

Letter No.: 8
Page No.: 7
Topic: Imidacloprid and high risk

Comment: Shimek 48
As noted above, the noenicitinoid imidacloprid has become the largest selling pesticide in the world, is extensively used in Central Coast agriculture, is persistent in the environment, is highly soluble and poses a risk for groundwater contamination, and is of growing concern.

Strawberries and wine grapes, important crops of the Central Coast, use imidacloprid extensively. Chlorpyrifos and diazinon use, already declining by 2008, were replaced by pyrethroid pesticides (permethrin) and imidacloprid (attachment 3) -- yet the RWQCB continued to regulate the chemicals no longer in use and has failed to regulate the chemicals replacing them. While the Draft Ag Order finally begins to monitor imidacloprid (in surface water, but not in groundwater), the Order continues failing to regulate imidacloprid despite the documented impairments it is causing. The recent DPR fact sheet on imidacloprid is attached at Attachment 9.

Crops and growers using imidacloprid should be considered high-risk and should be placed in higher tiers (or all growers should be treated equally under an entirely new Ag Order). The down-tiering of CSIP growers should be immediately discontinued and growers using these persistent and highly toxic chemicals should not be allowed to leave the Ag Order program for a less regulatory general order.

Response:
See response to comment Shimek 2, Kane 4. The updated MRPs include monitoring for pyrethroids and neonicotinoids, including imidacloprid. It should also be noted that, although there has been a clear decrease in usage of chlorpyrifos and diazinon, both chemicals are still actively applied in the region.

Tiering criteria include whether chlorpyrifos and/or diazinon is used on the farm. This criterion was used in Ag Order 2.0 development because these two pesticides were contributing to toxicity in surface waters. These two chemicals are still in use, although their use has significantly declined. Ag Order 3.0 includes new monitoring requirements to assess pyrethroid and neconicotinoid pesticides in surface receiving water quality monitoring as well as requiring use of the toxicity indicator *Chironomus* spp., which is sensitive to neonicotinoids. Data from these monitoring requirements will help inform staff how to move forward with developing regulatory requirements in future orders; it is premature to simply exchange chlorpyrifos and/or diazinon with neonicotinoid or alternative pesticide groups.

Letter No.: 8
Page No.: 7
Topic: Tiers have failed

Comment: Shimek 49
Tiering structure. During the development of the current Ag Order a tiering structure was developed to focus on higher risk growers. Tier One was characterized as less regulatory than the failed 2004 Ag Order, Tier Two was characterized as about the same amount of regulation, and Tier Three was characterized as more regulatory. Initially, stakeholders were told that approximately 11% of farms and 54% of the acreage would be within Tier Three. By the time the Ag Order was approved in 2012, those numbers had slipped to 2.3% of farms and 14% of acreage. As of May 2015, those numbers had further slipped to 1.1% of farms and 4.6% of acreage (attachment 3). As of today, only .65% of farms and 4.7% of acreage are within Tier Three (Shimek Declaration 2017 Attachment 10). The tiering structure has entirely collapsed and the net result is that the current and draft Ag Orders are less regulatory than the failed 2004 Ag Order. In other words, we have gone backwards. As documented here, the staff and Board have been aware of this failure for many years and the Draft Ag Order has failed to correct this egregious error.

A new Ag Order should treat all farms equally and the level of regulation should be greatly increased.

Response: See response to comment Shimek 48. Tiering criteria include pesticide use, farm size, and whether the farm has a discharge to a Clean Water Act section 303(d) listed water. These criteria are deemed higher risk to water quality. The decrease in the number of tier 3 farms has resulted from farms no longer meeting tier 3 criteria, in many cases due to their eliminating the use of chlorpyrifos and diazinon or eliminating surface water discharge from the farm, thereby reducing the risk to water quality. Staff acknowledges the potential threat to water quality from these and other ranches and will continue to develop solutions that address dynamic causes of threat.

Letter No.: 8
Page No.: 10
Topic: Tiers have failed

Comment: Shimek 50
Any increased stringency of the current or draft Ag Order is based primarily on the Tier 3 requirements. But, as noted above, Tier Three has entirely collapsed. Thus, only an insignificant fraction of dischargers and irrigated lands are subject to more stringent requirements than under the failed 2004 Waiver and a large proportion of growers are subject to far less stringent requirements.

Response:
See response to comments Reck 6 and 7. Proposed Ag Order 3.0 and associated monitoring and reporting programs include an additional test organism for toxicity testing; monitoring for commonly used pesticide classes including pyrethroids, neonicotinoids, organophosphates, and others; and the expansion of total nitrogen applied reporting to a larger subset of growers. The surface water monitoring applies to all ranches, and the total nitrogen applied reporting applies to both tier 2 and tier 3 ranches growing high risk crops, with a potential expansion of 1000 or more farms reporting.

Letter No.: 8
Page No.: 11
Topic: Tier 3 discharges

Comment: Shimek 51
Of the very small group (28) of Tier 3 dischargers, over one third self-report they have no discharge at all and therefore do not need to comply with individual discharge monitoring. To our knowledge, this has not been verified by RWQCB staff. It is hard to understand how there can be no discharge where fertilizers and pesticides are applied, outdoors, where it rains, and soils are permeable. Regardless, this point underscores the problem of a lack of monitoring.

Response:
See response to comment Shimek 49. There are over 4000 ranches enrolled in the agricultural order stretching from Santa Clara to Santa Barbara counties. Grower compliance with the order, in part, relies on self-reporting, such as accurate grower completion of the eNOI and annual compliance forms, which help staff determine whether a discharge is occurring. Staff verifies self-reporting, where and when warranted and possible. Staff reminds growers that

accurate reporting, including whether a surface water discharge is occurring, is required. For example, staff engaged in a series of outreach events just prior to the 2016-2017 winter season, which reminded growers of this requirement.

Letter No.: 4
Page No.: page 5
Topic: Attachment A

Comment: Groot 1
We note that a number of these findings continue misrepresentations that were adopted into Ag Waiver 2.0. For example, specific statements about number of impaired drinking water wells and summary findings about nitrogen applications are troublesome to the regulated community and inaccurate in their representation. We request that these findings be addressed in a separate track, aside from the approval of Ag Waiver 3.0, so the regulated community can meet with Regional Water Board staff to resolve the inaccuracies presented in Attachment A (and most importantly, before development of Ag Waiver 4.0).

Response:
The additional findings listed in Attachment A are relevant and are necessary to inform the public about the water quality conditions and to support the requirements contained in Ag Order 3.0.

Regarding the domestic well testing results, the findings are based on the groundwater monitoring data required during the implementation of Ag Order 2.0.

Staff will engage with the public and stakeholders in a comprehensive outreach process during the development of the Ag Order 4.0.

Letter No.: 12
Page No.: page 5
Topic: TMDL

Comment: Mercer 1
Proposed New Findings: Ag Order. Finding 24. Edits positively clarify the previously circular language pertaining to compliance with TMDL programs. Note: refers to DRAFT ORDER NO. R3-2017-0002, page 21.

Response:
The added language simply clarifies that dischargers complying with requirements outlined in Ag Order 2.0 are in compliance with applicable Total Maximum Daily Loads.

Letter No.: 12
Page No.: page 5 and 7
Topic: Harter report

Comment: Mercer 2
… Water Board Staff has inserted a number of new findings in the Order so that the Ag Waiver 3.0 has evolved into more than a simple Waiver renewal process. Unfortunately, some of these new findings demonstrate contain prejudicial, assumptive or factual errors. Each of the newly proposed findings should be examined for accuracy and objectivity.

Finding 60: Salinas Valley Groundwater Assessment in the "Harter Report"
Staff states the 2012, University of California, Davis Report titled "Addressing Nitrate in California's Drinking Water" (aka "The Harter Report") "documents severe nitrate contamination in the Salinas Valley and Tulare Lake Basin". An independent hydrogeological evaluation of the report found the following about the Harter Report's
Salinas Valley Groundwater Assessment:
"The main Harter report and eight associated technical reports are about 1,200 pages long. Of these, only the following are dedicated to analyzing nitrate in groundwater in the project areas:

- *Ninety-three pages are devoted to describing the occurrence of nitrate in groundwater in Technical Report 4, Groundwater Nitrate Occurrence, for both the Tulare Lake Basin and Salinas Valley.*
- *About 35 pages of the 93 pages describe the development of a database of nitrate concentrations and well data used to conduct the study.*
- *The principal chapter analyzing nitrate occurrence in BOTH project areas is only about 50 pages in length. The Salinas Valley is a subset of the 50 pages.*
- *Thus, the proportion of the final report related to groundwater nitrate occurrence is only about five to eight percent of the total 1200 page report. Furthermore, the Harter Report did not rely on data generated by Monterey County Water Resources Agency (MCWRA), the public agency with the most extensive network of private irrigation wells that has been used for ongoing monitoring of groundwater elevations, quality, and extractions in the Salinas Valley for over 20 years. Since the Harter Report did not involve MCWRA, the report is much less detailed and informative than about the Salinas Valley than it could have been.*

This is not to say that groundwater and drinking water impairments in the Salinas Valley do not exist. Agriculture acknowledges there are issues and in fact, has taken its role in the groundwater management seriously, as evidenced by actions that are listed in the Finding 12 above. Also, the Agricultural Community has historically and currently leads efforts to improve groundwater recharge and address seawater intrusion through largescale, visionary projects in the Santa Maria and Salinas Valleys.

Response:
The State Water Resources Control Board contracted with University of California, Davis to conduct an independent investigation and report on the findings and potential solutions for nitrate in groundwater in the Tulare Lake Basin, and most applicably to the Central Coast region, in the Salinas Valley. The resulting State Water Board report, titled "Addressing Nitrate in California's Drinking Water" (also known as the Harter Report), is a well-known documentation of nitrate contamination and its impacts and costs, and also includes policy options. The information gathered and summarized in the report is pertinent to nitrate issues in the Central Coast, and therefore was included as a finding in Ag Order 3.0.

Staff acknowledges and appreciates growers' efforts to address the nitrate pollution in groundwater; these leaders will continue to play an important role in achieving the common goal of improved agricultural practices and water quality.

Letter No.: 12
Page No.: page 5 and 11
Topic: Management practices

Comment: Mercer 3
… Water Board Staff has inserted a number of new findings in the Order so that the Ag Waiver 3.0 has evolved into more than a simple Waiver renewal process. Unfortunately, some of these new findings demonstrate contain prejudicial, assumptive or factual errors. Each of the newly proposed findings should be examined for accuracy and objectivity.

Finding 137: Management Practices - Please consider amending the newly added language to read "The 2004 and 2012 Agricultural Orders required dischargers to describe implementation of management practices in the Farm Plan and the 2012 Agricultural Order required dischargers to report *a subset of the Farm Plan's* management practices implemented in an annual compliance form." The proposed language, without amendments, could lead one to expect to find all Farm Plan practices in the Annual Compliance Form.

Response:
The finding has been edited consistent with the commenter's recommendation.

Letter No.: 12
Page No.: page 5 and 11
Topic: Grants

Comment: Mercer 4
… Water Board Staff has inserted a number of new findings in the Order so that the Ag Waiver 3.0 has evolved into more than a simple Waiver renewal process. Unfortunately, some of these new findings demonstrate contain prejudicial, assumptive or factual errors. Each of the newly proposed findings should be examined for accuracy and objectivity.

Finding 153: Grants - Please consider adding information to describe how the $2 million in grant funds have been spent for agricultural-related projects on the Central Coast. If the funds have been spent for on-farm water quality improvement projects, then, why hasn't the agricultural community been informed about the results of the grant projects? Or perhaps, the grant funds have been spent on agricultural water quality research such as the Granite Lab neonicitinoid study? The public and the agricultural community deserve to better understand how grant funds are being spent.

Response:
The $2 million referred to in the finding were allocated to the Central Coast Region to implement projects between 2013 and 2016. This funding was granted under the 319h statewide rigorous process for projects that can demonstrate a significant reduction in discharges. The list of projects funded to address nonpoint source discharges is listed below:

Project Title	Funds (1000s)	Grantee	Dates	Scope of Work
Morro Bay Agricultural Water Quality Enhancement Program	**$465**	**Coastal San Luis Resource Conservation**	**6/30/2011 12/31/2016**	**Design and implement ag water quality improvement projects that will result in significant reductions in pollutant loading to Morro Bay.**

		District		
Morro Bay Watershed Erosion Prevention Project	**$415**	**The Bay Foundation of Morro Bay-NEP**	**1/31/2013 6/30/2016**	**Reduce excess sediment delivery to streams by implementing cost effective erosion control measures applied to high priority roads along Chorro Creek and its tributaries.**
Rural Roads Erosion Control Assistance Project	**$587**	**Resource Conservation District of Santa Cruz County**	**4/1/2013 06/30/16**	**Provide technical and cost-share assistance to private road associations to construct BMPs that reduce road derived sediment loads in critical TMDL-listed watersheds.**
Pinto Lake Restoration Project	**$750**	**City of Watsonville**	**6/5/2015 6/30/2018**	**Restore natural lake by treating nutrient loading that is driving toxic cyanobacteria blooms.**
Oso Flaco Lake Planning and Assessment Project	**$161**	**California Department of Parks and Recreation**	**3/1/2016 6/30/2018**	**Assess the extent of legacy pesticide contamination and develop a plan of action for dealing with the contamination.**
Total	**$2,379**			

The grants program information is available to the public on our webpage. And for more information, the public can contact the grants program manager at the Central Coast Water Board. For a complete list of all the currently active funded projects, visit: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/grants/docs/apr2016_open_grants.pdf

For an inventory of all the completed grant projects in the Central Coast Region, visit: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/grants/docs/completed_grants_apr11.pdf

For more information about the grant program in the Central Coast Region, visit: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/grants/index.shtml

Letter No.: 1
Page No.: page 2

Topic: Groundwater Monitoring

Comment: Sutton 6
As there can be numerous Assessor Parcel Numbers within a single farm/ranch ownership (there are known to be 10 or more APNs within a single farm/ranch ownership), it is not appropriate to require that agricultural wells be sampled for every assessor APN. Farm Bureau recommends language that clearly states that sampling is for the primary irrigation well per farm or ranch ownership.

Response:
To clarify, only the primary irrigation well located on each ranch/farm, regardless the number of APNs that make up such ranch/farm, is required to be monitored in proposed Ag Order 3.0. Proposed Ag Order 3.0 requires that all wells that could be used for domestic purposes be sampled; this could include multiple wells on multiple parcels.

Letter No.: 1
Page No.: page 2
Topic: Groundwater Monitoring

Comment: Sutton 7
The new definition of drinking water wells that includes groundwater wells that "*may be used* for human consumption, cooking, or sanitary purposes" means in many cases that all wells in an APN would have to be listed as a domestic well… this definition and requirement does not recognize the various provisions that an agriculturalist has implemented (such as alternative water availability)… This only increases the expense to the grower with no additional water quality benefit.

Response:
Wells that are or will be used solely for irrigation purposes are not included in this definition. However, if a well could be used for a domestic use, such as drinking water, even if alternative water is available, then it must be sampled. This helps ensure that potential users are not drinking polluted water.

Letter No.: 15
Page No.: page 1
Topic: Groundwater Monitoring

Comment Bailey 1:
Right now, the Draft Ag Order requires one-time sampling of drinking water well in the 1st year of 3-year order. In keeping with the theme that the frequency of the well sampling and testing need to increase for the growers to adopt the best management practices required of them and to protect public health and the environment, EJCW would urge the Board to consider including in the Ag Order additional triggers for sampling and testing like a change in the tenancy of a ranch. This will help each new tenant grower with budgeting what fertilizer to apply, relative to what is then in the groundwater. Then everyone will have the bare minimum information they need to budget nitrogen applications accordingly. The problem with order now is that it only applies to the tenant then resident in 2017. Someone who comes onto the property in 2018 would, theoretically, have no legal requirement to test to manage to the standard.

Finally, some additional attention should be given to the effectiveness of notifications that are provided to the users of the wells that are found to be above the standard. EJCW experience

shows that they have not been as effective at conveying the message to all who should have it, including mothers of young children, as they should be.

Response:
Proposed Ag Order 3.0 and associated MRPs require two rounds of sampling (not a one-time sampling) of all drinking wells in 2017.

The requirement to test drinking water wells is to protect human health. Proposed Ag Order 3.0 requires that users of a domestic well that has a drinking water exceedance be notified, regardless of tenant changes. Farm tenants should use irrigation wells for nutrient management. The proposed order requires that the primary irrigation well be sampled twice. As stated above, the proposed order requires that users of domestic wells be notified when an exceedance occurs. Notification letters are publicly available. We support efforts of environmental justice groups and other groups to reach out to domestic well users.

Letter No.: 4
Page No.: page 4
Topic: Groundwater Monitoring

Comment: Groot 9
Further clarification is required on the sampling of all wells within the boundaries of any farm or ranch; farm operators are often not responsible for all wells within the parcel when negotiating their lease contracts. If requirements are included to sample all wells on a farm or ranch, this will initiate a conflict with their landlord as well as impose a possible trespass violation on that farm operator. We questions that this language is clear enough to avoid any potential legal risks for farm operators enrolled in the irrigated land program because they are lessees and not land owners of the farm or ranch.

Response:
In cases the commenter refers to, the grower should make every effort to sample the domestic well; if that is not possible, the grower should contact staff to address the issue. Note that both the operator and landowner are responsible for fulfilling this requirement. Staff will work with the operator and landowner to comply with the requirement.

Also refer to response to comment Sutton 6.

Letter No.: 6
Page No.: page 8
Topic: Groundwater Monitoring

Comment: Fisher 3
[F]urther clarification is required on the use of Assessor Parcel Numbers rather than the primary irrigation well per farm or ranch ownership since a single farm or ranch can have numerous APNs. If requirements are included to sample all wells on a farm or ranch, each farm would be required to monitor all wells, even landowner or tenant wells that the farmer may not have legal authority to access, creating a landlord/tenant and trespass issue.

Response:
Refer to responses to comment Sutton 6 and Groot 9.

Letter No.: 6
Page No.: page 8
Topic: Groundwater Monitoring

Comment: Fisher 4
Clarification is also needed on the change from sampling “all wells that are used or may be used for drinking water purposes” to wells that “may be used for domestic use purposes.”…these changes go far beyond gathering information to protect drinking water and fail to recognize or allow for site-specific considerations already in place, such as onsite treatment, signage, and/or the availability of alternative drinking water supplies.

Response:
Refer to responses to comments Sutton 6 and 7 and Groot 9. The changed language referred to by the commenter does not change how the requirement will implemented in Ag Order 3.0. The change in language provides clarity of how the requirement was implemented in Ag Order 2.0 and will continue in Ag Order 3.0.

Letter No.: 9
Page No.: page 1-2
Topic: Groundwater Monitoring

Comment: Klassen 1
The Draft MRPs include the following newly proposed language:

“Groundwater monitoring may be conducted through a cooperative monitoring and reporting program on behalf of its growers, or Dischargers may choose to conduct groundwater monitoring and reporting individually. Qualifying cooperative groundwater monitoring and reporting programs must implement the groundwater monitoring and reporting requirements described in this Order, unless otherwise approved by the Executive Officer. An interested person may seek review by the Central Coast Water Board of the Executive Officer's approval or denial of a cooperative groundwater monitoring and reporting program .”

As a cooperative groundwater monitoring program, the CCGC appreciates and supports this language. However, the CCGC seeks clarification regarding the Central Coast Regional Water Quality Control Board's (Central Coast Water Board) intent and purpose with respect to this language, and how it is intended to interact with Provisions 10 and 11 of the Draft Order.

Provision 10 allows dischargers to comply with provisions in the order by participating in third party groups, including for meeting required monitoring and reporting programs. Alternative monitoring and reporting programs are subject to the terms and conditions of Provision 11, unless the third party program is allowed elsewhere in the Order.

The CCGC understands that the newly proposed groundwater monitoring language in Part 2 of the Draft MRPs is intended to allow modified groundwater monitoring and reporting programs as compared to what is specifically required in the Draft MRPs. Further, these modified programs would be not subject to Provisions 10 and 11 of the Draft Order. The CCGC further understands that such modifications are at the Executive Officers discretion, subject to potential review by the Central Coast Water Board of the Executive Officers action if challenged by an interested person. To ensure that this interpretation of the newly proposed language is correct…CCGC recommends that the newly proposed language in Part 2 of the MRPs by slightly modified as follows: "...Qualifying cooperative groundwater monitoring and reporting

programs must implement the groundwater monitoring and reporting requirements described in this Order, unless otherwise approved by the Executive Officer. Cooperative groundwater monitoring and reporting programs approved by the Executive Officer under this provision are not subject to Provisions 10 and 11 of Order R3-2017-0002..."

Response:
Third-party groups may coordinate implementation efforts to improve water quality *and* propose monitoring strategies alternative to those required in the monitoring and reporting programs, in an effort to assess those implementation efforts. In these cases there are two goals: coordination of implementation efforts as well as alternative monitoring to assess those implementation efforts. Proposed Ag Order 3.0 findings 10 and 11 of proposed Ag Order 3.0 address these efforts. In other cases, however, a third party may simply conduct monitoring on behalf of its members and not be coordinating implementation efforts; in these cases findings 10 and 11 are not applicable. Finding 11 also states that a technical advisory committee will form to evaluate such third party monitoring and reporting programs; however, the Executive Officer may waive the requirement for the TAC.

Staff will not create a new finding that Findings 10 and 11 are not applicable to third party monitoring and reporting programs, and such programs to not necessarily require evaluation from a TAC, because the finding states this is the case.

Letter No.: 17
Page No.: page 1-2
Topic: Groundwater Monitoring

Comment Zelinski 1:
It is clear that the board is interested in conducting another round of groundwater monitoring. The current regulations call for the analysis of many constituents that may be interesting, but are not especially relevant to groundwater quality on the Central Coast. Additionally, there is at least one element -- namely Boron -- that is especially problematic for agriculture throughout the Central Coast, and this element is not required in the analysis.

Response:
Comment noted. Staff encourages growers to include boron in the analysis for their agronomic goals, if they wish. Staff will consider constituents that help inform agronomic concerns in the next, more-permanent agricultural order.

Letter No.: 17
Page No.: page 2
Topic: Groundwater Monitoring

Comment Zelinski 2:
For the Board's purposes, I suggest that analysis be limited to constituents that impact water quality for both human and agricultural concerns. These would be: nitrate, boron, chloride and sodium. Additionally, I suggest that Calcium and Magnesium be analyzed as this allows for the calculation of an important water quality criteria, which is the Sodium Absorption Ratio (SAR). The adoption of this modification would decrease the cost of the analysis and enhance the value of the results.

Response:
Refer to response to comment Zelinski 1.

Letter No.: 17
Page No.: page 2
Topic: Groundwater Monitoring

Comment Zelinski 3:
Additionally, the requirement that samples be collected by an "independent" third party and be submitted in a form that is electronically up-loadable to "Geo-Tracker" is unnecessary. Both of these items can be accomplished by individual growers, and with the appropriate forms developed by the regional board, would be just as accurate and less expensive if these requirements are removed from Ag Order 3.0. Therefore, I suggest that Board's staff develop detailed sampling protocol, sample bottle pre-treatment with preservative, length of time that a well should be pumping prior to sample collection, and hold time requirements, et cetera to serve as a guide for sampling. These modifications to the Order would save tens of thousands of dollars with no decrease in reliability of samples.

Response:
Comment noted. Groundwater data required by Ag Order 3.0 must be uploaded by a laboratory to the GeoTracker database. GeoTracker contains data utilized by the public and agencies, including for scientific and public health efforts. It is important that data in GeoTracker be collected and uploaded in a way that gives the public confidence in its accuracy.

Staff will consider the approach suggested by the commenter while developing the next agricultural order, which staff anticipates will be a more permanent order and approach that could reflect consistency across the state.

Letter No.: 17
Page No.: page 2
Topic: Groundwater Monitoring

Comment: Zelinski 4
Well water sampling does raise an important question that should be answered before the next round of sampling. Other than nitrate in domestic wells, what did the Board do with all the other information? If the answer is nothing or very little, why was it required?

Response:
Refer to response to comment Zelinski 1. Water Code section 13269 requires that waivers of waste discharge requirements include monitoring to verify the adequacy and effectiveness of waiver conditions. Groundwater is a receiving water of agricultural discharges and Ag Order 3.0 includes requirements aimed at addressing loading to groundwater; consequently, there must be monitoring provisions in place to assess performance. MRP Table 3 includes groundwater parameters that enable Water Board staff to do the following:

1) Determine if receiving water meets safe drinking water standards (e.g., nitrate MCL);
2) Evaluate groundwater quality conditions (including major ion geochemistry) and confirm aquifer source water and depth bearing zone (e.g., tri-linear Piper diagrams) – this is especially informative when well depth and screen interval are unknown;
3) Confirm sample quality assurance (e.g., cation-anion ratio must be in equilibrium).

Water Board staff evaluated all groundwater data against safe drinking water standards to ensure public health and evaluate protection of municipal and domestic beneficial uses. Additionally, Water Board staff evaluated major ion analyses and piper diagrams prepared by CCGC and presented in the Northern and Southern Groundwater Characterization Reports. The major ion data indicated that water chemistry varies by horizontal position within the Salinas Valley Groundwater Basin and well depth; Deeper wells in the Eastside and Pressure subbasins collect water that is more geochemically evolved and shallower wells in the Forebay and Upper Valley subbasins may be associated with less geochemically evolved water. In addition, the major cation/anion ratios confirmed that groundwater samples were generally in equilibrium, thus confirming data quality.

Letter No.: 11
Page No.: page 2
Topic: Groundwater Monitoring

Comment: Taylor-Silva 5
As revised by the Executive Officer in August 2016, the Draft MRPs require groundwater monitoring of "at least one groundwater well for each farm/ranch on their operation, including groundwater wells that are located within the property boundary of the enrolled county assessor parcel numbers (APNs)." This language is problematic in that it places requirements on growers for which they are unable to comply, and have no control. Many growers in the Central Coast lease properties from various landowners. Some of these properties may have a home or residence that is not within control of the grower. In fact, many leases prohibit the grower from bothering those that reside within the home/residence. However, the MRPs now require the grower to sample all wells used for domestic purposes if the well is located within the property boundary. This language places growers in a position of being unable to comply with the terms of the MRPs. The language needs to be revised to limit this requirement to domestic wells that are in control of the grower and not just because it is located within the APN.

Response:
Refer to responses to comments Sutton 6 and Groot 9.

Letter No.: 8
Page No.: page 7
Topic: Groundwater Monitoring

Comment Shimek 4:
While the Order requires testing of wells supplying domestic uses and the primary irrigation well, there is no testing, beyond the thin and infrequent GAMA program, designed to reflect the health of specific aquifers, so the RWQCB has no way of knowing if ambient groundwater conditions are declining or improving. The GAMA program has detected pesticides (dieldrin) and other organic compounds with human health benchmarks in Salinas Valley groundwater, yet the Ag Order does not require testing for these chemicals. The pesticide imidacloprid is extensively used in Central Coast agriculture and is listed on the Department of Pesticide Regulation Groundwater Protection List, yet no testing of groundwater samples for imidacloprid is required.

Response: The California Department of Pesticide Regulation (DPR) issued its 2016 annual report titled “Sampling For Pesticide Residues in California Well Water” in August 2016. DPR tested for imidaclorprid in 64 wells in three counties and found five detections. Although

Monterey, San Luis Obispo, Santa Barbara, and San Benito counties had wells included in the study, imidaclorprid was not analyzed in any of these counties. Of the three counties where imidaclorprid was tested for, only Fresno had wells with detectable concentration of imidacloprid. In Monterey, San Luis Obispo, Santa Barbara, and San Benito counties, only one pesticide degradate was detected (dacthal acid degradates), although more than 50 pesticides or degradates were tested for. At this time, staff concludes that it is not necessary to include pesticide monitoring in the groundwater monitoring requirements. Staff will continue to monitor DPRs groundwater monitoring efforts for pesticides in groundwater.

Letter No.: 8
Page No.: page 11
Topic: Groundwater Monitoring insufficient for BMP effectiveness

Comment: Shimek 5
Regarding groundwater monitoring, the Draft Order is insufficient for verifying the effectiveness of implemented management practices. That is, while individual groundwater monitoring may disclose the condition of the water – whether the pollution is increasing or decreasing – it does not provide information about why a particular result is occurring or whether any implemented practices will contribute to improvement in water quality.

Response:
See response to comments Reck 6 and 7. Water Code section13269 requires that waivers of waste discharge requirements require performance monitoring. Ag Order 3.0 requires that the primary irrigation well and all domestic wells located on ranches be sampled. Staff estimates that Ag Order 3.0 will result in nearly 4000 wells being sampled. The California Nitrogen Assessment Report states that it could take decades for nitrogen currently in the soil profile to make its way to groundwater aquifers. Therefore, although not perfect, the groundwater monitoring requirement, along with nitrogen tracking and reporting requirements in Ag Order 3.0 (total nitrogen applied, INMP Effectiveness Report), constitute an approach to assessing long-term progress towards achieving water quality goals. Staff will continue to develop better, more sensitive methods of assessing groundwater quality improvement, or the lack thereof, as we move forward with developing future more permanent agricultural orders. Regarding the challenges involved in measuring practice effectiveness, see the Expert Panel Report.

Letter No.: 7
Page No.: page 4
Topic: Expansion of domestic groundwater monitoring program.

Comment: Wineman 7

While we agree with the importance of protecting public health, we do not agree with memorializing the expansion of the Irrigated Lands Regulatory Program requirements from “all wells that are used or may be used for drinking water purposes” to “groundwater wells that are located within the property boundary of the enrolled county assessor parcel numbers (APNs)…. For the purposes of this MRP, a well that is used or may be used for domestic use purposes is defined as any groundwater well that is connected to a residence, workshop, or place of business that may be used for human consumption, cooking, or sanitary purposes.”

The latter definition prohibits any site-specific considerations that clearly differentiate a well used for drinking water purposes from any and all spigots that happen to be on the same APN as the enrolled ranch. The cost and public availability of this information goes far beyond protecting the health of potential users and fails to recognize safeguards that are already in place, such as onsite treatment, signage, and/or provision of alternate drinking water supplies. We maintain that a sampling requirement that is congruent with the boundaries of the irrigated farm/ranch acreage is most appropriate for an Irrigated Lands Regulatory Program. **We ask that the Order maintain the 2012 definitions of a drinking water well for groundwater monitoring.**

Response:
Refer to responses to comments Sutton 6 and 7, Fisher 4, and Groot 9.

Letter No.: 1
Page No.: page 1
Topic: Economics

Comment: Sutton 2
Farm Bureau is very concerned with the increased costs to Central Coast Water Quality Preservation, Inc. (Preservation, Inc.) – a 69% increase with the new and revised monitoring and reporting requirements.

Response:
Refer to responses to comments Groot 2 and 15 and Sutton 9.

Letter No.: 1
Page No.: page 2-3
Topic: Economics

Comment: Sutton 3
As reported at the December 8, 2016 hearing, the requirements under the INMP are exceedingly expensive… As stated on December 8, this becomes an extremely costly process costing tens of thousands of dollars throughout the term of the Version 3.0 order.

Response:
Staff anticipates that there will be few, perhaps no, new tier 3 ranches required to develop irrigation and nutrient management plans (INMP) during implementation of Ag order 3.0. This is so because no new tier 3 ranches have enrolled in the order in over two years. Therefore, the ranches required to develop an INMP have already done so during Ag Order 2.0. The INMP requirement is to continue to implement the INMP and modify it if needed. Only the effectiveness report is forwarded to the Water Board. Draft Ag Order 3.0 required INMP effectiveness reports be submitted annually; however, staff has modified the proposed Ag Order 3.0 reporting frequency to once during the term of Ag Order 3.0. This modification results from public comment during the December 2016 board meeting as well as written comments received.

Letter No.: 3
Page No.: page 1
Topic: Economics

Comment: McLaughlin 1
To create new restrictions on Central Coast agriculture, such as those proposed in Ag Order 3.0, will place the most ecologically compliant farmers in the country at an economic disadvantage while competing in national and global markets. To further restrict the use of pyrethroid and neonicotinoid insecticides by Central Coast growers will further hinder integrated pest management practices, create a reliance on older chemistries and limit the ability to respond to new pest and disease pressures. Please consider existing regulations and regulatory agencies related to the Monterey Bay Marine Sanctuary that provide environmental oversight to the Central Coast agricultural region before adding regulatory requirements with the new Ag Order 3.0.

Response:
Proposed Ag Order 3.0 does not restrict the use of pyrethroid and neonicotinoids insecticides, but does require monitoring of pyrethroid and neonicotinoid concentrations in sediment of surface receiving waters.

Regarding regulatory efforts by other agencies, please see finding 11 of proposed Ag Order 3.0, which growers could potentially use to propose alternative regulatory requirements.

Letter No.: 12
Page No.: page 3 and 5
Topic: INMP – tier 3 costs

Comment: Mercer 22
Compliance costs vary substantially among Tier 3 operations because the Tier 3 requirements are triggered by diverse on-farm characteristics. What follows, is an attempt to estimate some of costs that Tier 3 growers may be incurring. It should be noted that circumstances, as envisioned by the State Water Resources Control Board (SWRCB) during the Ag Waiver 2012 petition hearings, have substantially changed as a result of seemingly absolute public access to reported compliance information. This, coupled with a strong expectation of lawsuits using grower reported information, compels Tier 3 growers to use the best scientists and lawyers they can retain to prepare Tier 3 reports.
….
It is safe to say that average Tier 3 base costs for Individual Surface Water Sampling and INMP programs/reports easily could be between $50,000-60,000.00/year/farmer ranch. Costs will increase depending on the level of required implementation. If a Tier 3 grower has 500-1000 acres then his per acre costs will range from $50-$120.00/acre.

Response:
See also response to comment Sutton 3. Staff is aware of high costs and has provided, and will continue to provide, support and assistance to growers as much as possible, in an attempt to reduce the costs associated with the various requirements. For example, staff created a QAPP/SAP template for Tier 3 individual monitoring program as a user-friendly document that could be easily completed by the grower.

In Ag Order 3.0, staff has proposed reducing the reporting frequency of the Irrigation and Nutrient Management Plan Effectiveness report and Water Quality Buffer Plan report from

annually to once in the life of Ag Order 3.0 to help defray the costs associated with tier 3 ranch requirements.

Growers should compare several consultants' expertise and fees as well as laboratory services and chose accordingly. Staff has received data reports that include extra information that is not necessary, resulting in lengthy and perhaps more-costly reports.

Regarding public access (via the Public Records Act) to the reported compliance information, staff must continue to provide data subject to the Public Records Act, while protecting the proprietary nature of the information, where applicable. Growers can continue to provide justifications of trade secret claims as they submit what they assert is proprietary information.

Letter No.: 12
Page No.: page 5
Topic: tier 3 reporting frequency

Comment: Mercer 23
The proposed Ag Waiver 3.0 Annual reporting frequency for Tier 3 INMP Effectiveness Reports and the WQBPs will substantially increase a grower's average base costs. Additionally, from a perspective of the implementation, the proposed annual frequency does not allow time for the iterative process to occur. It takes time to plan, execute, collect data and adapt. Annual reporting will not capture this process. Please consider returning the reporting frequency to meet Ag Waiver 2.0 requirements of once every four years, or at the very least, reduce the reporting frequency to a period of every 2-3 years to allow for the iterative process to occur between reports.

Response:
The INMP effectiveness report and WQBP report were only submitted to the Water Board one time during the span of Ag Order 2.0 to allow the growers required to meet these requirements time to create and begin implementing their plans. Based on input from the commenter and others, staff now proposes that the Effectiveness Report and WQBO reports be due only once in the term of Ag Order 3.0.

Letter No.: 12
Page No.: page 5
Topic: tier 3 discharge based on size

Comment: Mercer 24
One final note about Tier 3 farms/ranches is that using size as a criterion seems to be based on a built-in assumptive error that larger farms/ranches will have more discharges proportionate to their larger size. Instead, what is known is that individual farms/ranches have site-specific conditions that dictate whether discharges occur, that determine what kind and the volume of potential discharges, and predicate the type of practices or mitigations that will work. Therefore, it is logical that since farm/ranch size may not be that useful in predicting impacts to water quality, and since there may be an unreasonable nexus between water quality benefits to the costs of Tier 3 compliance; there is justification for re-evaluating all Tier 3 farms/ranches to determine if changed circumstances or a better understanding of ranch-specific characteristics might result in re-designation of Tier 3 Farms/Ranches to a Tier 2. Please consider doing a complete re-evaluation of Tier 3 Ranch designations.

Response:
Staff intends to examine tiering and tiering criteria during the development of Ag Order 4.0. Staff will engage in a public process to solicit feedback to improve the current tier structure and other aspects of the order, after the adoption of Ag Order 3.0.

Proposed Ag Order 3.0 allows growers to submit a tier review request. Many ranches received updated tier assignments during Ag Order 2.0. Please see condition 18 regarding tier transfers.

Letter No.: 12
Page No.: page 5
Topic: different tier costs

Comment: Mercer 25
Growers of Central Coast crops are highly competitive. They compete with their neighbors and calculate their costs on a per acre basis. Tier 3 designations are largely predicated on farm/ranch size, thus, if a Tier 3 grower's competitor has a Tier 1 or Tier 2 ranch or is not enrolled in the Ag Waiver, then, there is a competitive advantage for the neighbor, even though that neighbor's threat to water quality may not be substantially different than a Tier 3 ranch.

Response:
Please see response to comment Mercer 22. Staff actively pursues non-filers to increase enrollment, lower costs, and create a just regulatory burden for all growers. Staff encourages those with information about non-enrolled agricultural operations to provide it to staff, anonymously if desired, by submitting an email to AgNOI or by sending it via fax to (805) 543-0397.

If staff becomes aware of an operation's activities that might warrant closer scrutiny to address a water quality issue, we will take action. In addition, we understand the difficulty with turning in your neighbor.

Letter No.: 12
Page No.: page 3
Topic: Individual surface discharge monitoring cost

Comment: Mercer 26
Individual Surface Water Monitoring. In discussions with laboratory personnel, costs estimates for preparation of the Sampling and Analysis Plan and Quality Assurance Project Plan [QAPP/SAP], as well as sampling, analysis, toxicity testing and reporting range from ~$10,00.00 to ~$30,00.00 per year. Average costs are ~$21,000.00 per year. Variability depends on how much work is needed to write and/or update the sampling and Analysis Plan (SAP). If a grower makes positive changes to his farm/ranch that improves water containment or reduces discharge outfalls, he must update his plans. Thus a grower who has made improvements is financially penalized by having to update his SAP/QAPP. Another factor that drives higher costs is that most growers do not have in-house staff qualified to do SWAMP-compatible surface water monitoring; and therefore, they need to contract with third party sampling crews. Unfortunately, no local samplers are available and growers must hire sampling crews from outside of the area, which increases costs even more.

Additional costs are incurred when an annual Tier 3 Surface Water Monitoring Report has exceedances or toxicity that trigger an additional technical report. Most growers hire the laboratory or a consultant to write these reports. Average costs per annual report are about $4000.00.

Response:
Please see response to comments Sutton 3 and Mercer 22. Staff anticipates few, if any, new tier 3 ranches to by newly enrolled during Ag Order 3.0. Therefore, the cost for developing SAP/QAPPs (and other tier 3 ranch reporting, such as irrigation and nutrient management plans, water quality buffer plans) has largely been incurred.

Staff certainly encourages progress and will work with the successful grower towards reducing costs, including costs to revise previously established monitoring protocol. Depending on the extent of changes the QAPP/SAP, in many cases, changes can be conveyed to Water Board staff merely through an email and/or incorporation as an addendum to the original QAPP/SAP.

Regarding collecting samples, many labs can train irrigators, farm managers, and others to collect samples. Staff believes this is a prudent step, since these employees should know the irrigation patterns and when runoff is most likely to occur. Hiring consultants that are located out of town and seem to maintain a consistent monthly schedule to collect samples might not be present during an irrigation event when runoff is most likely to occur.

The technical report is a mechanism for the grower to report on the iterative process once a water quality issued is identified. The elements of the technical report are basic: describe management practices implementation and planned practices to address the known water quality issue, include a time schedule for implementation, and include a description of how effectiveness will be assessed. This strategy is consistent with the key elements of the Nonpoint Source Policy and the iterative process concept of Ag Order 3.0.

Letter No.: 12
Page No.: page 4
Topic: INMP cost

Comment: Mercer 27
Irrigation and Nutrient Management Plans and Effectiveness Reporting costs vary depending on the when the INMP was written and who wrote the INMP: grower, vendor, outside consultant or an in-house Staff person. For example, for one client, who hired an outside consultant to write both his INMP and Effectiveness report, the total consulting costs since mid-2014 is about $64,000.00, which is about $2200/month or $26,000/year. This is likely an underestimate because, initially, Tier 3 compliance tasks were not tracked in detail. Another grower utilized his fertilizer vendor to write an INMP. However, when it was time to write the Effectiveness report, the vendor declined. Subsequently, the client retained an outside consultant and his costs should average about $2500-3000.00/month into the future.

Response:
Please see response to comment Mercer 22, Mercer 26.

Letter No.: 12
Page No.: page 4-5

Topic: Buffer plans cost

Comment: Mercer 28
Water Quality Buffer Plans (WQPBs) To date, these costs are difficult to assess. The magnitude will be highly dependent on how many linear feet/miles of property are adjacent to or contain a waterbody impaired for turbidity, temperature or sediment. Some growers completed the requisite WQBP forms without fully understanding the implications of what they were committing to do in the future. Other growers elected to hire a consultant and submit alternative Water Quality Buffer Plans and, currently, are awaiting review and approval by Water Board Staff. Implementation costs remain an unknown.

One important point to make about the WQBP requirement is that it occurs in a patchwork fashion, and consequently, Tier 3 ranches may or may not be located at sites 5 that will positively or negatively influence water quality or protect beneficial uses.

Response:
See response to comments Mercer 22, 26. Staff created a Water Quality Buffer Plan form to be user friendly so growers could complete it themselves without hiring a consultant.

Staff acknowledges the patchwork fashion of the requirement; the goal of the requirement could be better achieved by increasing the number of ranches required to develop and implement a Water Quality Buffer Plan. Staff looks forward to working with growers, consultants, and other interested parties on this issue during development of Ag Order 4.0.

Letter No.: 16
Page No.: 2
Topic: 2.0 and 3.0 differences

Comment: Livengood 1
Substantial Substantive Changes from 2.0. Agenda Item 6 of the Board's July 2016 meeting stated, "The proposed 2017 ag order (version 3.0) will be largely unchanged from the current order in most aspects, but will have new compliance dates." However, the proposal issued includes significant and extensive changes— as do amendment made to the MRPs. Previously, the Board indicated that significant changes would be postponed until pending legal issues could be resolved; at which point, the board would draft a new order, 4.0, consistent with the legal decisions and inclusive of other necessary changes.

Letter No.: 6
Page No.: 2
Topic: 2.0 and 3.0 differences

Comment: Fisher 2
As originally described, Ag Order 3.0 was to be "largely unchanged from [Ag Order] 2.0" apart from "necessary date changes." Specifically, due to pending court cases and regulatory proceedings that will not be finalized prior to the expiration of the current conditional waiver (Ag Order 2.0), Ag Order 3.0 was to be adopted as a placeholder three-year conditional waiver with only minimal "housekeeping" changes made to the requirements of Ag Order 2.0. (See Central Coast Regional Board Ag Order Renewal Discussion Powerpoint, August 2016, slides 5, 7, 13.) In reality, Ag Order 3.0 contains fundamental and substantive changes beyond those that simply

update reporting deadlines. Significant substantive changes include, but are not limited to, changes in monitoring requirements, additional reporting requirements, expansion of total nitrogen applied reporting, and procedural and process changes. These substantive changes increase compliance costs and burdens, further complicating the regulatory compliance process for many farm operators, and hinder the best pathway forward to achieving water quality objectives.

Letter No.: 4
Page No.: 1
Topic: 2.0 and 3.0 differences

Comment: Groot 3
As we originally understood the intent of adopting the new Conditional Waiver (Ag Waiver 3.0), there were to be minimal changes to the requirements as there are a number of pending circumstances that could substantially change the Conditional Waiver paradigm contemplated for 2020 and beyond. Items such as the compliance date reporting and other 'housekeeping' items were what we were led to believe would be the substantial efforts for this Ag Waiver 3.0 adoption.

Letter No.: 11
Page No.: page 1
Topic: 2.0 and 3.0 differences

Comment: Taylor-Silva 1
As a preliminary matter, Grower-Shipper is concerned that the proposed revisions to the Draft Order, Draft Attachment A, and Draft MRPs collectively go well beyond what was originally conveyed by the…Central Coast Water Board staff as to the intent and purpose of the revisions being proposed for March of 2017. Based on prior verbal communications, Grower-Shipper and others were led to believe that Central Coast Water Board was merely going to re-adopt the existing Order … for a three-year period while discussions ensued on a longer-term agricultural program. Further, re-adoption of the existing Ag Order should maintain the status quo while other related and associated processes play out to completion.

Letter No.: 7
Page No.: 1
Topic: 3.0 changes

Comment: Wineman 1
We initially agreed with the approach outlined by Staff to have an interim Order with minor modifications pending the outcome of precedential actions at the State level. We still agree with this approach and are disappointed to see many substantive changes in the draft 2017 Order.

Response:
As the commenters state, staff's initial intent was to propose an order with minimal changes, with the exception of updating compliance dates as conveyed in the July 2016 Board meeting. At that meeting, staff also communicated their intention to conduct outreach to stakeholders in an effort to listen to suggested changes for Ag Order 3.0. A number of those suggestions are included in the proposed Ag Order. At the request of the Board and as part of program implementation, staff evaluated information and data from the implementation of 2.0, provided this with recommendations to the Board, and followed their direction, which also led to some of

the changes included in proposed Ag Order 3.0. The notable changes in proposed Ag Order 3.0 relative to Ag Order 2.0 include updated compliance dates, a three-year term (Ag Order 2.0 was five years), expanded total nitrogen applied reporting, reductions in the annual compliance form, and removal of the photo monitoring requirement. Changes to the MRPs include an additional round of groundwater monitoring similar to what was required in Ag Order 2.0, the addition of toxicity monitoring using the midge *Chironomus* test organism, the removal of toxicity monitoring using the fathead minnow test organism, and two rounds of pesticide monitoring similar to what was performed from 2013-2014 but with the addition of nenicotinoids and the removal of carbamate pesticides, These changes were made largely due to stakeholder input conducted during the development of Ag Order 3.0. During the development of Ag Order 3.0, staff engaged in an outreach effort that included agricultural, environmental, environmental justice, scientific interested parties, as well as the Central Coast Water Board members. The originally unanticipated changes are in response to the input received during this outreach, as well as new information gathered, such as increased use of neonicotinoids and pyrethroids pesticides and toxicity indicated by their use.

Letter No.: 16
Page No.: 2
Topic: 3.0 duration

Comment: Livengood 2
Waivers of waste discharge requirements may have a duration of five years, yet Ag Order 3.0 is limited to three years. As allowed under law, we request that the order be issued for a full term of five years (expiration date to March 8, 2022) to minimize the potential for interruption of regulated discharges of waste from irrigated agricultural operations. (Draft Order, Item 85)

Response:
See response to comment for Livengood 1. Staff estimates that many key pending litigation and statewide issues will be resolved before five years. The State Water Board is expected to issue a water quality order on the petition regarding the Eastern San Joaquin agricultural order. This will provide critical guidance in developing the next order. The board will have a responsibility to consider, where and when applicable, this order and the decision in *Monterey Coastkeeper v. State Water Board*, regarding State Board Order WQ 2013-0101. Based on the status of these cases, staff believes the Court of Appeal and the State Water Board will issue decisions in time for the next Ag Order (Ag Order 4.0) to be considered by 2020, hence the three-year term of Ag Order 3.0.

Letter No.: 16
Page No.: 2
Topic: 2.0 and 3.0 differences

Comment: Livengood 3
Supporting Justifications.
Changes to the order are being made despite the apparent failure of Board staff to update its justifications and scientific research underlay to reflect state-of-the-art findings, research outcomes and technology discoveries. The proposed order and supporting justification documents contain and are based on out-of-date and incomplete or contradictory scientific information. Citations classifying agricultural practices do not reflect current modern crop production methods and practices.

Response:

See also response to comment Livengood 4. Please see findings contained in Attachment A of Proposed Ag Order 3.0, 60-64, and 83-86. Proposed Ag Order 3.0 requires another round of groundwater sampling, tier 2 and tier 3 farms growing high risk crops to report total nitrogen applied, and the addition of neonicotinoid pesticide monitoring in surface receiving waters. New findings in Attachment A are included to support these requirements.

Staff always welcomes additional scientific studies and sources of information on the latest technological advances. Specific research may be sent to the AgNOI@waterboards.ca.gov email address.

Letter No.: 16
Page No.: 2
Topic: 2.0 and 3.0 differences

Comment: Livengood 4
Supporting Justifications.
For example, the California Strawberry Commission funded a two-year study to look at the presence of nitrates (a form of nitrogen) in the soil on strawberry farms in California. This research shows that, in most fields the quantity of nitrogen applied is nearly the same as the amount taken up and used by the crop. Researchers also found that …..Yet, strawberries are listed as a "Crop Type with High Potential to Discharge Nitrogen to Groundwater" based on assumptions made in a 20-year-old study which needs to be updated. This is but a single example of many that could be made of new provisions of the proposed order not aligning with current knowledge and science.

Response:
The crop risk rating system was developed by University of California, Division of Agriculture and Natural Resources (UCANR). As described by UCANR, a crop's risk rating is not based on only one characteristic of the crop, such as the ratio of the amount of nitrogen typically applied to the amount taken up by the crop; rather, the risk categorization is based on many factors, including rooting depth, ratio of the amount of nitrogen typically applied to the amount taken up by the crop, fraction of the crop maximum nitrogen that is removed from the field at harvest, magnitude of the peak nitrogen uptake rate, whether the crop is harvested at a time when the nitrogen uptake rate is high, and other factors. Strawberries have shallow roots and a significant portion of the crop biomass is left in the field after harvest, both of which are characteristics that informed the crop's high-risk ranking.

Also, based on data received as part of the total nitrogen applied requirement, some strawberry growers are applying significantly more nitrogen than the predicted uptake rate, indicating the potential for nitrogen loading.

Letter No.: 16
Page No.: 2
Topic: 2.0 and 3.0 differences

Comment: Livengood 5
Clarifications. The proposed order is vague and should be clarified. For example, the transfer of responsibility for submittal of a notice of intent (NOI) for operators that occupy for less than 12 months to the landowner is unnecessarily vague, is subject to confusion and may result in unintentional situations in which neither party performs its duties under the order (Draft Order,

Item 55). Further, the current draft continues the same vague and overly generalized language CSC previously identified as unworkable in version 2.0.

Response:
Proposed Order finding 24 defines both the landowner and the operator as "dischargers" subject to regulation under the Agricultural Order. In all cases, it is the responsibility of both the landowner and the operator to ensure that their land is properly enrolled in the Order at all times. In general, it is up to the landowner and the operator to decide which party will complete and maintain the enrollment. However, in cases where the operator will be on the land for a short amount of time (less than 12 months), Condition 55a requires that both the landowner and the operator must ensure that it is the landowner who completes and maintains the enrollment. Condition 55a was included in Ag Order 2.0 and carried forward into Ag Order 3.0 to help maintain a consistent enrollment of land where rapid rotations of operators may be occurring.

Letter No.: 8
Page No.: 2
Topic: 2.0 and 3.0 LACK OF differences

Comment: Shimek 1
In its essence, the Draft Ag Order does nothing to regulate the well-monitored and documented over-application of fertilizers….

Response:
See response to comments Groot 19 and Reck 7. Proposed Ag Order 3.0 expands the total nitrogen applied reporting requirement. This expansion recognizes that measuring the amount of nitrogen applied is the first step towards reducing an over-application. The data gathered through the total nitrogen applied reporting requirement, in conjunction with other reported information, also allows staff to better prioritize follow-up actions with individual growers to better manage fertilizer application. Staff expects there to be a learning curve regarding nitrogen applications, including learning how to track nitrogen applied, learning how to report total nitrogen applied, learning more about the amount of nitrogen that particular crops are able to uptake and how to better match an application to that amount, and finding creative ways of reducing the amount of nitrogen applied while maintaining quality production.

Letter No.: 8
Page No.: 2
Topic: 2.0 and 3.0 LACK OF differences

Comment: Shimek 2
In its essence, the Draft Ag Order …. it focuses on, but does nothing to regulate, only two pesticides (chlorpyriphos and diazinon), both of which were falling out of use even before the 2012 Ag Order was passed (Shimek 2015 Declaration Attachment 3).

Letter No.: 8
Page No.: 5
Topic: Pesticide switch

Comment: Shimek 47

Shortly after the release of the 2010 draft Ag Order there was discussion regarding the inclusion of a broad suite of pesticides known to cause toxicity, or alternatively a focus on just two pesticides. The Board arbitrarily decided to focus on two pesticides, chlorpyriphos and diazinon…Some Board members and stakeholders expressed a concern with the potential for pesticide switching: …Staff was well-aware of the changes in pesticide use:…Clearly, 25 months prior to the March 2017 expiration date of the Ag Order, staff understood the problem of pesticide switching.

Response:
The board did not arbitrarily focus on chlorpyrifos and diazinon; data at the time of development of Ag Order 2.0 showed toxicity driven from these two pesticides. Growers applying chlorpyrifos and/or diazinon are subject to greater regulation in the Proposed Order 3.0 (and in Ag Order 2.0) than those who do not apply these two chemicals. A ranch where either of these chemicals is applied will be placed into Tier 2 at a minimum, which triggers the reporting of the Annual Compliance Form. The ACF includes questions regarding pesticide management practices relating to all pesticides used on a ranch. Tier 3 ranches that have discharges are required to perform individual surface water discharge monitoring, which includes toxicity monitoring. Due to changing pesticide use patterns away from chlorpyrifos and diazinon and towards pyrethroids and neonicotinoids, the updated MRPs require regional toxicity and pesticide monitoring. This includes monitoring for specific pesticides and herbicides, including 13 organophosphates, 8 herbicides, 10 pyrethroids, and 6 neonicotinoids, the use of toxicity indicator organisms sensitive to organophosphates and pyrethroids, and the addition of an organism sensitive to neonicotinoids. These monitoring requirements can trigger other regulatory requirements. For example, if an individual discharge monitoring event results in toxicity to the indicator organism, the grower is required to report follow-up actions to address the toxicity.

Letter No.: 7
Page No.: 6
Topic: 3.0 changes

Comment Wineman 2:
We do not agree with deleting a set calendar date for eNOI updates (previously October 1). This will create confusion and make it more difficult to comply. **We believe that a set calendar date for the eNOI update, such as March 1, will be most conducive to compliance. This has enabled us to provide consistent outreach reminders to members, while a rolling date would not.**

Action: Maintain set calendar date of March 1 for eNOI updates

Response:
Staff proposes removing the set calendar date for updating the eNOI in response to grower requests. In some cases, growers informed staff that there were no annual changes to their eNOI to report, but due to the annual update requirement, they still had to login to GeoTracker to memorialize a lack of changes in their reporting. Furthermore, based on feedback from the cooperative monitoring program, setting a date for eNOI updates on March 1st could result in growers being charged permit and CMP fees not consistent with their enrollment status. Based on requests from growers and feedback from CMP, staff removed the set date for the eNOI update. Instead, proposed Ag Order 3.0 requires growers to login to GeoTracker and perform updates to their enrollment as needed, based on changes in their operation.

Letter No.: 7
Page No.: 6
Topic: 3.0 changes

Comment: Wineman 3
We do not believe that 30 days is adequate for entering mid-year changes, along with enrolling and terminating operations. The previous 60 day timeframe should be maintained.

Action: Retain 60 day timeframe for enrollment and termination requirements

Response:
The commenter refers to condition 55 of Ag Order 3.0. Staff has revised the requirement to now read 60 days, as the commenter requests.

Letter No.: 7
Page No.: 6
Topic: Tier 3 req

Comment: Wineman 4
We are concerned with the treatment of Tier 3 farms/ranches regarding the Irrigation and Nutrient Management Plan (INMP), INMP Effectiveness Report, and Water Quality Buffer Plan requirements. We are concerned that there is no opportunity for the applicability of these requirements to change, even if the underlying risk factors have changed during the 2012 and/or 2017 Orders. We do not find it ethical to bind operations to reporting requirements based on previous circumstances.

Disconnects requirement for Water Quality Buffer Plan and Irrigation and Nutrient Management Plan Effectiveness Report from risk in 2017 Order and instead cements 2012 determinations

Action: Tier 3 INMP and Water Quality Buffer Plan requirements should be based on current, not historical risk assessments

Response:
Note that of the more than 4000 ranches enrolled in Ag Order 2.0, less than 20 are required to develop an irrigation and nutrient management plan (INMP), although the Expert Panel recommends that all growers develop and implement one. Finally, the INMP requirement merely requires an “effectiveness report” of the INMP, and not the INMP itself, the contents of which are designed to be fulfilled by the grower him/herself.

The requirements for the Irrigation and Nutrient Management Plan (INMP), the INMP effectiveness report, and the water quality buffer plan apply to Tier 3 ranches only. Tier 3 ranches are identified as having the highest relative risk to water quality; assigned requirements are commensurate with a ranch’s relative risk to water quality. The Proposed Ag Order 3.0, like 2.0, allows growers to request a tier change based on tiering criteria.

Note that the INMP requirement, like Ag Order 2.0, requires that the grower report the effectiveness of the INMP and not submit the INMP itself. The requirement is structured so the grower himself/herself is able to report on the effectiveness of the INMP. The requirement is consistent with the Expert Panel recommendation that INMPs should be developed and

implemented by each grower (page 34, Nitrogen Management Plans). Ag Order 3.0 requires that Tier 3 growers who developed and are implementing an INMP continue to update, implement, and report effectiveness of their INMP; this is consistent with the Expert Panel recommendation and warranted due to the risk to water quality that tier 3 ranches pose and the nitrogen pollution observed through monitoring efforts in surface waters and groundwaters.

Letter No.: 7
Page No.: 6-7
Topic: Tier 3 req

Comment: Wineman 5:
Furthermore, there is **too much ambiguity** in the INMP Effectiveness Report and Water Quality Buffer Plan. In implementing the 2012 Order, many liberties have been taken and the requirements specified at the discretion of the Executive Officer do not appear to be consistent with the intent of the information. There are currently significant implementation challenges to the Tier 3 Water Quality Buffer Plan and Irrigation and Nutrient Management Plan Effectiveness Report. We ask that these issues be resolved and that Tier 3 operations not be permanently bound to requirements based on circumstances during the 2012 Order.

Tier 3 reporting needs significant refinement *before* expansion

Comment: Taylor-Silva 8
Similarly, Part 6.B.1 states that INMP reporting will be done "in a format specified by the Executive Officer." To avoid confusion, and questions regarding improper use of the Executive Officer's discretion, the format for reporting needs to be included as part of the Draft Order so that interested persons have the ability to review and comment on the format. At the very least, the format specified should be made available for public review and comment prior to being ordered by the Executive Officer. To that end, Grower-Shipper recommends that the language be revised to state as follows: " ... in a format specified by the Executive Officer, after the format has been made available for public review and comment."

Response:
The language “at the discretion of the Executive Officer” appears in Ag Order 3.0 at condition 11, which describes how third-party groups might assist growers; this language does not appear with conditions pertaining to irrigation and nutrient management plans (INMP) or water quality buffer plans. Condition 74 describes the INMP Effectiveness Report and states that the report must be submitted “in a format specified by the Executive Officer.” This language is used to give the grower flexibility to tailor his/her INMP, and therefore effectiveness report, to their individual situation. Growers are welcome to develop a draft reporting format and check with staff on consistency with the requirement prior to submitting a final effectiveness report. Additionally, staff has provided a guidance document outlining what the content of each individual INMP Effectiveness Report should contain.

Similar language is used in Condition 77 for Water Quality Buffer Plan (WQBP) reporting. Water Quality Buffer Plan reporting forms were developed during implementation of Ag Order 2.0 and distributed to growers for their use. The forms streamline the requirement reporting because the grower can simply update information using the same form. Alternatively, the grower can submit an “Alternative to WQBP Status Report” (Condition 77), again, allowing flexibility.

As noted in response to comment Wineman 5, Tier 3 INMP and WQBP reporting requirements are not expanding; these requirements apply to tier 3 ranches only, as was the case in Ag Order 2.0. There have been very few new tier 3 ranch enrollments in the past two years, so staff does not anticipate an expansion of these requirements.

Letter No.: 7
Page No.: 7
Topic: Cooperative approach

Comment: Wineman 6
We strongly believe that industry-led engagement and cooperation is the best way to meaningfully improve water quality in the long term. In addition to our comments regarding the important role of coalitions in Total Nitrogen Applied in this letter, we are concerned with the draft 2017 Order's treatment of cooperative groundwater and surface water monitoring. Based on the changes to the MRPs, we are concerned that the increase in cost and requirements will make it difficult for cooperatives to create enough of an incentive for operations to choose cooperative participation over individual compliance. Concerns with the increase in cost and fragmentation of the agricultural community are amplified if a vines and wines WDR is pursued. Based on conversations with Staff, we are concerned with the likelihood of Staff recommending and the Executive Officer approving a cooperative groundwater monitoring program that is different enough from the individual requirements to create an incentive to join. We ask that the Board carefully consider the implications that its decisions may have on the ability of cooperatives and coalitions to effectively provide leadership in implementing the Order and improving water quality.

Action: Carefully consider the implications of decisions on the viability of cooperatives

Response:
See response to comment Groot 2. Comment noted. Staff continues to work with agricultural cooperatives that could assist growers with regulatory compliance. Staff recognizes the potential value offered by coalitions in the areas of technical assistance and practice design and implementation. As the commenter recommends, staff is carefully reviewing these proposals with consideration not only of implementing current, but also future agricultural orders.

Letter No.: 12
Page No.: 1-2
Topic: Ag Waiver- 3 years

Comment: Mercer 5
In September of 2016, the Water Board began introducing substantial changes into Ag Waiver 3.0, while retaining the majority of the permit conditions and findings from the 2012 Ag Order 2.0. Many of the 2.0 Findings and conditions are out-of-date, or carry obvious biases that resided in the 2012 Ag Order, or contain assumptive or factual errors. This new proposed Order is a hybrid, which retains some of the most concerning parts of the Ag Waiver 2.0, while proposing new and, somewhat, undeveloped conditions and findings. And as Findings and Conditions should form the basis of a permit, this presents a conundrum about the renewed Order. Consequently, the Water Board may have reached a crossroads where they need to either re-adopt Ag Waiver 2.0 without substantial change or incorporate substantial changes into Ag Waiver 3.0, as proposed, and move towards adopting a new Waiver with updated Findings and Conditions. The latter would not be a renewal of Ag Waiver 2.0, but a completely

new Waiver, which is unlikely to happen by the March 2017 adoption deadline as imposed by SWRCB legal counsel.

Perhaps a compromise might be for the Water Board to renew the current Ag Waiver 2.0 with minimal change, but insert milestones and a deadline to review and update Findings and Conditions to correct prejudicial, out-of-date, or assumptive and/or factual errors?

Response:
See response to comment Livengood 1 and response to comment Livengood 3. Ag Order 3.0 has a term of three years, which is a shorter duration than the normal five years of a waiver of waste discharge requirements. Staff is planning on immediately working on development of the next agricultural order (Ag Order 4.0) following approval of Ag Order 3.0. Ag Order 4.0 will encompass issues resolved in pending legal and regulatory cases and include updated findings. Therefore, as the commenter suggests, there is a deadline of three years to develop and incorporate updated findings and other conditions.

Letter No.: 12
Page No.: page 11-12
Topic: Ag Waiver 2.0, SWRCB Petition Order 2013-0101

Comment: Mercer 6
There is uncertainty about the continued legal guidance provided by SWRCB WQ 2013-0101 in Ag Waiver 3.0. Staff has indicated that the SWRCB Order will be superseded by the Central Coast Ag Waiver 3.0. However, this might be improper; and therefore, Ag is requesting clarification on this point.

There are several clarifications in the SWRCB Order that provide guidance for Tier 3 compliance. If Ag Waiver 3.0 somehow voids or nullifies SWRCB Order 2013-0101, then, it is respectively requested that these clarifications be inserted in Ag Waiver 3.0.
They are as listed

- Sampling of Comingled Waters
- Management of Containment Basins
- Qualitative analysis (versus quantitative analysis) of reductions of loading to surface and ground water (confusion in the petition Order itself)
- And for all growers, the following clarifications are useful and need to be clearly reflected in Ag Waiver 3.0.
- Compliance via the iterative process and consideration of multiple factors versus strict adherence to water quality standards/objectives/water quality requirements (as per NPS Policy).

Response:
Please see response to comment Wineman 12. As the commenter suggests, State Water Resources Control Board Order No. WQ 2013-0101 modified language in Ag Order 2.0 and associated monitoring and reporting programs. The language regarding commingled waters (MRPs for tier 3 ranches), management of containment basins (Condition 33), and the iterative

process have been retained in Ag Order 3.0, and therefore have not been nullified or voided as the commenter questions. The clarifications provided in WQ 2013-0101 are still included in Ag Order 3.0. Finally, regarding the Nonpoint Source Policy; staff disagrees (see response to comment Reck 6).

Letter No.: 12
Page No.: page 12
Topic: Concerns that carry over from 2.0

Comment: Mercer 7
There are a number of concerns that carry over from Ag Waiver 2.0.

- Many Findings in the Ag Waiver Order 2.0 and Attachment A. demonstrate a high-degree of prejudice, and hostility towards the Agricultural Community.
- Many Findings in the Ag Waiver Order 2.0 and Attachment A. demonstrate assumptive or factual errors.
- Vacillation on what are regulatory priorities from Waiver to Waiver creates a sense that growers are constantly chasing a brass ring.
- The Agricultural community repeatedly has expressed concerns about inadequate capacity of the technical service providing community during the development of Ag Waiver 2.0. Capacity has diminished since that time; yet, it appears that technical demands will continue to increase.
- There are inadequate sampling services available on the Central Coast for any type of sampling that does not occur on a routine basis such stormwater or irrigation water at peak maximum flow.
- There is uneven enforcement of administrative compliance between small growers and large growers.
    - Public availability of information is causing the following concerns:
    - There are mixed signals about trade secret/proprietary information protection.
    - There are poorly defined transparency and accountability requirements.
    - Aggregated reporting is sufficient for permit effectiveness and enforcement purposes.
    - Staff is unsure about how reported compliance data will be used when it is requested.
    - Since no grower is sure what reported data are divulged to the public, it has increased costs of reporting.
    - Concerns about proper public dialog and proper notice:
    - One incident of Tier 3 MRP changes without notice
    - Adding or removing documents to ILRP Web-site without notice
    - Inadequate time to respond to changes to reporting requirements
    - Inadequate pubic involvement. Three examples:
        - The 2017 MRPs were first published as being adopted without previous public input.
        - The 2014 Integrated Report took 6 years to analyze without stakeholder involvement except for a 30 day comment period of the final report
        - The letter announcing the SIP WDR was published and written in such as way that it appeared the WDR was fait accompli.

Response:
Proposed Ag Order 3.0 and Attachment A contain more than 100 findings; therefore, more specific references are needed to address the commenter's concerns regarding the findings. It

should be noted that Ag Order 2.0 and Ag Order 3.0 have largely the same requirements for monitoring and reporting. The total nitrogen applied requirement was expanded to more ranches, but the method of reporting remains constant. Although the Water Boards do not train consultants directly, staff is supportive of increasing the technical capacity of consultants to meet increasing technical demands, as well as an increase in monitoring capacity; we have devoted staff resources, where applicable, to this end.

Ranch tiers are based on relative risk to water quality based on site-specific conditions; assigned requirements are commensurate with a ranch's relative risk to water quality. Regarding the public availability of information, the data and information required by proposed Ag Order 3.0 are necessary to address water quality problems. Staff will continue to implement the rules of the Public Records Act as required by the law. Staff has posted on the Central Coast Water Board's website the process taken when a Public Records Act request is received for information a grower claims is exempt.

Staff has complied with noticing requirements and provided a comment period of over 60 days for Ag Order 3.0 and its associated MRPs. The December 2016 board meeting included a discussion item for Ag Order 3.0 and a separate discussion item for the MRPs, and several outreach events were held prior to and during the drafting of Ag Order 3.0, which included input and feedback from agricultural, environmental and other interested parties. The 2014 Integrated Report and the SIP WDR are not part of the Ag Order.

Letter No.: 12
Page No.: page 12-13
Topic: Concern about the last minute influences to the Ag Waiver 3.0 from the East San Joaquin (ESJRWC) Draft that is scheduled for release in February

Comment: Mercer 8
It is possible that the ESJRWC Draft WDR Order will be released in late February. This could be a few days prior to the adoption of Ag Waiver 3.0 at the March Central Coast Board Adoption Hearing. It would not be desirable for the Central Coast Water Board to make last minute changes to the proposed Ag Waiver 3.0 based upon the ESJRWC WDR Order without allowing for public comment.

Response:
Staff agrees with the commenter. Even if the State Water Board issues a draft East San Joaquin Water Quality Coalition order (ESJ Order) in late February, the final order will not be in effect before Ag Order 2.0 expires. Any changes to Ag Order 3.0 that would be triggered by the ESJ Order would first be provided to the public for review and comment. At this time, staff anticipates that the ESJ Order will not be adopted until late spring or early summer of 2017. Ag Order 2.0 expires on March 14, 2017, and the Board must replace the order before its expiration to avoid a lapse in coverage. The conclusions of the ESJ Order and other statewide legal decisions currently pending will affect future amendments or reissued orders as required.

Letter No.: 12
Page No.: page 13
Topic: Requests to board

Comment: Mercer 9
Finally, I am requesting that the Water Board consider the following:

- If Water Board proceeds with adoption of the hybrid Ag Waiver 3.0, as proposed, milestones and deadlines should be inserted for updating Findings and Conditions and Compliance Report forms.
- Tier 3 annual reporting of the INMP Effectiveness Report and WQBP should be reduced to a less frequent reporting schedule.
- All Tier 3 ranches should be evaluated to determine if they should be more appropriately designated as Tier 2 ranches.
- Neonicitinoid pesticides should be removed from the CMP Monitoring Program until important technical questions are addressed.
- Water Board could establish a process about how they will consider the East San
- Joaquin Draft WDR if it is released shortly before the Ag Waiver 3.0 Adoption Hearing.

Response:
See response to comment Mercer 5, Mercer 22, Groot 8, Reck 6, Groot 10, Kane 4, Sutton 9, Taylor-Silva 27, Mercer 6, and Wineman 12. The criteria for ranch tiering in Ag Order 3.0 are the same as for Ag Order 2.0. Like Ag Order 2.0, Ag Order 3.0 contains a provision where the grower can seek review of the tier assigned to the ranch (see condition 18).

Letter No.: 1
Page No.: page 2-3
Topic: INMP

Comment 1: Sutton 8
Currently and in Ag Order Version 3.0, the initiation and annual reporting requirements are wide open, leaving major subjectivity with the Water Board Executive Officer to determine the need for and requirements of the INMP. Furthermore, Farm Bureau recommends that all MRP's be included in the Ag Orders themselves.

Response:
Conditions 72-74 describe which ranches are required to develop and implement an irrigation and nutrient management plan. For newly enrolled tier 3 ranches, the criteria for whether an INMP is required are the same as that implemented in Ag Order 2.0.

The monitoring and reporting programs (MRPs) are necessarily separate orders that can be revised during the term of Ag Order 3.0, when necessary. This flexibility gives the Executive Officer the ability to adjust monitoring requirements to meet the goals of the waiver of waste discharge requirements. This flexibility also benefits growers in some cases; for example, a grower may need to request a time extension for a required report, which the Executive Officer has the authority to grant, if the requirement is contained in the MRP.

With this flexibility, the regulated community can propose and staff can make modifications as needed and in a timely manner.

Letter No.: 4
Page No.: page 3
Topic: INMP

Comment: Groot 10

As to the frequency of requiring effectiveness reports, annual cycles for reporting would be a financial hardship on those farm operators who are required to make such a filing. Farm operators will seek the assistance of agronomists, watershed specialists, soil experts, and attorneys who specialize in writing reports that contain water quality and intellectual property. These experts add up to a tidy sum each reporting cycle. We suggest that effectiveness reports be required only once during the entire Ag Waiver 3.0 timeframe, instead of annual reporting requirements.

Response:
Agreed. In proposed Ag Order 3.0, staff has revised the irrigation and nutrient management plan reporting requirement for annual reporting to once in the term of the order, as the commenter suggests.

Letter No.: 6
Page No.: page 6 (footnote)
Topic: INMP

Comment: Fisher 5
[T]he requirements for the Irrigation and Nutrient Management Plan ("INMP") have expanded. Under the Proposed Ag Order 3.0, Tier 3 growers who are required to develop and implement an INMP must verify the overall effectiveness of the INMP annually by submitting an INMP Effectiveness Report as required by the MRP. (Ag Order 3.0, Provision 73). Previously, only Tier 3 dischargers that have farms with high nitrate loading risk to groundwater were required to submit an INMP Effectiveness Report.

Response:
The commenter has misunderstood the requirement. The Irrigation and Nutrient Management Plan (INMP) requirement has not expanded. Only ranches required in Ag Order 2.0 to develop and implement an INMP and potentially new tier 3 ranches that enroll in the Ag Order are required to comply with this condition. The criteria for determining whether a newly enrolled tier 3 ranch will be required to develop and report on an INMP will be the same as Ag Order 2.0. Since no new tier 3 ranches have enrolled in Ag Order 2.0 in the past few years, staff anticipates that the number of ranches subject to the INMP requirement in Ag Order 3.0 will be virtually the same as Ag Order 2.0.

Also, due to the comments received, staff has proposed modifying the reporting of the Irrigation and Nutrient Management Plan (INMP) effectiveness report frequency from annually (as was originally proposed) to once in the life of the order, which is consistent with the previous Ag Order, Ag Order 2.0.

Letter No.: 17
Page No.: page 2-3
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 5
I submitted an email to Mr. Chris Rose regarding the TIER 3 MRP requirement to "guess at" loading of nitrate to groundwater and changes in loading over time….There are two problems with responding to questions regarding loading: 1) Scientific and 2) Legal.

First off, it is not known what current or past NO3 loading amounts are for farm sized entities. It is clear, that in the past that NO3 loading to groundwater was greater than zero when you consider the Salinas Valley as a whole, but it cannot be known how much an individual farm or even field contributed to the loading issue.

Response:
Since the comment was received, Mr. Zelinski and Mr. Rose corresponded and clarified the requirement. The comment stems from the requirement to submit an Irrigation and Nutrient Management Plan (INMP) effectiveness report.

The requirement is not based on measurements below the root zone, but rather on proxies that can be tracked and evaluated to show reductions in the nitrogen loading (discharge) potential.

The effectiveness of the INMP could be based on the reduced use of nitrogen fertilizer applications (and other nitrogen containing materials) and/or the implementation of irrigation and nutrient management practices.

The effectiveness must be evaluated qualitatively, but should be based on a monitoring program and methodology specifically designed to evaluate reductions on nitrogen loading/discharge.

Staff has identified three different evaluation methods that could be used by the dischargers to evaluate and report the effectiveness of the INMP:
- Soil sample data
- Trends in nitrogen applications
- Groundwater well data.

Letter No.: 17
Page No.: page 3
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 6
If we are to discuss NO3 loading to surface water and NO3 concentration and discharge amounts are measured, you can estimate loading and potentially changes in loading to surface water, however groundwater is a completely different situation. It should be obvious that loading does not equal the difference between applied N and removed N. There are many possible fates of applied N in agricultural settings.

Response:
See response to comment Zelinski 5. Growers are not required to measure or estimate the changes, processes, and conversions that are part of the nitrogen cycle occurring in the root zone.

The Irrigation and Nutrient Management Plan effectiveness report requires the evaluation of the nitrogen potential loading using “proxy” methodologies. Such proxies are in place of a direct quantitative measurement. One simple proxy that has been discussed and recommended by the Expert Panel is the difference between the nitrogen applied over the amount of N removed at harvest plus the remaining woody materials.

Paragraphs extracted from the Expert Panel final report include:
Summary page iii:

5. If more nitrogen is applied to a field than is removed, over the long term, most of the excess nitrogen applications will be leached to groundwater. This is a simple concept that does not require modeling to illustrate.
Summary page iv:
2. Adoption of the A/R ratio as the primary metric for evaluating progress on source control, with eventual impact on the groundwater quality.
Page 26:
2. Adoption of the A/R ratio as the primary metric for evaluating progress on source control, with eventual impact on the groundwater quality.
A/R Nitrogen Applied/
Nitrogen removed via harvest + Nitrogen sequestered in the permanent wood of perennial crops
Page 27:
4.2 A/R Ratio. The mechanism of nitrate movement through and beyond the crop root zone is via water flow (irrigation and/or rainfall deep percolation). Therefore, management practices must attempt to minimize deep percolation, and also match the available nitrogen to the plant needs at appropriate times. To reduce or maintain nitrate levels in the groundwater, improvements have to start at the surface, which means on-farm.

Letter No.: 17
Page No.: page 3
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 7
Applied N - is not an accurate measure of how much N even made it to the root zone and had the potential for crop uptake. N available for uptake needs to be proximal to roots and especially root hairs as that is where uptake occurs. It also needs to be in a form that has the potential for uptake. Many forms of N in soils are not available for uptake in their current form but transformations are constantly occurring at an unknown rate and direction. These transformations will influence uptake of N and therefore may increase or decrease the potential for loading of NO3 to groundwater. Which transformations are occurring and if they are making N more or less available to crops is not known to any level of precision and this is a critical component in estimating loading.

Response:
See response to comments Zelinski 5 and 6. The Central Coast Water Board protects water quality by regulating discharges and requiring, among other things, management practices to control or minimize discharges. From a water quality protection point of view, all nitrogen applications to the farm/ranch, if not removed from the farming system when crops are harvested, have the potential to be discharged to either surface water or groundwater.

The nitrogen loading and discharge potential is not to be confused with the nitrogen available for crop uptake. In terms of nitrogen loading potential, whether the nitrogen is available for the crops/roots to take up (absorb) is irrelevant. All forms of nitrogen could potentially be discharged unless the nitrogen is removed from the system. The board recognizes that nitrogen management involves making estimates. The lack of absolute precision does not justify eliminating nitrogen tracking and management, which is widely accepted as the most effective way to prevent nitrate pollution.

Letter No.: 17

Page No.: page 3
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 8
Removed N - is even a more difficult parameter to measure. The amount removed assumes many unknown quantities. They may be known in a very general sense but specifically, to a three-acre block of lola rosa grown in mid-summer on a non-uniform sandy loam field grown with irrigation water of differing levels of NO3 at each irrigation - this is simply impossible to know….. The data is useless because even the magnitude of the inaccuracy is unknown…… Essentially, that unless you measure N content of crops harvested on a very small spatial extent you cannot make even a rough estimate of N removed.

N removed additionally assumes that yields are uniform over a field and that the amount of N removed is consistent across varying yield levels. Protein content in harvested fractions of a crop (i.e. N content) varies with the amount of N taken up by the crop. This may even be independent of yield….. More than that – even if there is you have this information for each of the dozens of crops grown, not counting the 100's of differing varieties, the yield also varies on this limited spatial extent for a number of physical (compaction), chemical (salinity) and biological (weed pressure) reasons.

Response:
See response to comments Zelinski 6, 5, and 7. Staff has investigated the likelihood of measuring the nitrogen removed at harvest and concluded the nitrogen removed can be measured or calculated by taking a sample of the plant tissue harvested from the field and submitting it to a laboratory for the nitrogen content analysis. Many laboratories perform this analysis routinely. This analysis is already required and has been utilized under the Central Valley Water Board's dairy order. The nitrogen removed at harvest can be calculated as:

The total weight (tons) and percent wet weight or volume (cubic yards) and density (grams per liter) of harvested material removed from each land application area should be multiplied by the laboratory analyses for total nitrogen (expressed on a dry weight basis).

The laboratory analyses for total nitrogen is expressed on a dry weight basis.

As far as the non-uniformity of the harvest materials across the field, it is irrelevant when the measurement is based on the total weight of harvested material removed from each land application area.

Letter No.: 17
Page No.: page 3
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 9
To ask anyone, especially growers who are not aware of the nuances of the nitrogen cycle, is foolish.

Response:
Comment noted.

Letter No.: 17
Page No.: page 4

Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 10
Loading is also a function of irrigation management and winter season rainfall. Both components suffer from temporal and spatial variability that is unknown on the scale necessary to estimate loading.

Response:
Staff is aware of and recognizes the variability, unpredictability, and complexities associated with estimating the amount of water flux passing below the root zone of a given area, especially during the rainy season. See response to comments Zelinski 6, 5, 7, and 8.

Although measurement of water flux is not required in proposed Ag Order 3.0, staff has investigated the possibility of a direct measurement and estimation of the water flux and has concluded that it is possible to measure water flux.

The direct measurement of the nitrogen loading in the root zone, including the water flux, is currently provided as a service by an agricultural company that is based in Santa Maria.

Letter No.: 17
Page No.: page 4
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 11
There are additional concerns regarding providing estimates on loading. The greatest concern is how will this information be used? And to whom would it be available? If it is just a subjective GUESS than what value does it have, other than a potentially negative one to my clients?

Response:
A purpose of the Irrigation and Nutrient Management Plan effectiveness monitoring and reporting is to drive improvements in management practice effectiveness and provide information regarding reductions of nitrogen loading to surface water and groundwater over time. Staff will use the information reported for this purpose.

Letter No.: 17
Page No.: page 4
Topic: INMP effectiveness- Anti Deg

Comment: Zelinski 12
If we provide an INACCURATE estimate of loading, and it exceeds zero, might we not be in violation of the state's anti-degradation policy regarding groundwater quality?

Response:
The Antidegradation Policy applies to the issuance of the Ag Orders. Regulated discharges must comply with the conditions of the orders, but the Policy's requirements do not directly apply to individual growers.

Letter No.: 17
Page No.: page 4
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 13
Legal
If we provide an INACCURATE estimate of loading, …… And, if so, why would we document that in this potentially public record?

If we provide an INACCURATE estimate of loading, and it exceeds zero,..... Therefore, I will resist efforts to compel my clients to provide this information, because it will be inaccurate, and I can't even tell you by how much. Additionally, it could be construed as an admission of guilt regarding previous loading – and there is NO WAY to confirm nor deny this accusation.

Response:
Comment noted. Please see response to comment Zelinski 12.

Letter No.: 17
Page No.: page 4
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 14
The state board commented clearly on this very issue: "An accurate calculation of the load discharged to surface water and groundwater requires a much more nuanced calculation than simply comparing the nitrogen applied to the fields and the amount expected to be taken up by the crops……. we will strike the requirements in the Agricultural Order to include calculations of the balance ratio of nitrogen applied to nitrogen uptake, the estimation of annual loading of nitrogen to groundwater and surface water, and the annual reduction in nitrogen loading to groundwater, as well as the requirement to report this information to the Central Coast Water Board."

Response:
The State Water Board modified the Irrigation and Nutrient Management Plan (INMP) and the effectiveness monitoring reporting requirements, which are currently as follows:

Ag Order Condition 75. By October 1, 2016, Tier 3 Dischargers with High Nitrate Loading Risk farms/ranches must verify the overall effectiveness of the INMP per MRP Order No. R3-2012-0011-03. Dischargers must identify the methods used to verify effectiveness and include the results as a report with the Annual Compliance Form, submitted electronically in a format specified by the Executive Officer.

Tier 3 Monitoring and Reporting Program
5. Tier 3 Dischargers must evaluate the effectiveness of the INMP. **Irrigation and Nutrient Management Plan effectiveness monitoring must evaluate reductions in loading** based on reduced fertilizer use and improved irrigation and nutrient management practices **in order to minimize nitrate loading to surface water and groundwater**. Evaluation methods used may include, but are not limited to analysis of groundwater well monitoring data or soil sample data, or analysis of trends in nitrogen application data.
B. Irrigation and Nutrient Management Plan Reporting
1. By October 1, 2016, Tier 3 Dischargers that have farms/ranches with high nitrate loading risk to groundwater must submit an INMP Effectiveness Report **to evaluate reductions in nitrate loading to surface water and groundwater** based on the implementation of irrigation and nutrient management practices.

The State Water Board modifications included the evaluation of the nitrogen loading, and the reporting of the loading reductions as well as the methodology designed to estimate such reductions.

Letter No.: 17
Page No.: page 5
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 15
What is our estimate of loading of NO3 to groundwater: unknown
Has loading increase, decreased or remained the same: Since current loading is unknown and past loading is unknown.
Thus, the answer to any question regarding loading to groundwater is: unknown – and not possible to know.

I am aware that the current requirement of the Tier 3 MRP requires an estimate of loading; however, as I have indicated above, an accurate and useful estimate of loading is not possible to provide. Mr. Rose has indicated that these facts raise issues and he needs to discuss them with Board's Staff in order to formulate a response.???

Response:
See response to comments Zelinski 5-14. Staff has revised language in section 6.A.5 of the monitoring and reporting program for tier 3 ranches to clarify that INMP effectiveness reports must evaluate the reduction in new nitrogen loading potential.

A purpose of the Irrigation and Nutrient Management Plan (INMP) effectiveness reporting is to demonstrate that the discharger has engaged in the iterative process and has collected in-field measurements and evaluated the nitrogen loading potential since implementing the INMP.

Letter No.: 17
Page No.: page 5
Topic: INMP effectiveness- N loading estimations

Comment: Zelinski 16
I request that the Board correct the Tier 3 MRP by adopting the State Board's recommendations. I have also encouraged other state agencies (FREP, CDFA) to investigate the question of whether or not an accurate estimate of loading of nitrate to groundwater can be made on a farm or field scale? And if it can, to demonstrate how can it be done and with what degree of "accuracy" the estimate can be made? Personally, I don't think it can be estimated much beyond "somewhere between none and a lot", and that this information isn't useful to anyone, and does not advance water quality improvement.

Response:
See response to comments Zelinski 5-15.

Letter No.: 11
Page No.: page 12-13
Topic: INMP

Comment: Taylor-Silva 7
The Draft MRP specific to Tier 3 dischargers proposes changes to the Irrigation and Nutrient Management Plan (INMP) requirements that improperly defer Executive Officer decisions to the Executive Officer's broad discretion. Specifically, Part 6.A.2 states that the Executive Officer would determine if an INMP is required for a new Tier 3 discharger using criteria established in Order No. R3-2012-001 l. It is improper to cite to criteria in a previous order that is now being replaced with R3-2017-0002. This order should specifically state the criteria that the Executive Officer will use to make Tier 3 determinations. Such identification of criteria is necessary of all interested persons, especially growers that may be subject to new and increased regulatory burdens based on this determination.

Response:
The Executive Officer will use the Nitrate Groundwater Pollution Hazard Index that can be reviewed at:
http://ucanr.org/sites/wrc/Programs/Water_Quality/Nitrate_Groundwater_Pollution_Hazard_Index/

In the absence of soil type information used in the Nitrate Groundwater Pollution Hazard Index, the Executive Officer will use Monitoring and Reporting Program WB 2012-0011 Table 4 criteria, which include crop type, irrigation type, and irrigation water nitrate concentration.

Letter No.: 12
Page No.: page 3
Topic: INMP

Comment: Mercer 12
4. There was no explanation offered for the annual reporting frequency for Tier 3 INMP Effectiveness Reports or Water Quality Buffer Plan, and thus, this new requirement appears somewhat capricious, especially considering that not all growers are enrolled in the Ag Waiver.

Response:
Refer to response to comment Fisher 5. Staff has proposed to revise the reporting frequency from annually to once in the term of the Ag Order, which is consistent with Ag Order 2.0 as well as recommendations by grower advocates.

Letter No.: 1
Page No.: page 1
Topic: Surface Water Monitoring

Comment: Sutton 9
The expanded constituent sampling (including for the neonicotinoids) and the frequency of the monitoring have created a program where the benefits do not “outweigh the burden, including costs, of these additional monitoring requirements”. Farm Bureau recommends that there needs to be more scientific findings demonstrating that the sampling and monitoring increases are truly beneficial.

Comment: Groot 14
We express serious concerns of including five neonicotinoids in water quality sampling requirements. There are no findings that support the requirement for additional monitoring of insecticides, along with no findings that should an additional burden of compliance is reasonable

compared to the benefit to be conferred…if Regional Water Board staff has indications that this class of insecticides are detrimental to surface or groundwater quality, that science has yet to be shared with the regulated community.

Letter No.: 7
Page No.: page 4
Topic: Monitoring - addition of neonicotinoids

Comment: Wineman 20

We do not agree with the addition of neonicotinoids to the surface water sampling requirement. **We understand that this would set statewide precedent and do not believe that there have been transparent or sufficient findings to substantiate the increased cost and reporting burden.**

Response (to Sutton 9, Groot 14, Wineman 20):
See response to comment Groot 13 and Mercer 16. Please see findings 83-86 in Attachment A as well as the staff report and agenda item presented at the December 2016 board meeting posted on our website. Staff has added additional findings based on these documents. Neonicotinoid and pyrethroid usage have been increasing significantly over the past several years. The staff report and finding 85 also reference a collaborative study between CCAMP, CDPR, and Granite Canyon Laboratory performed in September 2014. The study data showed frequent detections of imidacloprid and pyrethroid pesticides, with toxicity commonly found to *Hyallela* (an amphipod sensitive to pyrethroids) and *Chironomus* (a fly larvae sensitive to neonicotinoids). All but one site (89%) were toxic to one or both test species. Furthermore, as noted in finding 86, CDPR's report *Surface Water Monitoring for Pesticides in Agricultural Areas of California, 2015* found that two of the four pesticides with the highest detection frequencies included the neonicotinoid imidacloprid and the pyrethroid bifenthrin.

The Cooperative Monitoring Program (CMP) conducted a special study of water and sediment toxicity in 2013-2014. In its analysis, CMP added toxicity units (TUs) across pesticide classes that could combine to create an additive toxic effect. A TU of 1.0 indicates that the added effect will be toxic, and should be indicated by the test organism. In many cases, the observed toxicity could not be explained by the TU (i.e., the TU was less than 1.0). With respect to water column toxicity, the report stated "…a substantial portion of the observed mortality could not be readily explained by the pesticides measured in the study (i.e. the measured pesticides were not detected, or were below toxic thresholds). Neonicotinoids were not assessed, and the indicator species Chironomus, which is sensitive to neonicotinoids, was not used as a toxicity indicator.

Therefore, due to increasing usage in the region, high detection rates, toxicity caused by neonicotinoid pesticides, and the unexplained toxicity from the 2013-2014 CMP special study, staff has added neonicotinoids to the list of required pesticides for monitoring, and has added a test organism sensitive to these chemicals for toxicity testing. Pyrethroids are also commonly used, detected, and cause toxicity; therefore, pyrethroid monitoring is retained in the monitoring program, as is *Hyalella,* which is sensitive to pyrethroids.

Regarding the frequency of monitoring, the nonpoint source policy requires "sufficient feedback mechanisms so the RWQCB, dischargers, and the public can determine whether the program is achieving its stated purpose(s), or whether additional or different MPs or other actions are required." Water Code section 13269 requires monitoring that will be adequate for the board to assess whether the Order's requirements are adequate. Having two years of pesticide

monitoring will allow the monitoring program to better capture seasonal and annual variance and will be key information informing the Water Board during the drafting of Ag Order 4.0 (likely to be adopted in 2020).

Given the information provided above, the burden, including costs, of these reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from them.

Letter No.: 4
Page No.: page 3
Topic: Surface Water Monitoring

Comment: Groot 13
There appears to be no nexus that clearly indicates that additional toxicants need to be included in monitoring programs, such as phenol and metals. Prior sampling has not indicated that these are constituents of concern and mandates expensive laboratory tests for items that most likely will not indicate watershed impairments. Removing constituents from sampling and testing requirement that are not currently indicative of impairments should be prioritized from Ag Waiver 3.0 monitoring requirements.

Response:
Consistent with the commenter's request, staff has evaluated surface water monitoring data and reduced the requirements as appropriate where non-detections suggested no impacts. The supplemental monitoring report submitted by Central Coast Water Quality Preservation, Inc. for data collected from 2013-2014 shows detections and exceedances for metals. All metals that were sampled for were detected, and there were water quality exceedances for boron, copper, selenium, and zinc. The surface receiving water requirements include total phenolic compounds. Data indicate that one of phenols, nonylphenol, is bioaccumulating in some areas of the region. The laboratory price to analyze one pollutant in a pollutant group is largely the same as the entire suite of pollutants in that group. Therefore, we kept total phenolic compounds in the requirement. Carbamate pesticides, organochlorine pesticides, and toxicity to minnow assessment were removed from the required monitoring because no significant exceedances occurred. Additionally, the bioassessment requirement was removed for the term of Ag Order 3.0. These changes helped to lower cost.

The comment also misstates the legal standard that applies to monitoring requirement. There is no requirement to show a nexus clearly indicating the need, only that "the burden, including costs, … bear a reasonable relationship to the need for the [monitoring] and the benefits to be obtained …" (Wat. Code, §13267, subd. (b).)

Letter No.: 4
Page No.: page 3
Topic: Surface Water Monitoring

Comment: Groot 15
The frequency of monitoring for pyrethroid pesticides from once per term of the Ag Waiver to twice annually is not demonstrated through supportive scientific data that this change is warranted nor justified…there has been no evidence provided that there will be any additional benefit to water quality objectives should this monitoring frequency be included in Ag Waiver 3.0.

Response:
See response to comment Sutton 9.
The supplemental monitoring report submitted by Central Coast Water Quality Preservation, Inc. for data collected from 2013-2014 shows detections and exceedances of pyrethroid pesticides at many sites. The concentration of pyrethroids at many locations was also high enough to explain the observed toxicity in many cases. As described in a staff report from the December 2016 board meeting, usage of pyrethroid pesticides has been increasing in recent years. Previous detections, exceedances, pyrethroid-caused toxicity, and increasing usage led staff to incorporate additional monitoring of this class of pesticides in Ag Order 3.0.

Letter No.: 6
Page No.: page 9
Topic: Surface Water Monitoring

Comment: Fisher 12
Prior sampling has not indicated that these new additions are constituents of concern or that increased frequency is warranted. Further, the expanded constituent sampling (such as the addition of neonicotinoids and more pyrethroid testing) and increased frequency of monitoring have created a program where the benefits gained from the monitoring do not bear a reasonable relationship or outweigh the burden, including costs, of these additional monitoring requirement …the revisions included in the Ag Order 3.0 MRPs are not supported by findings that show the burden of compliance is reasonable in light of the benefit to be conferred…due to the increase in monitoring mandated by Regional Board, the invoices for just surface water monitoring will be 69% higher than last year. This increase…is burdensome and does not bear a reasonable relationship to any potential benefit to be obtained.

Response:
See response to comment Groot 11 and 15, Sutton 9, Taylor-Silva 16.

Letter No.: 16
Page No.: page 2
Topic: Surface Water Monitoring

Comment: Livengood 8
MRP Expansion and Changes. Ag Order 3.0 relies on expanded sampling frequencies as prescribed in the August 2016 MRPs which is unnecessary and will increase compliance costs without benefit to the program. Increasing the frequency of pesticide sampling does not reflect a coherent planning process nor does the monitoring design address clear scientific objectives sufficiently to mitigate the additional burden and cost it requires.

Response:
See response to comment Sutton 9, Groot 11 and 15, Taylor-Silva 16.

Letter No.: 16
Page No.: page 2
Topic: Surface Water Monitoring

Comment: Livengood 9

MRP Expansion and Changes. The Board should consider a sufficient interval in such sampling to reflect changes to cultural practices by owners and operators and modifications to available pesticides and restrictions on use imposed by the California Department of Pesticide Regulation.

Response:
See response to comment Sutton 9. Proposed Ag Order 3.0 does not include restrictions on the use of the pesticides added to the monitoring and reporting program (MRP) for surface receiving waters, i.e., neonicotinoid pesticides. One of the goals of the MRPs is to assess toxicity from these pesticides. As indicated in response to comment in Sutton 9, use of these pesticides has increased, as has the toxicity from these pesticides; Ag Order 3.0 must assess toxicity and the pesticides contributing to toxicity.

Letter No.: 2
Page No.: page 2
Topic: MRP Cost

Comment: Schmidt 3
Ideally, the monitoring plan should be developed to meet technical objectives with minimal cost. In the current Ag Order v2.0 five year period (ending in 2016) additional monitoring for pesticides and other toxicants was conducted at each site during one monitoring year out of five (2013 in the south; 2014 in the north). Though more data is always preferable, thorough monitoring once in a five year period has proven highly useful for the CMP in the past and is also the basis for the design of the RWQCB's own CCAMP monitoring program, which samples watersheds on a rotating, once-in-five-year frequency…….2017 MRP, It requires the CMP to perform additional monitoring for pesticides and other toxicants in both sediment and water during two monitoring events in 2017……..Analytical costs for the proposed additional toxicant monitoring are significant, requiring a 69% fee increase for CMP participants in 2017. Costs would be mitigated, however by a return to a more normal budget for 2018-2019.

Response:
See response to comments Sutton 9, Groot 11 and 15, Taylor-Silva 16. The required information will inform staff during the implementation of Ag Order 3.0 and will also help inform necessary requirements for Ag Order 4.0. The Cooperative Monitoring Program (CMP), which conducts surface receiving water sampling in agricultural watersheds on behalf of growers, reported in its 2013-2014 special study of water and sediment toxicity that "…a substantial portion of the observed mortality [of toxicity indicator species] could not be readily explained by the pesticides measured in the study (i.e. measured pesticides were not detected, or were below toxic thresholds)." Ag Order 2.0 required lower frequency of pesticide monitoring, as the commenter states, and the observed toxicity could not be explained. Because many growers have switched to the use of different pesticides since Ag Order 2.0 was first adopted and CMP monitoring during Ag Order 2.0 focused on the abandoned pesticides and indicator species, staff is proposing in Ag Order 3.0 monitoring requirements that reflect current pesticide use, including neonicotinoids, which CMP has never sampled for. Two years of data is necessary to assess the impact of these pesticides and how to move forward in future agricultural orders, i.e., Ag Order 4.0. Note that CCAMP has years of monitoring data in multiple watersheds, whereas the Proposed Ag Order 3.0 is requiring pesticide monitoring in only two years with neonicotinoid pesticides being tested for for the first time.

Letter No.: 2

Page No.: page 1-2
Topic: MRP Cost

Comment: Schmidt 4
Ideally, the monitoring plan should be developed to meet technical objectives with minimal cost…. Costs would be mitigated, however by a return to a more normal budget for 2018-2019……. 2018 and 2019 Draft MRP The draft MRP would require the CMP to perform the additional twice-annual toxicant monitoring in both 2017 and 2018, doubling the increased cost. This change was not discussed with CCWQP staff or growers. Certainly, past CMP data indicate the presence of toxicity to sensitive aquatic organisms, and investigation into the causes is warranted. Because of the high cost of laboratory analysis however, it is important to avoid sampling that is redundant or otherwise not informative. Besides the general idea of "more data is always better," it is not clear what would be gained by repeating the proposed 2017 toxicant monitoring again in 2018 for Ag Order 3.0.

In the past a multi-year plan was established in the Ag Waiver and Ag Order v2.0. This approach should continue, and the CMP should avoid one shot programs as it neither increases the scope of data to allow for meaningful trend analysis nor provides a better focus on an area of concern.

Response:
See response to comment Sutton 9, Schmidt 3.

Letter No.: 2
Page No.: page 2
Topic: MRP Cost

Comment: Schmidt 5
To pay for the 2017 CMP the fees charged to growers increased by 69%. A grower with a 5 acres farm saw fees go from $47.93 in 2016 to $80.83 in 2017. An operation with 2,500 acres had fees go from $5,887.5 to $9,930.25. This does not include other compliance costs associated with the Draft Order v3.0, including repeated groundwater monitoring and TNA reporting. Some growers believe this steep increase makes participation in the CMP less advantageous, as the original rational for a third party CMP was to both reduce expenses and ease the burden on RWQCB staff.

Response:
See response to comment Groot 2, Taylor-Silva 12.

Letter No.: 2
Page No.: page 2
Topic: MRP Scientific process

Comment: Schmidt 6
Specifics of the monitoring plan should be developed by technical staff in a scientific process. While the current proposed MRP included technical input from the RWQCB staff and some from the CCWQP, it does not reflect a coherent planning process nor does the monitoring design address clear scientific objectives.

Response:

See response to comment Sutton 9, Schmidt 7.

Letter No.: 2
Page No.: page 3
Topic: MRP additional monitoring/cost/purpose

Comment: Schmidt 7
A final concern with the new MRPs as proposed for 2017-2019 is the list of additional toxicants to be monitored. The list includes some toxicant classes which did not prove to be important contributors (if at all) to aquatic toxicity in the past; for example metals and phenol. The proposed MRP draws no distinction between sites with a history of aquatic toxicity and pesticide detection, and those that have routinely had non-toxic results with no detections. Use of program resources to sample sites with non-detection or non-toxic results is not warranted and results in expensive laboratory analysis with little likelihood of increasing the understanding of impairments in specific watersheds.

Furthermore, adopting a MRP which cannot be justified over the long term results in increased cost without any meaningful benefit.

Response:
See response to comment Groot 13, Sutton 9, Schmidt 3. Analysis of additional toxicants, such as neonicotinoids and pyrethroids, and using indicator species *Chironomus* may help explain the observed yet unexplained toxicity. Staff looks forward to continuing dialogue with CMP staff in an effort to better understand and detect water quality impacts from agricultural discharges; such a dialogue is likely as staff moves forward with developing a new agricultural order shortly after adoption of this interim shorter term Ag Order 3.0

Letter No.: 2
Page No.: page 3
Topic: MRP watershed monitoring programs

Comment: Schmidt 8
The EPA has extensively reviewed the design of watershed monitoring programs. Goals need to be established for the long term, particularly where the prime objective, as with the Ag Order, is trend monitoring. "… trend monitoring is intended to detect water quality changes that occur over a longer time frame (>10 years) due to the size and complexity of the watershed or more gradual implementation of management measures." (Designing Water Quality Monitoring Programs for Watershed Projects, TechNotes 2, National Nonpoint Source Monitoring Program, EPA, 2015, pg. 7-8) "Trade-offs between the expense and personnel effort to accommodate such constraints and the value of the resulting information must be considered when selecting variables to monitor." (ibid, pg. 10)

Response:
See response to comment Groot 13, Sutton 9, Schmidt 3. We have considered the trade-offs between the expense and effort of collecting the surface water monitoring data required by the MRPs. When the test organism *Chironomus* was added to the list of species included in toxicity monitoring, the fathead minnow was removed. Neonicotinoids were added to the list of pesticides to be monitored for and carbamates were removed. Staff made these changes in

response to changes in pesticide use trends in the region and to mitigate increases in the monitoring costs.

Letter No.: 2
Page No.: page 4
Topic: MRP Alternative Monitoring Design

Comment: Schmidt 9
Draft Ag Order v3.0 Page 4 of 4 December 29, 2016
One alternative, raised in our comments to the RWQCB Board in Watsonville in December, would be to perform the additional toxicant monitoring at half the sites in 2017, the other half in 2018, and then use the data to conduct analysis, reporting and outreach in 2019. The review of the data collected will then be available to the RWQCB prior to adoption of Ag Order 4.0. As the 2017 MRP toxicity monitoring may not be conducted until after the March, 2017, RWQCB Board meeting in Watsonville, this is still a viable option.

Response:
See response to comment Sutton 9. Staff believes it is necessary to assess pesticide chemistry and toxicity with two years of monitoring.

Letter No.: 11
Page No.: page 12
Topic: MRP Alternative Monitoring Design

Comment: Taylor-Silva 27
…Draft Attachment A fails to include adequate findings to support increased surface water monitoring using test species for toxicity testing, and in particular, using *Chironomus*. Similarly, Draft Attachment A fails to adequately support the need for expanded water column testing for the neonicotinoids. Draft Attachment A appears to equate detection with exceedance or impact to beneficial uses, which is inconsistent with the Basin Plan. The pesticide objective in the Basin Plan states, "No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses." (Basin Plan, III-4.) To determine impacts to beneficial uses, and where no adopted numeric water quality objectives exist, regional boards often look to published water quality criteria for making such determinations. For the neonicotinoids, as well as many other pesticides, no such published water quality criteria exist. Thus, monitoring for the neonicotinoids will not provide any valuable information with respect to determining if there are impacts to beneficial uses. Moreover, such monitoring is expensive and inappropriate as part of a regulatory program as it is experimental. Accordingly, monitoring related to the neonicotinoids needs to be deleted.

Response:
See response to comment Sutton 9. The EPA publishes “aquatic life benchmarks based on the most sensitive, scientifically acceptable toxicity endpoint available to EPA for a given taxon (for example, freshwater fish) of all scientifically acceptable toxicity data available to EPA.” The aquatic life benchmarks for the neonicotinoid imidacloprid are available online, and include the benchmark of 1.05 µg/L for chronic toxicity to invertebrates. This is the number that has been used as a reference point for many studies, including the 2016 DPR study *Environmental Fate of Imidacloprid* and in CDPR’s report *Surface Water Monitoring for Pesticides in Agricultural*

Areas of California, 2015, which was also referenced in the December 2016 staff report and in Attachment A of the Proposed Ag Order 3.0, finding 86.

Letter No.: 8
Page No.: page 5
Topic: Monitor for toxicity instead of pesticides

Comment: Shimek 58
Any new Ag Order should focus on toxicity instead of specific chemicals. Any detection of toxicity should trigger follow-up monitoring to find the source(s) of the toxic discharge. Testing money could be saved by focusing on toxicity testing and ignoring testing for specific chemicals unless a sample is tested as toxic.

Response:
The monitoring and reporting programs for Ag Order 3.0 include the requirement to perform a toxicity identification evaluation as directed by the Executive Officer. Staff is able to invoke this requirement when warranted. Additionally, the MRPs includes toxicity monitoring each year during the term of Ag Order 3.0, including when pesticide chemistry monitoring is not required. The Proposed Ag Order 3.0 requires four separate toxicity indicator organisms that are sensitive to the chemicals widely used in the Central Coast Region. Therefore, the monitoring programs will likely detect toxicity even if the constituent causing the toxicity is not a constituent for which monitoring is specifically required.

Letter No.: 8
Page No.: page 5
Topic: Monitor for toxicity instead of pesticides

Comment: Shimek 59
When toxicity is determined, the sample can be retested to establish the specific chemical(s) causing the toxicity. In most cases, Department of Pesticide Regulation pesticide use reports can then be consulted to determine likely sources and targets for additional testing. Forensic testing must become common, rapid, and lead to enforcement.

Response:
See response to comment Shimek 58.
Regarding DPR pesticide use reports, it should be noted that these reports are not real-time. In many cases, growers will submit monthly summary pesticide use reports to their local agricultural commissioner. Furthermore, some growers still submit paper reports rather than using the electronic reporting system, and the agricultural commissioners add those reports to their databases as time permits. DPR gathers the data annually, and typically has approximately a 2-3 year lag in releasing the statewide data due to their data validation and analyses. Information gathered by the agricultural commissioners will likely be helpful, but because even it may not be real-time data, it is likely that staff will not be able to rely on it as the sole source of information.

Letter No.: 8
Page No.: page 5
Topic: Monitor for toxicity instead of pesticides

Comment: Shimek 60

Any new Ag Order should focus on toxicity instead of specific chemicals…….In addition, the RWQCB staff should explicitly be required to consult with toxicologists (i.e. Granite Canyon Pollution Control Lab) and the Department of Pesticide Regulation (DPR) to determine if toxicity test methods are adequate to detect new pesticides and if tests are not adequate, immediate adjustments must be required.

Response:
See response to comment Shimek 58. Staff consults with toxicologists to make critical updates to the MRPs as needed. For example, this is why *Chironomus*, which is sensitive to neonicotinoids, was added to the list of species used to test for toxicity in the MRPs—a collaborative study between CCAMP, Granite Canyon, and CDPR showed that neonicotinoids were present in surface waterbodies, but the previously used test organisms were not sensitive to that class of pesticide. We look forward to additional collaboration in the future to help with creating the best monitoring and reporting programs possible.

Letter No.: 8
Page No.: page 6
Topic: Monitoring relying on improved BMPs

Comment: Shimek 61
Representative receiving water Monitoring. The Ag Order relies on improved management practices to bring about improved water quality but the surface water monitoring sites are so far removed from most discharges that it is impossible to determine the efficacy of the management practices. Many Cooperative Monitoring Program sites represent a mix of discharge types including industrial and urban discharges making it impossible to determine agriculture's contribution…….

The Draft Ag Order relies on improved management practices to bring about water quality improvements and a monitoring scheme – beyond well testing -- must be designed to test the efficacy of these practices. The testing must be frequent enough and dense enough, given the known variability of the data, to determine changes within the five-year term of the Order. As already noted, forensic testing must become common, rapid, and lead to enforcement.

Response:
See response to comment Reck 6. Requirements of Ag Order 3.0 provide feedback mechanisms to assess progress. **[List them.]**

Letter No.: 7
Page No.: page 4
Topic: Monitoring - cumulative increase in cost

Comment Wineman 21:

We are particularly concerned with the cumulative increase in cost of the surface water cooperative monitoring program due to changes in the frequency and constituents being sampled. We defer to our colleagues at Preservation, Inc. to articulate the impact of these changes on the cooperative surface water monitoring program. As price-takers competing with other states and countries, Central Coast agriculture has limited opportunities to pass these increases in cost on to buyers and consumers. We are concerned with the precedent, relative benefit of the additional information, and cumulative impact on Central Coast agriculture's

economic viability. We ask the Water Board and Staff to consult with the cooperative surface water monitoring program to match sampling frequency and constituents to need and benefit.

Response:
See responses to comment Sutton 9 and Groot 2.
Letter No.: 12
Page No.: page 2 and 10
Topic: Monitoring - adding pyrethroid and neonicitinoid sampling findings in attachment A

Comment: Mercer 16
Substantially increasing Ambient Monitoring Requirements by adding pyrethroid and neonicitinoid sampling, analytical and toxicity testing requirements.

Finding 83: Neonicitinoid pesticides - The Neonicitinoid class of pesticides is *suspected* to be only one of a combination of many factors, such as hive stress, transport issues, predatory mites, which may impact honey bees and other pollinators.

Finding 84: Neonicitinoid pesticides - Not all the neonicitinoid pesticides listed in this finding are registered for use in California or have Ag labels. Thiaclopird is not registered in California. Dinotefuran is registered only for home, garden, and urban landscape use. Clothianidin is a seed treatment for corn and canola crops, which are not grown on the Central Coast, except for corn that has been grown east of Santa Maria. The same can be said for the pyrethroids. Some of the listed compounds only have urban uses and some are not registered in California. Of course, environmental laboratory analyses are generally conducted as a suite; therefore, an analysis of all neonicitinoid pesticides would occur if only one were requested. Nevertheless, Agriculture want to confirm that it is not being burdened with urban monitoring requirements because the Cooperative Monitoring Program is convenient.

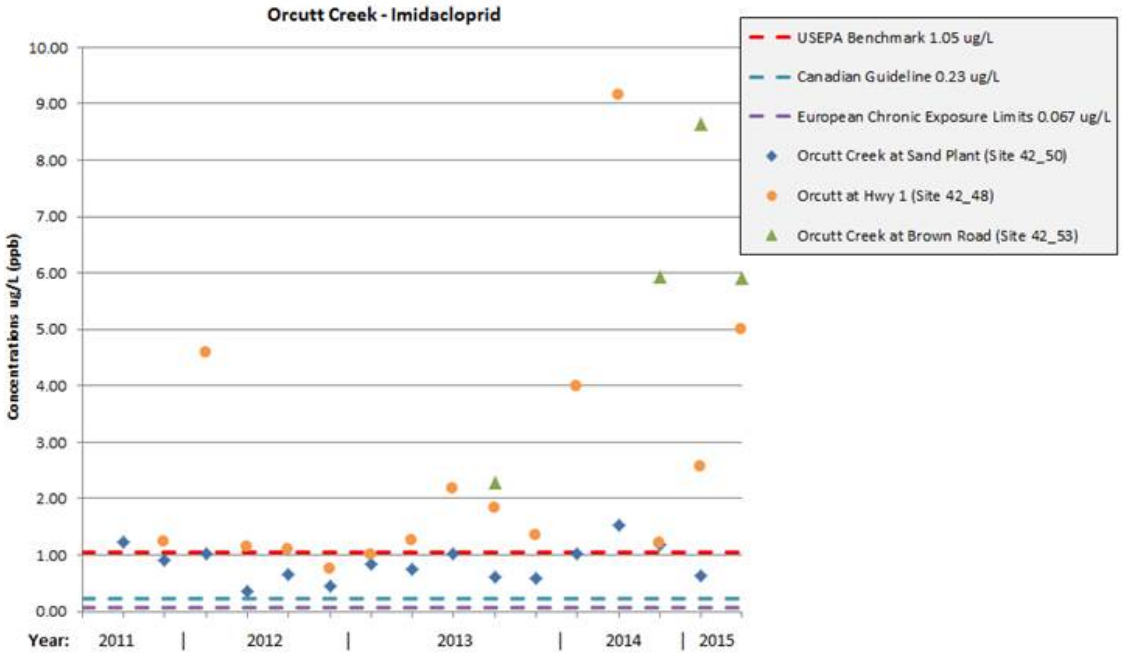
Finding 85: Neonicitinoid pesticides - No citation was provided for the referenced study and the way the data are presented in this finding creates many questions about the study conclusions. Additionally, it is questionable whether the use of this single study is a sufficient and reasonable basis for the 69% increase in ambient Cooperative Monitoring Program (CMP) costs over 2016.

Finding 86: Neonicitinoid pesticides - What is the concentration of the referenced neonicitinoid pesticide aquatic life benchmark? What is the origin of this benchmark? How was it derived? Is it an official state or federal regulatory standard? Has it been properly peer-reviewed and vetted? Is it in in the Central Coast Basin Plan? Or is it simply a benchmark that has appeared in a research paper and is being propagated into the regulatory process? Without knowing what the benchmark is, it is not possible to know whether surface and groundwater detections of Neonicitinoid pesticides, which are typically detected in fractions of a part per billion, exceed the benchmark. Notwithstanding an appropriate aquatic life benchmark, the Water Board Staff may rely on the Basin Plan narrative pesticide standard as justification for increased pesticide monitoring. However, if detection is enough to claim an exceedance of a narrative standard, then, the Water Board is using a zero tolerance approach to water quality compliance that may inappropriate.

One other point needs to be made relative to neonicitinoid pesticides. Discussions with principle scientists at a toxicity laboratory reveal that currently there is not a standard laboratory procedure for analysis or toxicity testing of neonicitinoid pesticides. Without an industry standard, there are no assurances that analytical results are precise, accurate, replicable, defensible or reflective of actual water quality conditions.

Response:
See response to comments Sutton 9 and Taylor-Silva 27. Attachment A of Proposed Ag Order 3.0, finding 85 refers to a collaborative study, not a research project resulting in a publication in a scientific journal. However, the results were discussed in CAPCA Advisor, February 2015/Vol. XVIII, No.1 (pages 19-20). Also see Executive Officer's Report, item no. 23, pages 8-9 from May 29, 2015 Central Coast Water Board meeting posted on the Central Coast Water Board website.

The origin of the aquatic life benchmark in Attachment A of Proposed Ag Order 3.0 finding 86 is the US EPA aquatic life benchmark of 1.05 µg/L. This benchmark was developed in 2008 and is considered by some toxicologists to be unprotective.[1] Toxicologists suggest an acute value of 0.2 µg/L, or lower, is appropriate to avoid chronic effects. Below is a graph illustrating imidaclorprid concentrations in Orcutt Creek through time; note that these values are in µg/L. Not only is imidaclorprid detected, but detected at concentrations exceeding known toxic levels.



Toxicity tests for neonicotinoids can be performed using EPA 821-R-02-012, which can be completed with *Chironomus* spp. as an alternate test species.

Letter No.: 1
Page No.: page 1
Topic: High risk based on crop

Comment: Sutton 11
The 2012 Nitrate Loading Risk Calculation, Risk Units recognize farm variability conditions and the risk-based reporting represents the actual high-risk operations in Tier 2 and 3. Version 3

[1] Wagner, S. September 2016. Environmental Fate of Imidacloprid. Environmental Monitoring Branch Department of Pesticide Regulation.

instead expands the TNA to those farm areas with crops of high potential but which are not high risk…Farm Bureau recommends that the 2012 TNA should be continued in Version 3.

Response:

Please see response to comment Groot 17.

There is significant nitrate pollution in the Central Coast Region in groundwater and surface waters driven by the excessive use of fertilizer (response to comment Fisher 8). The expansion of the total nitrogen applied (TNA) requirement is a necessary component of proposed Ag Order 3.0 to address this pollution. As the commenter states, Ag Order 2.0 incorporated a risk assessment approach that triggered the TNA requirement. The risk assessment was based in part on the nitrate concentration in irrigation water, as well as whether a crop with a high potential of loading nitrogen to groundwater (high risk crop) was being grown on the ranch. Note that high risk crops require more nitrogen relative to non-high risk crops. The Expert Panel[2] concluded that high nitrate concentrations in groundwater wells could not be used to "accurately pinpoint the sources of groundwater nitrates… "(page 20-21). Therefore, groundwater nitrate concentration is not a good measure of the overlying farm's risk to pollute groundwater. The Expert Panel report concluded that risk designations are not relevant to the regulation of nitrogen sources to groundwater. The Expert Panel report recommends that regulatory requirements, such as the TNA requirement, should apply to all growers, regardless of risk (Expert Panel Report, page 17). Therefore, as a starting point to phase in universal TNA reporting, staff chose the high risk crop designation as a tool. As stated above, high risk crops require more nitrogen than other crops; requiring growers who are growing high risk crops to report TNA is not arbitrary; rather, it is a logical starting point towards application of the requirement for all growers.

Total nitrogen applied reporting during Ag Order 2.0 resulted in growers reporting nitrogen applied on non-high risk crops. In several cases, growers reported nitrogen applied to non-high risk crops far in exceedance of that needed for high risk crops. Therefore, there is potential significant loading of nitrogen even from non-high risk crops.

During the four years of implementing Ag Order 2.0, staff received feedback from the regulated community, most notably regarding using a high nitrate concentration in the irrigation water to determine the nitrate loading risk to groundwater. Some growers viewed using the existing nitrate concentration of the irrigation water as a predictor of the risk of loading nitrate to groundwater as a disincentive and discouragement from using wells with elevated levels of nitrate because this might trigger the TNA reporting requirement, but did not necessarily reflect the amount of nitrogen that would actually be applied to their crops in the form of fertilizers. In general, staff found no correlation between the nitrate concentration of the irrigation water and the amount of nitrogen applied from fertilizer when the three years of total nitrogen applied data was examined; it was not a good predictor of nitrogen application.

Based on feedback from the regulated community, with the recommendations of the Expert Panel in mind, and in an attempt to phase-in the universal reporting of total nitrogen applied, staff has proposed to expand the total nitrogen applied requirement to a larger subset of ranches based on the ranch-specific risk criteria of tier and whether or not UCANR-defined high risk crops are grown.

[2] Conclusions of the Agricultural Expert Panel: Recommendations to the State Water Resources Control Board pertaining to the Irrigated Lands Regulatory Program (Sept. 9, 2014) (Expert Panel Report)

Additionally, during the four years of the Ag Order 2.0 implementation, staff has learned that the risk determination methods, which were based on Nitrate Hazard Index Rating by Crop Type, irrigation system type, and irrigation water nitrate concentration, made it difficult for growers to predict the ranch's risk. The main problem is their use as a methodology to "predict" whether the ranch is required to report the TNA. Growers were required to annually complete the risk assessment, which was based on the grower's prediction of what their activities for the coming year would be. Growers would sometimes need to do the risk assessment again in the middle of the year, which could change the risk, and therefore whether the TNA requirement applied.

Staff has now simplified the determination of the ranches required to report TNA, so both staff and the dischargers know ahead of time (a year ahead of the reporting), who is required to submit this information. Growers will also know to be aware of this reporting, so they can track and gather all information that needs to be included in the TNA reporting forms.

Letter No.: 4
Page No.: page 2
Topic: Tier 2 risk

Comment: Groot 17
These proposed changes will require many more farms to report their total nitrogen applied, regardless of risk to groundwater impairments, which penalizes the farm operators who are doing a good job of managing both their nitrogen and irrigation applications. We question that this additional information will provide any higher degree of protection for human health… We see no additional benefit to gathering data from Tier 2 farms that have already demonstrated their risk to water impairments is low.

Response:
Please see response to comment Sutton 11.

Staff is unable to distinguish between growers who are applying reasonable amounts and growers who are over-applying nitrogen to the crops without nitrogen applications information being reported. Furthermore, ranches that were not required to report total nitrogen applied did not have the chance to demonstrate that their nitrogen applications, and risk to groundwater, are low. To better understand the extent of the nitrogen problem in the region, staff proposes to require information from all growers who grow crops considered to be high risk.

Proposed Ag Order 3.0 exempts growers with tier 1 ranches (small acreage) from the total nitrogen applied requirement at this time to ensure the regulated community has the time necessary to prepare for this reporting. In future orders, we expect all growers will be required to report this information for all ranches.

Letter No.: 4
Page No.: page 2
Topic: TNA data inconsistencies

Comment: Groot 18
Many Tier 2 farms will now be required to report annually their total nitrogen applied (TNA), which will lead to inconsistencies in the database and make trending comparisons difficult. Will more information lead to a better data set on groundwater risks?

Response:
Please see response to comment Reck 6. Attaining water quality objectives in receiving waters will likely take decades. Tracking nitrogen applied to the surface, e.g., total nitrogen applied in fertilizers and amendments, acts as implementation assessment while quantitative response in receiving waters, such as groundwater and surface water, lag far behind. In short, collection of total nitrogen applied data is needed to measure progress towards achieving water quality objectives, which is likely to be slow given the decades of nitrogen loading.

When looking at trends in nitrogen applications, there are two basic populations of reporting time periods that can be examined: the entire reporting population for each year or only the subset of ranches that have submitted reports for multiple years. Within each of those two basic populations, values and trends can be further examined by looking at the applications made to specific crops in specific areas of the region. Increasing the number of ranches reporting total nitrogen applied will not lead to an inconsistent database because staff is able to differentiate between ranches that have reported once, twice, three times, and so on, and is therefore able to account for these changing populations when performing analyses.

Letter No.: 4
Page No.: page 2
Topic: Baseline data

Comment: Groot 19
What will happen when the baseline for total nitrogen applied becomes the data collected in 2018 or 2019 when years of reduced application rates have already been in effect?

Our overall concern is the baseline that will be drawn at some point after all this additional data is collected.

Response:
Comment noted. The Central Coast Water Board must consider the potential of loading nitrogen to receiving waters and minimize this potential as much as possible. This is a goal of the Irrigated Lands Regulatory Program. The goal does not change with the baseline (starting point). The more data available to staff, the more accurately staff will ultimately be able to draw conclusions about the impacts of excess nitrogen loading.

At this time, science-based nitrogen uptake ranges are available for only some of the crops grown; more work needs to be done in this area as we move forward. Some scientific information is also available about nitrogen removal, such as removal at harvest, which can also be used to assess nitrogen potentially available for loading to surface waters. These and other factors could help the board, growers, and interested persons develop goals.

Letter No.: 4
Page No.: page 2
Topic: Total Nitrogen Applied

Comment: Groot 20
We see reductions in nitrogen use as finite…how will farm operators gain credit for the reductions already made prior to the larger data set being gathered through additional TNA reporting?

Response:

Refer to response to comment Groot 19.
Additionally, staff will prioritize follow-up efforts where the threat to water quality is the greatest. Nitrogen application requirements are based on crop uptake ability, available management measures, and impacts to water quality. A grower will be in compliance if the grower is implementing appropriate measures to minimize excess nitrogen application. There is no "credit" for reducing historic over-application, nor will growers with historically good nutrient management practices be penalized by having to reduce nitrogen application rates more than is reasonable.

Letter No.: 4
Page No.: page 2
Topic: Total Nitrogen Applied

Comment: Groot 21
Just how will all the variables for nitrogen reporting be taken into account when determining any nitrogen application standards or applied/removed ratios? With variations of soil types, planting timing and seasons, crop varieties, planting depths, crop rotation cycles, and weather attributes so varied, is it even possible to determine what is to be considered an over application of nitrogen?

Response:
Comment noted. Staff understands the varying field conditions playing a role in nitrogen efficiency. Please note that proposed Ag Order 3.0 does not require reporting of applied/removed ratios. Refer also to response to comment Groot 19, Zelinsky 6, 8, 10.

Letter No.: 4
Page No.: page 2
Topic: Total Nitrogen Applied

Comment: Groot 22
Note that many of these farm operators have not reported their total nitrogen applied in prior annual compliance cycles, so there may be gross irregularities in the information reported.

Response:
Staff is aware of this upcoming challenge. The potential irregularities will be similar to the first year of nitrogen reporting, and expect to make considerable efforts in assisting the newly-required growers. Staff is also encouraged to see cooperative groups, such as the Central Coast Groundwater Coalition, stepping up to provide total nitrogen applied reporting assistance to their member growers.

Letter No.: 4
Page No.: page 2
Topic: Total Nitrogen Applied

Comment: Groot 23
With so much uncertainty over who and how the data will be reported, it may be best to delay additional requirements in this area until the next Conditional Waiver process is negotiated and put into place in 2020 or later.

Response:

Please also see response to comment sSutton 11, Groot 18. Staff has found that indeed there is a learning curve to nitrogen reporting and appreciates this fact. However, nitrogen tracking and reporting is a necessary step in solving the water quality problems associated with nitrate groundwater contamination; it is also a necessary component of nutrient management. The Expert Panel Report and XXX Reports make clear that nitrogen tracking will be necessary for the foreseeable future. Therefore, growers should begin the tracking and reporting practices for nitrate now. Staff's experience is that within a year or two, growers are able to efficiently track and report nitrogen applied.

Letter No.: 14
Page No.: Appendix (master's thesis), p 22
Topic: Total Nitrogen Applied
Notes: Comment repeated in email

Comment: Smith 5
In order to address agricultural pollution and protect communities the new 2017 Ag Order must include a "nitrogen tax" by all agricultural producers that would be used toward remediation programs, implemented by the Central Coast Water Board. This fund would finance community drinking water filtration systems, regular water quality testing, and safe potable water replacements for impacted communities.

Response:
The Central Coast Regional Water Quality Control Board does not have the authority to levy taxes on nitrogen or other agricultural products.

Letter No.: 6
Page No.: page 5
Topic: Total Nitrogen Applied

Comment: Fisher 14
Under these requirements, prioritization has been removed and more farms, regardless of their risk to water quality, will be required to report their total nitrogen applied. By expanding the total nitrogen applied requirements to apply to farms that have already demonstrated that their risk to water impairments is low and by eliminating prioritization and the use of risk units, the Ag Order 3.0's total nitrogen applied reporting requirements do not commensurate with potential risk

Response:
Refer to responses to comments Sutton 11 and Groot 17.

Letter No.: 6
Page No.: page 5
Topic: Total Nitrogen Applied

Comment: Fisher 15
Additionally, farms must track total nitrogen applied from January 1 through December 31 of each year. Data collected in 2017 will be reported in the first report, due March 1, 2018. However, given that the Ag Order 3.0 is not scheduled to be adopted until March 2017, there will be gaps in data collection…some growers have not been previously required to track this information and thus will not have data for a portion of the 2017 reporting period. The Ag Order

3.0 should not include retroactive reporting requirements requiring growers to report from periods prior to the adoption of the Order.

Response:
Refer to response to comment Groot 22.

Additionally, the proposed TNA reporting requirement is clear:
1. By March 1, 2018, and by March 1 annually thereafter, Tier 3 Dischargers growing any crop with a high potential to discharge nitrogen to groundwater must record and report total nitrogen applied for each specific crop that was irrigated and grown for commercial purposes on that farm/ranch during the preceding calendar year (January through December).

Staff encourages our partners, grower organizations, and professionals to make sure their members and clients are aware of the timing and other reporting information requirements.

Letter No.: 6
Page No.: page 5
Topic: Total Nitrogen Applied

Comment: Fisher 16
In other words, given that reductions in application rates are finite, using 2018 or 2019 data as a baseline is inappropriate and ignores years of improvements. Further, how will the Ag Order 3.0 account for the substantial improvements and reductions over the past thirteen or more years?

Response:
Refer to response to comment Groot 19.

Letter No.: 6
Page No.: page 5-6
Topic: Total Nitrogen Applied

Comment: Fisher 17
In addition to data collected now not properly reflecting past improvements and management practices to maintain and improve water quality, how will the data reflect anomalies? Crop seasons and the types of crops grown on the Central Coast are unique, given the wide variety of soil types, planting timing and seasons, crop varieties, planting depths, crop rotation cycles, and weather attributes. With all of these variations, Farm Bureau questions how the Central Coast Regional Board will utilize total nitrogen applied data for regulatory purposes.

Response:
Refer to response to comment Groot 18, 19.

Letter No.: 6
Page No.: page 5 (footnote)
Topic: Total Nitrogen Applied

Comment: Fisher 18
In addition, the total nitrogen applied requirements contradict the State Water Board's WQ Order 2013-0101 as well as the conclusions within the Ag Expert Panel's recommendations.

Response:

See response to comments Sutton 11, Wineman 12 and Wineman 13. Staff disagrees. The total nitrogen applied requirement is consistent with the Expert Panel Report (See Sutton 11). See also Wineman 11, 12.

Letter No.: 11
Page No.: page 2
Topic: Total Nitrogen Applied

Comment: Taylor-Silva 28
This removal of risk-method calculations is contrary to what was adopted by the State Water Board in Order WQ 2013-0101, and expands the number of individuals who will now be required to report Total Nitrogen Applied.

Response:
Refer to responses to Sutton 11, Wineman 12 and 13, Fisher 18, Groot 17 and 23.

Letter No.: 11
Page No.: page 2
Topic: Total Nitrogen Applied

Comment: Taylor-Silva 29
It further eliminates explanatory language from the Draft MRPs, and requests information that is unrelated to the application of nitrogen fertilizers (e.g., Whether each specific crop was grown organically or conventionally). The explanatory language is necessary as it helps to alleviate confusion regarding Total Nitrogen Applied Reporting, and was added by the State Water Board to avoid confusion. (Order WQ 2013-0101, pp, 44-48.)

Response:
See also response to comments Wineman 12 and 13. The language that has been removed was related to the risk determinations methods that are no longer proposed to be included in Ag Order 3.0.

Regarding the additional information requested as part of the total nitrogen applied reporting, it is necessary for staff to be able to make comparisons to determine reasonable and/or excessive applications given the different crops grown, soil type, operation facilities, and potential discharges of nitrogen to surface and groundwater.

Letter No.: 11
Page No.: page 2-3
Topic: Total Nitrogen Applied

Comment: Taylor-Silva 30
Further, the information being requested for Total Nitrogen Applied reporting in the Draft Order may be different than the information that the State Water Board determines is necessary when it finally adopts a precedential order in the Eastern San Joaquin matter. Specifically, the Draft East San Joaquin Order is intended to implement recommendations from…the Agricultural Expert Panel...the Expert Panel…recommended…a multi-year ratio of nitrogen applied to the field to nitrogen removed from the field…The Draft East San Joaquin Order recommends the use of nitrogen removed versus nitrogen uptake/consumption because it is based on actual measurement versus an estimate. To implement reporting of this metric, the [ESJ Draft Order]

proposes to require submittal of an irrigation and nitrogen management plan summary report that requests streamlined data and information that is different than the Total Nitrogen Applied Reporting proposed in the Draft Order.

[S]hould the State Water Board adopt a precedential order…with specific nitrogen reporting requirements and direction, different data and information collected by the Central Coast Water Board would then be meaningless…the Central Coast Water Board should either eliminate collection of Total Nitrogen Applied data for the immediate future, or at the very least, maintain the language exactly as it currently exists without making the proposed changes.

Response:
See response to comment Groot 23, Reck 7. Proposed Ag Order 3.0 includes requirements necessary to allow the Central Coast Water Board to begin assessing application practices and implement guidance that is currently available. Staff must incorporate the data and information learned during the implementation of Ag Order 2.0 into Ag Order 3.0. Ag Order 3.0 is a temporary, interim order that will be replaced by what is expected to be a more permanent order after the State Water Board has issued the Eastern San Joaquin order.

Letter No.: 16
Page No.: page 2
Topic: Total Nitrogen Applied

Comment: Livengood 6
Expansion of Total Nitrogen Applied (TNA) Reporting. Ag Order 3.0 greatly expands TNA reporting -in turn expanding data which is publicly available in our Region. For growers in tier I and tier II who grow any crop type with high potential to discharge nitrogen to groundwater, they will now have to track and report TNA for all crops on their farm/ranch, regardless of their demonstrated potential to discharge nitrogen.

Response:
Ag Order 3.0 is not requiring the reporting of total nitrogen applied by tier 1 ranches. It only expands on the reporting to a larger subset of tier 2 and tier 3 ranches.

Refer to response to Sutton 11, Groot 18 and Groot 23.

Letter No.: 16
Page No.: page 3
Topic: Total Nitrogen Applied

Comment: Livengood 7
Expansion of Total Nitrogen Applied (TNA) Reporting. Instead of expanding TNA, we ask that the Board reevaluate the TNA requirement and consider alternatives such as scientific evidence of total nitrogen fate in crops such as strawberry in place of simple TNA reporting.

Response:
Refer to response to Sutton 11, Groot 19, and Groot 23. Total nitrogen applied reporting as required in Ag Order 3.0 is necessary to begin the process of correlating management practices with nitrogen impacts to receiving waters.

Letter No.: 11

Page No.: page 11
Topic: Total Nitrogen Applied

Comment: Taylor-Silva 31
…Grower-Shipper is also concerned that the newly proposed Total Nitrogen Applied reporting requirement as stated in Condition 68 means that such reporting is being expanded to include crops not considered to be those with a high potential to discharge nitrogen, but that happen to be grown on the same farm or ranch as one that is considered to be a high nitrogen potential discharge crop. In other words, a farm/ranch that grows a crop listed as having a high potential to discharge nitrogen and a crop not similarly listed will require Total Nitrogen Applied for both crops, even though the latter is not otherwise identified as a high risk crop. The Draft Order provides no justification for this expansion of the Total Nitrogen Applied reporting.

Response:
See response to comment Sutton 11. Based on total nitrogen applied information reported during the implementation of Ag Order 2.0, it is apparent that crop risk is not necessarily indicative of the amount of nitrogen that some growers actually apply (or over-apply). However, as noted in response to comment Sutton 11, the crop risk ratings were developed by the University of California and are a tool that staff is proposing to use to prioritize what subset of ranches should report total nitrogen applied in Ag Order 3.0, with the expectation that the requirement will be further expanded in the future, per recommendations of the Agricultural Expert Panel. The inclusion of the reporting of nitrogen applied to non-high risk crops grown on a ranch that also grows high risk crops is consistent with the Agricultural Expert Panel's recommendation that the requirement to track and report nitrogen information by applied universally and also provides consistency in what was required to be included in total nitrogen applied reports during Ag Order 2.0 for a high risk ranch or risk unit; that is, for a given ranch or portion of the ranch that was determined to be high risk for loading nitrate to groundwater, all crops grown on that land, regardless of the risk rating of each individual crop, were included in the reporting.

Letter No.: 8
Page No.: page 3-4
Topic: N in groundwater and pump and fertilize

Comment: Shimek 52
Nutrient balancing. The vast majority of water to irrigate Central Coast crops is pumped from groundwater. Decades of sampling have revealed that groundwater underlying irrigated agricultural lands is heavily polluted by agricultural fertilizers. While there are other sources of nitrogen and nitrates, loading studies show that the vast majority (see Harter Report suggesting over 90%) of the nitrogen pollution is coming from irrigated agriculture. Research conducted by Dr. Michael Cahn and others has documented the over-application of fertilizers to Salinas Valley crops and the ability of crops to utilize nitrogen from groundwater.

Despite the availability of nitrogen in groundwater, growers continue to over-apply fertilizers and the over-application leads to compounded contamination.

Response:
See response to comment Groot 19, Shimek 5. Proposed Ag Order 3.0 expands the reporting of the nitrogen application and maintains the requirement to calculate and estimate the nitrogen applied with irrigation water.

Letter No.: 8
Page No.: page 4
Topic: N in groundwater and pump and fertilize

Comment: Shimek 53
The existing Ag Order (2012) required a subset of Tier 2 and 3 to report applied nitrogen beginning in October 2014, consequently, staff had specific field level data of over-application 30 months before the expiration of the current Order and with ample time to create regulation around the over-application. But it wasn't until March of 2016, 18 months later, but still one year in advance of the expiration of the Order, that staff provided the Board with two years of data.

Response:
The first total nitrogen applied reports were received in October 2014. Staff spent many months going back and forth with growers to correct errors. Because this was a new reporting requirement, there was a significant learning curve with growers in nitrate tracking and reporting in a manner that allowed water Board staff to subsequently evaluate meaningful data. Additionally, many growers submitted their reports late, which took additional time to address. Staff received a Public Records Act request for the total nitrogen applied data, which led to claims that the information contained in the total nitrogen applied report was trade secret. Nearly 50% of the growers initially claimed their TNA reports contained trade secret information. This effort took months to address. Once staff had worked out the reporting errors and had a body of data, staff performed an analysis and found the results surprising, i.e., that a significant mass of nitrogen was left in the field and potentially available for loading to receiving waters. Given the findings and, at this point, the fact that the next reporting period was near, staff sought to gather the next round of nitrogen reporting information to confirm the 2014 findings. Staff needed to confirm draft findings to be certain they were accurate, so sought confirmation from scientists and experts in the field. Once the draft findings were confirmed, staff presented the findings to the public.

Letter No.: 8
Page No.: page 4
Topic: N in groundwater and pump and fertilize

Comment: Shimek 55
Despite having firsthand knowledge of over-application, the Draft Order contains no requirement to balance nitrogen application with crop need all the while thousands of rural residents are drinking nitrate contaminated water, freshwater streams are choked by algal blooms, and (Federal Endangered Species Act listed as threatened) sea otters are dying from Microcystis blooms stimulated by agricultural and other nutrients.

Response:
See response to comment Reck 7.

Letter No.: 8
Page No.: page 4-5
Topic: N budget

Comment: Shimek 56

A new Ag Order should include a requirement to balance nitrogen applied with crop nitrogen need. Application beyond the published range should be subject to enforcement. Admittedly, there are many crops with no published range of the crop nitrogen requirement, but it has been estimated that published values are available for crops comprising the clear majority of acreage. For the crops with no published range of crop nitrogen need, reporting requirements will quickly establish a normal range and statistical analysis can identify outliers.

Response:
Refer to responses to Kane 2, Shimek 55 and Groot 23.

Letter No.: 7
Page No.: page 2
Topic: Expansion of TNA- keep risk determination

Comment: Wineman 12
Removal of "Risk Units" contradicts State Water Board, Ag Expert Panel, and results in additional expansion of TNA requirement.

We oppose the significant expansion of the Total Nitrogen Applied reporting to all Tier 2 and 3 farms/ranches with crop types with high potential to discharge nitrogen to groundwater and ask that the 2012 Nitrate Loading Risk Calculation, Risk Unit language, and risk-based reporting requirements remain intact.

The expansion contradicts the State Water Board's contemplation of the nutrient requirements applying only to farms/ranches that calculate high nitrate loading risk under both methods. We emphasize that there is a tremendous distinction between on-farm use of information to improve management practices and regulatory reporting requirements that are subject to public disclosure.
State Order WQ 2013-0101: "We believe that the dischargers should have the opportunity to estimate their risk under either method… In effect, the discharger must submit to the nutrient management requirements of the Agricultural Order only if the discharger measures as high risk under both methods – a result that reduces the chances that a farm that is actually low risk will be categorized as high risk under the Agricultural Order."

Action: 2012 Nitrate Loading Risk Calculation and Risk Unit language for Tier 2 and 3 ranches must remain intact

Action: TNA reporting must remain risk-based and applicable only to high-risk units on Tier 2 and 3 ranches

Response:
Refer to responses to Sutton 11, Groot 17, and Zelinski 6. State Board Order No. WQ 2013-0101 (Modified Order), which is currently stayed pending appeal, concluded that both the UCANR and the Central Coast Water Board methods of determining risk were imprecise, but found no reason to replace them with a different, equally imperfect risk determination. Contrary to the commenter's implication, the State Water Board did not address either method. In fact, the State Water Board convened the Expert Panel specifically to, among other things, provide recommendations to guide the Water Boards' further actions with respect to nitrate risk management determinations. (*See, e.g.,* WQ 2013-0101, p. 43.) The Expert Panel recommended against using any risk-based determinations except to prioritize initial actions. In addition, Order WQ 2013-0101 was not informed by the information gathered during

implementation of Ag Order 2.0, such as total nitrogen applied reporting and groundwater monitoring results, or by other information such as the Expert Panel Report. The expanded TNA requirements of proposed Ag Order 3.0 are, in part, a response to new data and information gathered during implementation of Ag Order 2.0.

Letter No.: 7
Page No.: page 2
Topic: Expansion of TNA- contradicts expert panel

Comment: Wineman 13
Removal of "Risk Units" contradicts State Water Board, Ag Expert Panel, and results in additional expansion of TNA requirement. Individual TNA reporting contradicts Ag Expert Panel's Recommended Regulatory Program.

The expansion also contradicts the Ag Expert Panel's recommendations that nitrogen reporting be achieved through a coalition model. Attachment A references the Agricultural Expert Panel convened by the State Water Board. However, Attachment A fails to include that the Agricultural Expert Panel's #1 Recommendation is the "Establishment of coalitions to serve as the intermediate body between farmers and the Regional Boards." Furthermore, the Panel's final recommendation is the "Use of multi-year reported values and monitored trends by the coalitions to inform the agricultural community of progress, to improve understanding of what is reasonable to attain and expect, and to sharpen improvement efforts." The final report goes on to state more specifically "The Panel emphasizes that reporting by growers and any data collection requirements should be coordinated by third-party coalitions where feasible, rather than having farmers report directly to the Regional Water Boards."

Response:
Refer to responses to Zelinski 6 and Wineman 12.

Expert Panel recommendations are not binding. The report is a technical report by experts in their relative areas of study and was subject to extensive public input. As such, the Central Coast Water Board considers it along with other evidence, including data, information, and scientific studies or recommendations. The State Water Board is currently developing a water quality order addressing the Eastern San Joaquin WDRs. That order is expected to address the Expert Panel recommendations. Some aspects of the order will be precedential in other future regional water board actions. The Central Coast Water Board will incorporate precedential aspects of the ESJ final order in a future action, which could include a role for third-party coalitions.

Staff supports third-party coalitions' roles in helping growers comply with requirements, including the total nitrogen applied reporting requirement. However, total nitrogen applied reporting is a necessary component of Ag Order 3.0 pursuant to Water Code sections 13269. While staff welcomes any assistance the coalitions may provide in coordinating and summarizing information, the underlying data must be submitted to the Water Board and cannot be retained solely by a third party.

Letter No.: 7
Page No.: page 2
Topic: Expansion of TNA

Comment: Wineman 14
Moreover, according to Staff outreach on the draft Order, **the elimination of risk units would further expand the TNA requirement by implicating crops that are not high risk if they are grown on the same ranch.** For example, if a ranch grows both strawberries and raspberries, Staff has indicated that TNA reporting would now be required for both the strawberries and raspberries; the raspberries could no longer be considered a separate, lower-risk unit that may not be subject to TNA reporting. The Ag Expert Panel also contemplated a reporting unit based on crop type or other growing characteristics. **The elimination of risk units results in a further expansion of the TNA reporting requirement that is not commensurate with potential risk.**

Response:
Refer to response to Mercer 19, Sutton 11, and Taylor-Siva 31.

Letter No.: 7
Page No.: page 3
Topic: Expansion of TNA

Comment: Wineman 15
Finally, the current TNA reporting system has significant shortcomings and is in dire need of refinement, rather than expansion. We have previously commented on the need for TNA reporting to be on a calendar year basis and per physical acre of a farm/ranch. More specifically, Staff outreach has communicated the intention that unharvested crops would still need to be carried over to the following reporting year. This will create greater confusion and potential for inaccuracies in reported information. We reiterate that:

1. TNA should have an annual reporting timeframe (January 1-December 31) with a 90 day processing period (April 1) before reporting is due.

Response:
Proposed Ag Order 3.0 total nitrogen applied requirements include reporting the total nitrogen applied to a specific crop from the beginning of that crop's lifecycle to final harvest. The commenter suggests that the total nitrogen applied be reported on an annual calendar year basis. This would inevitably result in reporting a partial amount of the total nitrogen applied to a crop, because some crops would be growing before the reporting calendar year, and/or not yet be harvested in the reporting calendar year.

The board needs the total nitrogen applied used to grow a crop from beginning to end to compare the amount of nitrogen applied to the typical nitrogen need for that crop. Additionally, nutrient management aimed at maximizing efficiency and minimizing the potential for nitrogen loss to receiving waters warrants the tracking of nitrogen applied by crop, not by calendar year.

Also refer to response to comment Wineman 16.

Letter No.: 7
Page No.: page 3
Topic: Expansion of TNA

Comment: Wineman 16
2. TNA should be on the basis of **nitrogen APPLIED per acre** during the reporting timeframe, **regardless of where the crop is in the growing cycle (still growing or harvested**). This will

produce the **same result** over an extended period, will be **easier for growers to report**, and will result in **better and more consistent information** for the Water Board.

Without addressing the unharvested/harvested issue, the change in annual reporting timeframe will not improve the accuracy or ease of reporting information and might actually be worse due to holiday conflicts, tax reporting deadlines, and travel for growing commitments outside of Region 3.

Response:
See response to comment Wineman 15. Staff proposes requiring the reporting of the total amount of nitrogen applied to an entire crop growing cycle because that will allow both the grower and the Water Board to determine which growers are over-applying and need assistance in reducing their over-applications. To be able to make this determination, growers and staff need to compare the applications to crop-specific information, such as nitrogen taken up or removed when the crops are harvested. This information is crop specific, so the nitrogen application information must also be crop specific, rather than acre specific.

Letter No.: 7
Page No.: page 3
Topic: Expansion of TNA

Comment: Wineman 17
We understand from Staff outreach that the current intention is to retroactively require TNA reporting for all applicable Tier 2 and 3 growers starting January 1, 2017 with reporting due March 1, 2018. We do not find it ethical to require reporting from periods prior to the adoption of the Order. As previously detailed, if the draft Order is adopted as proposed, the tremendous expansion in the reporting requirement will mean that a significant number of risk units, farms/ranches, and operations will be subject to the TNA reporting requirement for the first time. **We ask in good faith that reporting requirements be initiated only after the adoption of the final 2017 Order and allow adequate time for outreach on any new requirements.**

Action: TNA should have a January 1-December 31 time period with a 90 day processing period (April 1) before reporting is due. TNA should be on the basis of nitrogen APPLIED per acre during the reporting timeframe, regardless of whether the crop is still growing or harvested.

Response:
Refer to response to Fisher 15, Shimek 53, and Groot 23, Wineman 15 and 16. Staff acknowledges the comment implying that growers new to the total nitrogen applied requirement will have more difficulty for the first year of reporting. As was the case in 2014, when growers first were required to report total nitrogen applied; staff understands that there will be a steep learning curve for some growers, and staff will work with these growers at reporting time.

Letter No.: 7
Page No.: page 3
Topic: Expansion of TNA

Comment: Wineman 18

We disagree with expanding the Total Nitrogen Applied reporting on a Regional basis until there is greater certainty from actions that are expected to set precedent on a State level.

Response:
Refer to response to Sutton 11, Wineman 12, 13.

Letter No.: 7
Page No.: 6
Topic: 3.0 changes

Comment: Wineman 19
We adamantly oppose the imposition of a 30 day reporting timeframe for "all required reporting." This is particularly troublesome for Total Nitrogen Applied Reporting for mid-year terminations. We believe a standard, April 1 reporting timeline would be most conducive to compliance. The minimum time period should be 60 days from the date of termination. A 30 day timeframe would not allow adequate processing time for the TNA reporting. Obtaining and reviewing all records and entering them in the Water Board's reporting format is a tremendous undertaking. There is an important distinction between records used for internal management purposes, tax reporting purposes, and Water Board regulatory compliance reporting. A 60 day processing period is the minimum amount of time needed to address these logistical difficulties.

Action: Implement standard TNA reporting deadline of April 1

Response:
Comment noted. Please also see response to comment Groot 7. Staff has revised the draft language referred to by the commenter to 60 days, as recommended by the commenter.

Letter No.: 12
Page No.: 2
Topic: 3.0 substantive changes

Comment: Mercer 18
ALL Tier 2 and 3 growers with high nitrate demand crops must now report Total Nitrogen Applied. Previously, only growers with a high Nitrate Risk Determination were required to report Total Nitrogen Applied. This modification has increased the number of farms/ranches reporting from about 600 operations to between 1400-1800 operations.
….
1. Increased Total Nitrogen Application Reports will occur at a time when there are fewer, rather than more, qualified technical service providers to assist growers.

Response:
Refer to responses to comments Sutton 10, and 11 and Mercer 17.

Letter No.: 12
Page No.: 2-3
Topic: 3.0 Risk determination

Comment: Mercer 19
An arbitrary trigger for Total Nitrogen Reporting (e.g. the Nitrate Risk Determination) has been exchanged for another arbitrary measure, which is the

crop grown.
….
2. The Nitrate "Risk" Determination that was included in Ag Order 2.0 was never really about risk. If it had been, it would have considered the probabilities and magnitude of impact to water quality from a specific set of field conditions. Instead, the Nitrate Risk Determination was a determination of the worst-case scenario. It was an arbitrary calculation that was not based on agronomic principles. Now, this arbitrary calculation is being exchanged for another arbitrary, albeit simplified, measure. The proposed trigger will be the crop grown. Like the previous "Risk" determination, growers will not be provided with regulatory credit for incorporating mitigating factors into their operations. This over-simplification of highly complex systems is unfortunate in that is creates false perceptions about what growers are or are not doing or the actual field-level risk to water quality.

Response:
Refer to responses to comments Sutton 11, Groot 18, Wineman 12, and Taylor-Silva 31.

Total nitrogen applied reporting during Ag Order 2.0 showed that nitrogen application varies widely across ranches, even within the same crop. In some cases, reported nitrogen application far exceeds the crop's ability to uptake nitrogen, indicating a high potential for nitrogen remaining and available for leaching to groundwater and surface water. About 25% of the groundwater wells sampled during Ag Order 2.0 exceed the nitrate standard for drinking water. In short, expansion of the total nitrogen applied requirement to tier 2 and tier 3 ranches is justified, and a necessary step toward understanding and addressing the existing nitrate contamination in groundwater. High risk of loading nitrogen to groundwater is not necessarily confined to ranches that that were deemed "high risk" using the determination criteria included in Ag Order 2.0.

Letter No.: 12
Page No.: page 5 and 9
Topic: Findings in attachment A

Comment: Mercer 20
…. Water Board Staff has inserted a number of new findings in the Order so that the Ag Waiver 3.0 has evolved into more than a simple Waiver renewal process. Unfortunately, some of these new findings demonstrate contain prejudicial, assumptive or factual errors. Each of the newly proposed findings should be examined for accuracy and objectivity.

Finding 64: Total Nitrogen Applied Data. It should be noted that there is substantial doubt in the regulated community about the accuracy of the raw data used to produce the Total Nitrogen Applied data.

There is little confidence that the soil nitrate concentrations are representative of field level nitrate concentrations over time. For example, soil-sampling results are highly variable as there are an infinite number of combinations of row/bed arrangements, irrigation systems, cropping systems, fertilizer formulations, and soil types. Since nitrate tends to concentrate in the waterfront moving through the soil, the combination of the factors above would dictate where nitrate will be concentrated in any individual bed. A soil sample taken in the wrong place or at the wrong angle could completely overestimate or underestimate the amount of nitrate located in the waterfront. Therefore, if a grower does not obtain a sufficient number of core samples to create a composite soil sample for analysis, then, his sample will not be representative of the nitrate levels in his field.

Similarly, irrigation well nitrate sample only represents the nitrate in the well, which may or may not represent the nitrate in the associated aquifer. Therefore, soil nitrate concentrations and the well water nitrate concentrations represent only a snapshot in time and at a specific geographical or geological point. As stated above, nitrate is concentrated in the waterfront.

In the end, there is concern that Staff and Water Board Members are underestimating the complexity and difficulty of collecting reliable data. From a *field* research point of view, any analysis is only as good as the statistical confidence of any individual data point. A poor quality data point, then, compromises the comparability of the dataset and the final analysis and conclusions.

Response:
See response to comment Mercer 19, Groot 23, Taylor-Silva 16. Staff acknowledges the comment and complexities of nutrient management. Water Board staff has spent numerous hours communicating with individual growers in an effort to increase growers' understanding of the total nitrogen applied reporting requirement. Staff has provided detailed instructions as well. Growers new to nitrogen tracking in 2014 quickly learned how to more efficiently track nitrogen applied so they can now comply with the requirement with less effort (see response to Taylor-Silva comment 16).

Moreover, staff has incorporated many automatic data checks in the electronic total nitrogen applied reporting form to ensure the grower can double-check their information and make all necessary corrections prior to the submittal. Finally, staff evaluation of the data is based on the understanding that the nitrogen applied in irrigation water, as well as the nitrogen in the soil, are estimations.

Letter No.: 10
Page No.: page 9
Topic: Legal (Antidegradation)

Comment: Reck 3
The 2017 Draft Waiver adds a modest antidegradation analysis. The Regional Board acknowledges that the waiver is subject to the Antidegradation Policy, the existence of high quality surface and groundwater, and that agricultural discharges have degraded and threaten to degrade high quality waters within the Central Coast Region. (2017 Draft Waiver, Attachment A, pp. 46-47.) However, the Regional Board has failed to make the subsequent requisite findings, including the best practicable treatment or control and that the highest water quality consistent with maximum benefit to the people of the State will be maintained. Instead, the Regional Board improperly delays these findings until the next iteration of the agricultural waiver, presumably in 2020. (2017 Draft Waiver, Attachment A, pp. 47-49.)

The Antidegradation Policy provides no leeway to delay making the proscribed findings when a discharge is made to an existing high quality water. Here, it is clear from recent and existing scientific studies that nitrate pollution from agricultural discharges to groundwater threaten drinking water supplies and the health and safety of the people of the Central Coast who rely on them. The Regional Board must make the requisite findings at the time of authorizing these discharges to satisfy the Antidegradation Policy's requirements

Response: The proposed antidegradation findings have been revised. Regarding the Antidegradation Policy providing no leeway for delay, the nature of regulating discharges from irrigated agriculture is such that a phased approach is inevitable. We understand the seriousness of the water quality issues and that time is of the essence. For that reason, it is imperative that the board have a regulatory program in place while it develops long-term requirements.

Letter No.: 13
Page No.: page 4
Topic: Legal (Antidegredation)

Comment: Reck 4
In order to comply with the Porter-Cologne Act and the Nonpoint Source Policy, the new waiver should, at a minimum, include:

…

- An antidegradation analysis and full compliance with the state's Antidegradation Policy as interpreted in *Asociation de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Board* (2012) 210 Cal.App.4th 1255. The Draft Waiver delays any meaningful consideration until 2020. It is clear that water quality in the Central Coast is being degraded and yet the Draft Waiver proposes further delay. Full compliance includes:
  - Immediate application of Best Practicable Treatment and Control ("BPTC"). The current order improperly delays these requirements. (Draft Waiver, Attach. A, at ¶ 27 ("The Central Coast Water Board is in the process of evaluating BPTC methods.").) The Regional Board must impose BPTC, not simply consider its options.
  - Address the maximum benefit to the people of the state. The Draft Order suggests, rightly, that "the affected public should not generally have to incur costs to treat drinking water supplies." (Draft Waiver, Attach. A, ¶ 28.) But it provides no enforceable mechanism for how this will be achieved. Nor does it answer the question of whether allowing continued degradation, as this Draft Waiver will do, will contribute to the maximum benefit of the people.
  - Immediately implement adequate monitoring requirements. (See Draft Waiver, Attach. A, ¶ 29.) Every year where the Board delays adoption of robust monitoring is a year where the opportunity to collect data is lost.

Response:
Please see response to Comment Reck 3 and the revised antidegradation findings. In addition, as staff will continue to consider additional information on baseline water quality and management practices and State Board guidance, and develop recommendations for Ag Order 4.0.

Letter No.: 10
Page No.: page 6-8
Topic: Legal (Basin Plan)

Comment: Reck 7

The 2017 Draft Waiver is inconsistent with the Basin Plan because the proscribed measures are insufficient to meet the Basin Plan's water quality objectives. Specifically, the 2017 Draft Waiver directly conflicts with the Basin Plan's narrative prohibition on discharges to groundwater that could result in a ground water nitrate concentration above 45 mg/L. . . .

The vast majority of the [2017 Draft waiver] requirements are limited to monitoring and reporting. This is an essential first step to gaining greater understanding the problem of nitrate contamination, but itself is insufficient to ensure compliance with the Basin Plan. As per the [Agricultural] Expert Panel's findings, regulatory requirements should apply to all irrigated lands, regardless of whether it overlays a high nitrate aquifer or not.

Instead, the Regional Board must construct a regulatory program that will ensure consistency with the Basin Plan. This can best be accomplished through enforceable A/R ratio targets, nitrogen/water management plans, and other enforceable measures that apply to all farms/ranches—as recommended by the Expert Panel.

Response:
Please see responses to Reck 3 and Reck 4. Staff is evaluating additional requirements for Ag Order 4.0, including the types of requirements mentioned by the commenter. Staff is considering recommendations from the Expert Panel.

Neither the Basin Plan nor the Water Code requires dischargers to meet water quality objectives immediately or during the waiver term. The Nonpoint Source Policy (NPS Policy) guides how the Water Boards implement the requirements of the Water Code, including the requirement of section 13269 that the waiver be consistent with the Basin Plan. Thus, compliance with the Basin Plan must be evaluated by referencing the Nonpoint Source Policy. The Nonpoint Source Policy recognizes that compliance with water quality objectives will take a "significant amount of time." (NPS Policy at page 16.) The Basin Plan does not require compliance within the term of the Ag Order, nor is it what sound policy dictates. Achieving Basin Plan water quality objectives over time through management practice implementation is consistent with the Basin Plan's acknowledgement that effective management of nonpoint source requires "an explicit long-term commitment" by the State Board and regional boards. (Basin Plan page 4-6.)

Draft Ag Order 3.0 requires total nitrogen applied reporting for all tier 2 and tier 3 ranches that are growing crops that have a high potential to load nitrogen to groundwater, whether those ranches are overlaying an impacted groundwater basin or not. Staff estimates that over 85% of the tier 2 and tier 3 ranches will be required to submit nitrogen application information to comply with Ag Order 3.0. This requirement is indeed consistent with the Expert Panel's recommendation that all dischargers implement nitrogen management practices, requiring, where appropriate, that higher-risk dischargers implement practices first. Furthermore, staff will use this and other information to assess sources of nitrate impacts to groundwater. Where and when applicable, staff will require additional information from growers to assess loading and progress towards reducing groundwater nitrate loading. Ag Order 3.0 requires groundwater monitoring of nitrate concentration, including domestic wells used for drinking water purposes. Staff will use this, total nitrogen applied data, and other information to prioritize nitrate loading reduction efforts.

A/R ratio is the ratio of nitrogen applied to nitrogen removed. As stated above, Ag Order 3.0 requires nitrogen applied data be reported. The nitrogen removed portion of the ratio requires more research before it can be fully implemented because nitrogen removal rates are not yet

fully researched for all crops grown. Nevertheless, staff uses nitrogen uptake rates for crops, when known, to estimate the potential nitrogen left after harvest and therefore potentially available for loading to receiving waters; this is essentially the goal of the A/R ratio.

The A/R ratio is a tool the State Water Resources Control Board is considering in its response to petitions related to the Eastern San Joaquin (ESJ) Watershed Coalition waste discharge requirements.. The State Water Board has indicated that a final order resolving the petition, when adopted, should guide other regional water board's' efforts toward regulating agricultural discharges. Staff is recommending a "wait and see" approach towards the use of A/R ratios and will propose any necessary changes to Ag Order 3.0 after the State Water Board issues its order on the ESJ Petition.

Letter No.: 6
Page No.: page 3 (footnote)
Topic: Legal (Water Code section 13000)

Comment: Fisher 6
The Central Coast Regional Board relies upon a cost analysis conducted pursuant to CEQA requirements for the Ag Order 2.0, which did not include any of the new requirements or expanded requirements contained in the Proposed Ag Order 3.0. Without analyzing the new requirements proposed in Ag Order 3.0, the Ag Order 2.0 analysis could not and does not consider all of the demands being made on the waters and all of the "total values involved, beneficial and detrimental, economic and social, tangible and intangible." (Wat. Code, § 13000.) Therefore, any reliance on a previous economic analysis is inappropriate given the fundamental changes made to the Central Coast's irrigated lands regulatory program, and the Central Coast Regional Board should analyze, evaluate, and estimate all of the costs associated with the Proposed Ag Order 3.0's new regulatory requirements.

Response:

Section 13000 does not require an economic analysis. Staff has nevertheless included a discussion of costs in these responses to the extent that information is available, and has considered all cost information provided in public comments on the draft order and on the 2016 revisions to the MRPs. The difference in requirements between Ag Order 2.0 and Ag Order 3.0 (the replacement order) is largely the addition of enhanced monitoring and reporting requirements, e.g., total nitrogen applied monitoring, for a subset of tier 2 and tier 3 ranches that may grow high risk crops; this does not constitute a physical change to the environment.

Additionally, Ag Order 2.0 required a subset of tier 2 and tier 3 to assess whether total nitrogen applied reporting would be required; the requirement could change from year to year, *depending* on the activities of the ranch. Like Ag Order 2.0, Ag Order 3.0 requires total nitrogen applied reporting for a subset of tier 2 and tier 3 ranches, *depending* on the activities of the ranch. Growers with tier 2 and tier 3 ranches could chose not grow high risk crops during the implementation of Ag Order 3.0 and therefore not be required to submit total nitrogen applied information, thereby not affecting monitoring and reporting costs.

Letter No.: 10
Page No.: page 2-5
Topic: Legal (CEQA)

Comment: Reck 5
In order to satisfy the requirements of the California Environmental Quality Act ("CEQA") for the 2017 Draft Waiver, the Regional Board relies, exclusively, on the 2004 Negative Declaration and the 2012 Final SEIR. (2017 Draft Waiver, p. 11.) This is improper and in violation of CEQA, primarily, because new information of substantial importance is available today that was not available in 2012. . . .

The new information available today, which was not known and could not have been known with the exercise of reasonable diligence in 2012, demonstrates that there is a high likelihood that the 2017 Draft Waiver, if adopted as proposed, will lead to a violation of water quality standards, specifically, the standard that requires discharges to ground water to be free of nitrogenous compounds in quantities that could result in a ground water nitrate concentration above 45 mg/L. This new information is of substantial importance, evidenced, in part, by its publication or solicitation (and presentation to the State Legislature) by the SWRCB. Further, this new information shows that the project will have a significant effect on hydrology and water quality not discussed in the SEIR. These circumstances are sufficient to meet CEQA's standard for a subsequent EIR or, at minimum, a supplemental EIR. The Regional Board will be acting in violation of CEQA, if it proceeds to adopt the 2017 Draft Waiver without additional environmental review.

Response:
The 2004 negative declaration disclosed that groundwater was severely impacted by nitrate in many agricultural areas in the Central Coast Region. (Initial Study and Negative Declaration, pp. 10-11.) The negative declaration identified irrigation and nutrient management practices as ways to address these impacts. (*Id.*, pp. 29-30.) More information about previously disclosed impacts does not require a subsequent CEQA document. (*Silverado Modjeska Recreation and Parks Dist. v. County of Orange* (2011) 197 Cal.App.4th 282, 306-308.)

In addition, the issuance of Ag Waiver 3.0 is categorically exempt from CEQA because it merely continues Ag Order 2.0 with expanded monitoring requirements. (CEQA Guideline 15301.)

Letter No.: 4
Page No.: page 3
Topic: Legal (Water Code)

Comment: Groot 11
There are no findings that support the requirement for additional monitoring of insecticides, along with no findings that should an additional burden of compliance is reasonable compared to the benefit to be conferred. This is most likely a violation of California Water Code Section 13267 that requires benefit assessment of scientific detections of toxicants to water quality impairments against the burden of regulator impositions.

Response:
The commenter is likely referring to surface water monitoring and reporting program (MRP) requirements to sample neonicotinoid and pyrethroid pesticides. The Executive Officer amended MRPs for Ag Order 2.0 in August 2016 to include monitoring in 2017 of these two classes of pesticides. MRPs associated with Ag Order 3.0 incorporate the requirements for 2017 and include similar requirements for 2018. Staff added findings regarding neonicotinoids

and pyrethroids in Attachment A of Order No. R3-2017-0002. Please see findings beginning at finding 82 in Attachment A. Please also see findings 1 and 14 in Attachment A, finding that the requirements are reasonable, given the impact to water quality from agricultural discharges.

Letter No.: 6
Page No.: page 2-4
Topic: Legal (Water Code section 13000)

Comment: Fisher 7
In enacting the Porter-Cologne Water Quality Control Act, the Legislature laid out specific goals and objectives for the state's waters. The State Water Resources Control Board and Regional Water Boards must conform to all such statutory mandates, including the Legislature's objective…

> *The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.*

…requirements within the Proposed Ag Order 3.0 are not reasonable and do not properly consider all values involved, including economic and detrimental values to the agricultural community.

Response:
Water Code section 13000 is a general expression of legislative policy. It does not create affirmative requirements. (*City of Arcadia v. State Water Resources Control Bd.* (2010) 191 Cal.App.4th 156, 176, *as modified on denial of reh'g* (Jan. 20, 2011).) The legislative policy is implemented through the specific requirements of the Antidegradation Policy, Nonpoint Source Policy, Water Code section 13269 and other applicable requirements. See also response to comment Sutton 9, Fisher 8.

Letter No.: 6
Page No.: page 9-10
Topic: Legal (Water Code)

Comment: Fisher 8
Although the Regional Board has the authority, pursuant to Water Code section 13267, to require monitoring reports and technical reports, "the burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." (Wat. Code, § 13267(b)(1).) Additionally, the Regional Board *shall* provide each person "with a written explanation with regard to the need for the reports, and *shall* identify the evidence that supports requiring that person to provide the reports." (Ibid, emphasis added.)

Various monitoring reports and technical reports are referenced in the Proposed Ag Order 3.0 and accompanying appendices, however, no nexus as to the burden, costs, need, or benefits is found...Mere unsupported assertions that a need or nexus exists fail to validate a Water Code section 13267 request. Thus, as drafted, the provisions requiring monitoring reports and technical reports exceed, in whole or in part, the Regional Board's statutory authority.

Response:
Please see responses to comment Sutton 9, Fisher 8. Also, section 13267 requires the board to consider the need for the monitoring and reporting data and the costs or other burden to the discharger. It does not require a cost-benefit analysis or even an exacting estimate of costs. The board is mindful of the competitive nature of commercial agriculture and the need to avoid unnecessary costs.

Aquatic toxicity is present in agricultural watersheds in the Central Coast Region. Eight of nine monitoring sites in the Santa Maria River and Salinas River watersheds were toxic to test organisms in a 2014 study (see finding 85 in Attachment A to Order No. R3-2017-0002). The *Central Coast Cooperative Monitoring Program 2015 Annual Water Quality Report* provided information regarding aquatic toxicity. The report states that "The highest frequency of toxicity to invertebrate test species was observed in the Salinas and Santa Maria hydrologic units (HUs 309 and 312) in sediment toxicity tests, and to a slightly lesser extent in water column invertebrate toxicity tests. The South Coast and Pajaro regions also exhibited sediment toxicity in a substantial number of samples." Aquatic toxicity was observed in 24 samples from 12 monitoring sites in 2015 from the Salinas River watershed. In the same watershed in 2015, sediment toxicity was observed in 9 of 12 lower Salinas hydrologic unit sites. In the Santa Maria hydrologic unit, aquatic toxicity was observed in at least one sample from every monitoring site in 2015, and sediment toxicity was observed in all sediment samples.

Human health is threatened by excess nitrate in drinking water. As a result of Ag Order 2.0 groundwater monitoring requirements, staff found that 25 percent of the 1733 domestic wells sampled exceed the drinking water standard for nitrate. Water Code section 106.3 states that every human being has the right so safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitary purposes (see findings 12 and 43 of Attachment A to Order No. R3-2017-0002).

Letter No.: 10
Page No.: page 10-12
Topic: Legal (Nonpoint Source Policy)

Comment: Reck 6
The 2017 Draft Waiver also fails to satisfy the specific requirements of the Key Elements of the NPS Policy.

I. Key Element 3 . . .
[T]he 2017 Draft Waiver fails this element because it does not contain, "a specific time schedule" or "quantifiable milestones" that will ensure progress towards achieving water quality standards. Instead, the time schedules identified in Table 2, Table 3, and Table 4 of the waiver only ensure compliance with the waiver provisions, not compliance with water quality standards. (See 2017 Draft Waiver, p.39-42.) Further, these time schedules have simply been extended from what was required in the 2012 Waiver, which fails to demonstrate that they are no longer than what is "reasonably necessary" to achieve compliance with water quality standards.

The nitrate milestones cannot be said to be "quantifiable" or to ensure progress towards compliance with water quality standards. Instead, these milestones simply require a discharger to show "measurable progress towards water quality standards" for all dischargers and for Tier 3 dischargers to "achieve an annual reduction in nitrogen loading to groundwater." (2017 Draft

Waiver, p.41-42.) These milestones are too amorphous to satisfy the requirement of quantifiability.

II. Key Element 4 . . .
The 2017 Draft Waiver fails this element because the monitoring and reporting requirements apply to an insufficiently small subsection of dischargers and the "feedback mechanism" of monitoring and reporting is insufficient to determine compliance with the Basin Plan.

III. Key Element 5
The 2017 Draft Waiver does not make clear what, if any, consequences will be imposed for failure to comply with the management practices and monitoring/reporting requirements of the waiver. Instead, the waiver provides only a tentative and ambiguous enforcement policy. (2017 Draft Waiver, p. 4.) The 2017 Draft Waiver simply states, "if the discharger fails to address impacts to water quality by taking the actions required by this Order, including evaluating the effectiveness of their management practices and improving as needed, the discharger may then be subject to progressive enforcement and possible monetary liability." (Id. [emphasis added].) The Regional Board is also required to analyze other non-enforcement mechanisms that could be used to ensure compliance with water quality standards, such as rescinding the waiver, terminating its applicability to individual dischargers that fail to comply, or the possibility of issuing waste discharge requirements in place of the waiver and individualized enforcement actions. (See NPS Policy, p.5.) Similarly, these other mechanisms have not been sufficiently analyzed to satisfy this key element.

Response:
Please see responses to Reck 3, Reck 4, and Reck 7 regarding the Antidegradation Policy, as they overlap here. We agree that time schedules and/or quantifiable milestones are necessary to achieve water quality objectives and standards, and at the same time we acknowledge the extraordinary challenge in developing meaningful schedules or quantifiable milestones given the complexity of agricultural discharges over large geographical areas. Any new milestones, other than those dischargers must already meet, would likely fall due after the three-year term of Ag Order 3.0 and time schedules to attain compliance with water quality objectives will necessarily extend beyond three years. The short term of Ag Order 3.0, together with the milestones in the Order, are intended to provide the necessary temporal backstop to ensure that the program continues to progress toward attainment of water quality objectives through an iterative process, and is therefore consistent with Key Element 3. Imposing additional requirements during the short term of this order would be arbitrary based on the information currently available. For example, tier 1 ranches are not required to prepare TNA reports yet, but they are mostly vineyards and use far less nitrogen than tier 2 and 3 fruit and vegetable crops. Arbitrary requirements and milestones would not further the purpose of the Nonpoint Source Policy to ensure that nonpoint source programs actually achieve their objectives, and would not lead to attainment of water quality objectives any sooner.

This Order includes conditions to implement Key Elements 4 and 5, appropriate monitoring and enforceable consequences, respectively. Key Element 4 acknowledges the iterative nature of a nonpoint source program. Even where a program is "inadequate or ineffective," the discussion of Key Element 5 specifically references adoption of a revised program as an alternative to enforcement. (NPS Policy, p. 14.) Ag Order 1.0, Ag Order 2.0, proposed Ag Order 3.0 and Ag Order 4.0 represent an iterative or phased approach to implementing requirements and developing a program that achieves attainment of water quality objectives and standards.

Letter No.: 13
Page No.: page 2-3
Topic: Legal (Nonpoint Source Policy)

Comment: Kane 2
[T]he [Draft Order] must comply with the Nonpoint Source Policy, which requires, among other things, compliance with water quality objectives, specific time schedules with quantifiable milestones towards compliance, and feedback measures that allow the Regional Board as well as the public to assess and verify the program's effectiveness.

The Draft Waiver, like the 2012 Waiver, contains no numeric standards for discharge and relies entirely on management practices to improve water quality. But the Draft Waiver contains insufficient monitoring to allow the Board, the public, or growers themselves to identify which farms are contributing to pollution. And even were those operations identified, the Draft Waiver contains no specific standards tying "improved" management practices to reduced discharge. These failures were at the heart of the court's decision in Monterey Coastkeeper and they persist in the Draft Waiver. . . .

Key Element 3 of the Nonpoint Source Policy requires the Regional Board to set out a specific time schedule leading to compliance and to set quantifiable milestones measuring progress. "The time schedule may not be longer than that which is reasonably necessary to achieve … water quality objectives." The 2012 Waiver failed to set such a schedule and such milestones; nor does the proposed 2017 replacement. Instead of setting a time schedule leading towards compliance with water quality objectives, it defers any consideration of such a schedule to 2020 at the earliest. This delay violates the Nonpoint Source Policy.

Response:
Please see responses to comments Reck 3, Reck 4, Reck 6, and Reck 7.

Letter No.: 11
Page No.: page 2
Topic: Legal

Comment: Taylor-Silva 9
Specifically, the existing Ag Order is subject to an appeal pending…and the [State Water Board] has issued a Draft Order…Both of these pending actions will very likely impact the state's approach to regulating discharges from irrigated agriculture, including in the Central Coast region. As such, it is premature for the Central Coast Water Board to move forward with substantive changes, and the Draft Order should be revised to maintain the status quo.

Response:
Proposed Ag Order 3.0 includes reasonable changes compared to Ag Order 2.0. As discussed elsewhere in these responses, the limited changes keep in place the existing monitoring program, add some pesticide monitoring requirements while deleting others, provide minor non-substantive clarification and expand TNA reporting and groundwater monitoring. Nothing in the pending litigation or State Water Board order calls these changes into question.

Letter No.: 11
Page No.: page 2
Topic: Legal

Comment: Taylor-Silva 10
…[T]he State Water Board has indicated in its Draft East San Joaquin Order that the recommendations it makes in that order "are appropriate not only for the Eastern San Joaquin Agricultural General WDRs, but also for the next generation of regional water quality control board (regional water board) agricultural regulatory programs statewide, and our conclusions in this precedential order apply statewide (except where a regional water board expressly finds that there are truly significant site-specific conditions that render these requirements inappropriate)." Moving forward on the Draft Order in the way proposed prior to the State Water Board completing its review…could easily result in the Central Coast Ag Order being immediately in conflict with a State Water Board precedential decision, meaning the Central Coast Water Board would need to revise the Ag Order sooner than originally contemplated.

Response:
Staff disagrees. If the first draft is any indication, the final ESJ Order is unlikely to require less monitoring and reporting than Ag Order 3.0. The State Water Board can indicate in precedential orders how it expects regional water boards to implement any direction or precedential decision. Typically, this occurs when a regional water board issues the next iteration of the order for the program in question. In the meantime, the findings of Ag Order 3.0 provide adequate justification to continue the monitoring program. Water Code section 13269 and the Nonpoint Source Policy prohibit the board from renewing the waiver without monitoring requirements. The alternative to the staff proposal is not "no monitoring," but to allow the waiver to terminate. Issuing individual orders is not possible because it would divert limited staff resources and preclude the development of the long term program. The absence of a general order would subject all growers to penalties pursuant to Water Code sections 13261, subdivision (a) and 13265, subdivision (a). The proposed order seems like a far more reasonable solution, even if the final ESJ Order or the outcome of *Monterey Coastkeeper* ultimately accelerates the date of Ag Order 4.0.

Letter No.: 11
Page No.: page 6
Topic: Legal (Antidegradation)

Comment: Taylor-Silva 11
Newly proposed Finding 24 provides little detail with respect to an analysis of available data to determine if there are high-quality waters within the region. While Grower-Shipper agrees that an exhaustive analysis is not necessary or practical, the finding merely states that the Central Coast Water Board has "information in its records." Reference to "information in its records" in no way indicates whether review of data and information has actually occurred. Further, in administrative actions such as this, findings are necessary to bridge the analytical gap between the evidence in the record and the action being taken by the agency…Thus, findings must reflect data and information that is part of the administrative record for the action being taken…Further, the conclusion that there is "high-quality water" and thus the water "must be protected" is not the standard set by Resolution 68-16...Resolution 68-16 establishes the findings that a regional board needs to make if permitting degradation to a high-quality water. It

is not a zero-discharge policy, and does not mean that degradation of high-quality waters should not be allowed.

Response: Please see the antidegradation policy summary attachment to the staff report. Also, staff is not asserting that the Antidegradation Policy is a zero discharge policy or that no degradation is allowed. Please see antidegradation assessment attachment to staff report.

Letter No.: 11
Page No.: page 6
Topic: Legal (Antidegradation)

Comment: Taylor-Silva 12
Proposed Finding 25 is inappropriate for several reasons. First, the tone and tenor of Proposed Finding 25 is no more than an unsubstantiated allegation that attempts to blame agriculture for almost all degradation that has occurred historically in the Central Coast region. Second, newly proposed Finding 25…fails to "bridge the analytical gap" between actual evidence in the administrative record and the action being taken (AGUA, at 1281.) Merely claiming that the Central Coast Water Board has "information in its records" fails to meet the standard and purpose of findings, and specifically findings related to Resolution 68-16. Third, many of the statements in the newly proposed finding are speculative, and the finding fails to identify actual data and information that supports the overly broad, defamatory statements. For example, the first sentence alleges that "pollutant loading from agricultural discharges is a critical problem of severe magnitude in many areas of the Central Coast Region." No further information is provided that attempts to describe what is considered critical, or what constitutes severe magnitude. The last sentence of the finding, as with most of the finding, has no relevance to Resolution 68-16 and determinations associated with degradation to high-quality waters, and again, cites to no evidence or info1mation in the administrative record supporting the allegations contained within the statement.

Response: See response to comment Taylor-Silva 11. The record overwhelmingly substantiates severe degradation caused by discharges from irrigated agriculture, including degradation beyond water quality objectives and standards.

Letter No.: 11
Page No.: page 6-7
Topic: Legal (Antidegradation)

Comment: Taylor-Silva 13
With respect to newly proposed finding 26, Grower-Shipper does not dispute that Resolution 68-16 would apply, and that the Central Coast Water Board must make findings consistent with Resolution 68-16, as guided by its existing State Water Board precedential orders and applicable case law. However, to the extent that newly proposed finding 26 relies on speculative and overly-broad statements made in findings 24 and 25, Grower-Shipper takes issue with this finding.

Response: See responses to comment Taylor-Silva 11 and Taylor-Silva 12.

Letter No.: 11
Page No.: page 7
Topic: Legal (Antidegradation)

Comment: Taylor-Silva 14
Newly proposed finding 27 discusses what may constitute best practicable treatment or control (BPTC). Unfortunately, as provided, proposed finding 27 has uncoupled BPTC from a key component of Resolution 68-16, which is that the highest level of water quality will be maintained that is to the "maximum benefit to the people of the state." In other words, BPTC must be evaluated in light of maximum benefit. Further, proposed finding 27 also fails to consider the economic components of BPTC. (See AGUA, 1282, ["The costs of the treatment or control should also be considered, and would be considered in determining the 'maximum benefit to the people of the state.' (State Board Guidance Mem. (Feb.16, 1996) pp. 5-6.) Thus, the agency should consider current technologies and cost and may, where appropriate, consider federal requirements setting forth best available technology."].).) Lastly, the proposed finding states that "the Central Coast Water Board is in the process of evaluating BPTC methods." This statement implies that the current conditions in the Ag Order do not necessarily constitute BPTC. We disagree. The management practices, farm plans, monitoring and reporting requirements, and other elements of the existing Ag Order all collectively constitute BPTC, which is an evolving and iterative standard. Moreover, the Central Coast Water Board cannot legally defer finding BPTC to a future date, as such a finding must be made concurrently with its action here.

Response: Please see revised Antidegradation Policy findings 22-29 in Attachment A.

Letter No.: 11
Page No.: page 7
Topic: Legal (Antidegradation)

Comment: Taylor-Silva 15
Proposed finding 28 is one-sided and fails to include any mention of the importance of Central Coast agriculture to the region, the state and the nation. Maintaining the viability of Central Coast agriculture, and thus allowing degradation of high-quality waters, is extremely important and is to the maximum benefit to the people of the state. Not only does Central Coast agriculture provide valuable jobs for the region, it provides the state and nation with a stable and secure supply of fresh vegetables and fruits. The elimination of Central Coast agriculture would severely harm the region, and thus allowing degradation from agricultural discharges is to the maximum benefit to the people of the state.

Further, newly proposed finding 28 is inconsistent with State Board Guidance and adopted precedential orders in determining if an allowing an activity is to the maximum benefit to the people of the state. Such determinations are to be made as follows:

This determination is made on a case-by-case basis and is based on considerations of reasonableness under the circumstances at the site. Factors to be considered include (1) past, present, and probable beneficial uses of water (specified in Water Quality Control Plans); (2) economic and social costs, tangible and intangible, of the proposed discharge compared to the benefits, (3) environmental aspects of the proposed discharge; and (4) the implementation of feasible alternative treatment or control methods. With reference to economic costs, both costs to the discharger and the affected public must be considered.

Newly proposed finding 28 references only consideration of costs to the affected public and ignores costs to the discharger. Such a finding is improper, and is inconsistent with Resolution 68-16, and relevant implementing guidance.

Response: Please see revised Antidegradation Policy findings 22-29 in Attachment A. Proposed Ag Order is a reasonable next step to a phased approach towards compliance with the requirement to implement best practicable treatment and control of agricultural wastes, and it is in the interest to the people of the State, considering costs to implement the proposed requirements. (See response to Comment Taylor-Silva 16.)

Letter No.: 11
Page No.: page 7-8
Topic: Legal

Comment: Taylor-Silva 16
In August of 2011, Dr. Bradley Barbeau evaluated costs that the Ag Order would have on growers in the Central Coast region… Total costs to growers were estimated to be between $29,495,000 and $43,181,000 annually, with a broader negative impact to the region of $60 to $88 million annually… The cost estimates in Barbeau 2011 are still relevant, and should be considered by the Central Coast Water Board. Further, costs to the discharger should be further considered in light of new data and information that would exist after five years of implementation of the Ag Order.

Response:
The difference in requirements between the previous Ag Order 2.0 and Ag Order 3.0 is largely expanded monitoring and reporting. For example, Ag Order 3.0 potentially increases reporting requirements for a subset of growers with tier 2 and tier 3 ranches who must report total nitrogen applied information. Ag Order 2.0 required about 600 ranches to report total nitrogen applied information. Staff anticipates that this requirement could potentially be expanded to 1,700 ranches, depending on whether growers on these ranches continue to grow crops that pose a high risk of loading nitrogen to groundwater. The burden of reporting this information, including any additional cost that could be incurred, is reasonable given the level of water quality impacts being addressed by Ag Order 3.0, including widespread nitrate pollution. Discharger costs cannot justify discharges that violate water quality objectives. The incremental cost of expanded TNA reporting is reasonable in light of the severe impacts of the discharges and the fact that some facilities still discharge nitrate at levels that exceed groundwater objectives. TNA reporting also functions as a management practice by creating a feedback loop for growers to determine application rates that are more protective of water quality. Thus, is addition to providing important data to the board, TNA reporting should drive the iterative process of developing better nutrient management practices, as required by other provisions of the Order.

There is widespread nitrate pollution in surface and groundwater in agricultural watersheds in the Central Coast Region (see findings in ATT A); synthetic fertilizer is a significant source of nitrogen in these areas[3][4]. Ag Order 3.0 expands pesticide and toxicity monitoring in surface

[3] Harter, T. and Lund, Jay R. January 2012. Addressing Nitrate in California's Drinking Water: With a Focus on Tulare Lake Basin and Salinas Valley Groundwater. Center for Watershed Sciences, University of California, Davis Groundwater Nitrate Project, Implementation of Senate Bill X2 1.

waters, relative to surface water monitoring requirements in Ag Order 2.0, by adding more pesticide constituents, toxicity indicators, and frequency of sampling. The Cooperative Monitoring Program performs the required surface water monitoring on behalf of growers. The burden of this monitoring and reporting requirement, including any additional cost that could be incurred, is reasonable given the toxicity observed in agricultural watersheds in the Central Coast RegionCentral Coast Region (see findings 82-86 in ATT A of the Proposed Ag Order 3.0, R3-2017-0002).

As part of Ag Order 2.0 development and approval, staff estimated the cost and potential funding sources.[5]

The cost and potential funding sources associated with Ag Order 3.0 are largely similar to Ag Order 2.0, with the following considerations:

1. The routine laboratory budget for surface water monitoring during Ag Order 2.0 was about $390,000 per year. Ag Order 3.0 requires changes in surface water monitoring for pesticides and toxicity, relative to Ag Order 2.0. The required change will increase laboratory cost by 60-70% relative to the least expensive year's lab cost in Ag Order 2.0, and will increase the laboratory cost by about 9% relative to the most expensive year's lab cost in Ag Order 2.0. Ag Order 3.0 has a term of three years. The cooperative monitoring program invoices growers for monitoring costs, in part, based on enrolled acreage. There are currently only 400,000 acres enrolled in the Agricultural Order. Increases in laboratory cost will be shared by growers operating on these enrolled acres.
2.

Ag Order 3.0 requires growers that have a tier 2 or tier 3 ranch to report total nitrogen applied on all crops grown on the ranch, if there is a crop grown on that ranch that has a high potential of loading nitrogen to groundwater. Staff estimates an increase from 600 to about 1,700 ranches reporting. The cost of this reporting requirement include tracking nitrogen applied, such as nitrogen in synthetic fertilizers, compiling this information, and reporting it on a form that has been developed by staff. Therefore, the major cost is the number of hours devoted to completing the required forms. Staff has spoken with growers who routinely track nitrogen applied for each crop grown; these growers stated that they could complete the form in very little time. Other growers have indicated that they have not routinely tracked nitrogen applied, and completing the task could take several hours. Agricultural consultants have informed staff that it has taken them two full work days to complete the forms. Finally, growers and agricultural consultants have indicated that, since the total nitrogen applied requirement was implemented in Ag Order 2.0, that the learning curve has leveled, indicating that many growers are now more routinely tracking nitrogen applied so can complete the requirement more quickly than in the past. An agricultural consultant fulfilling the requirement for their clients indicates that for seasoned growers, the requirement takes as little as 45 minutes to an hour [personal communication with C. Rose]. Ag Order 3.0 potentially requires an additional 1,100 farms to report total nitrogen applied. However, many of these farms are operated by growers who have been required to complete the total nitrogen applied requirement on other farms, so are familiar with the requirement. Other farms may be operated by growers who have never completed the total nitrogen applied form. Therefore, any estimate of the increase in cost resulting from the

4 Tomich, T. Brodt, SS. e*t al*. 2016. The California Nitrogen Assessment, University of California Davis, Agricultural Sustainability Institute

[5] Central Coast Regional Water Quality Control Board. March 2011. Technical Memorandum: Cost Considerations Concerning Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands.

total nitrogen applied requirement for Ag Order 3.0 would be a rough estimate. That said, if it is assumed that the average grower will spend four hours on the requirement in the first year, and by the third year will spend one hour on the requirement, at $100/hour, the cost is $400 per ranch the first year, declining to $100 by the third year. Extended to all the newly required ranches, the total cost is $440,000 for the first year, and steadily declining to about $100,000 by the third year. It is important to bear in mind that the cost of nutrient management, which should include tracking fertilizer use, is accounted for in the cost estimate staff developed for Ag Order 2.0 (see footnote 3 above). Growers should already be managing nutrients to comply with other provisions of the order.

Letter No.: 11
Page No.: page 8
Topic: Legal (Antidegredation)

Comment: Taylor-Silva 17
Newly proposed finding 29 is patently false, in that nothing in Resolution 68-16 "requires monitoring and reporting to assess compliance with the policy that is adequate to detect degradation or prevent any degradation if it were to occur to high-quality waters." To the extent that the Central Coast Water Board is attempting to suggest that it is implementing direction as provided in AGUA, the statements made in this newly proposed finding are incorrect and misplaced. In AGUA, the Court of Appeals' comments were directly related to a finding in a Dairy General Order that claimed that the order did not allow degradation, and therefore Resolution 68-16 did not apply. In response to the regional board's findings in the AGUA case, the Court determined that to support such statements, the regional board would need an adequate monitoring program to show that no degradation was occurring. Ultimately, the Court found that the monitoring program was not sufficient, and that Resolution 68-16 applied.

The circumstances in the AGUA case are not the same as those with respect to the Draft Order and its associated attachments. The Central Coast Water Board is not attempting to state that the Draft Order does not allow degradation and thus Resolution 68-16 does not apply. Accordingly, this portion of the AGUA decision is not relevant here and should not be included in Draft Attachment A. Moreover, the State Water Board's Chief Counsel has issued a memorandum that clearly articulates the impact of the AGUA case to state and regional board actions, and with respect to monitoring specifically.

Accordingly, newly proposed finding 29 must be deleted in its entirety.

Response:
The finding has been revised to clarify that Resolution 68-16 does not explicitly require monitoring. The Chief Counsel interprets *AGUA* to require monitoring that is commensurate with the discharge and determined on a case-by-case basis.[6] State Water Board Order WQ 2015-0075 (*Los Angeles MS4 Permit*) is also instructive in conducting antidegradation analyses for orders regulating a large number of dischargers with diffuse discharge points over a large geographical area. The State Water Board discussion upholding the antidegradation findings as modified cites, among other things, the monitoring program required by the subject order. (*Id.*, p. 26.)

[6] Memorandum re: *Asociación de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Board*: *New Case Interpreting State Water Resources Control Board Resolution 68-16* (M. Lauffer, Feb. 22, 2013).

Letter No.: 11
Page No.: page 9
Topic: Legal (Antidegredation)

Comment: Taylor-Silva 18
Newly proposed finding 30 implies that the Central Coast Water Board's action being taken with respect to the Draft Order does not comply with Resolution 68-16, and that such compliance will occur in the future. As indicated above, the Central Coast Water Board does not have the luxury to defer compliance with Resolution 68-16. Moreover, the Central Coast Water Board has the ability to comply with Resolution 68-16 with the action being taken. As stated above, BPTC is an evolving and iterative process, meaning that conditions in the Ag Order as it currently exists can (and do) constitute BPTC as they are the best known controls at the current time. Further, the Central Coast Water Board is taking out of context the issue of monitoring and reporting as it applies to compliance with Resolution 68-16, and in reality, the Total Nitrogen Applied reporting (and the expansion thereof) does not provide the Central Coast Water Board with information to determine if agricultural activities are leading to degradation of high-quality waters. As discussed in the Agricultural Expert Panel report, merely reporting total nitrogen being applied does not indicate how much, if any, nitrogen will leach to groundwater. Other information regarding removal, precipitation, soil type, and other factors greatly impact the amount of nitrogen that theoretically may be available to leach to groundwater. Thus, the Central Coast Water Board's reference to and reliance on Total Nitrogen Applied reporting here in this finding is inappropriate and irrelevant. Further, this finding individually means that the action does not comply with Resolution 68-16, and thus adoption of the Draft Order cannot occur in its current configuration.

Response:
Staff disagrees. Proposed Ag Order 3.0 represents the next step in a phased approach to achieving protection of water quality objectives.

Dischargers must apply best practicable treatment or control to prevent unreasonable degradation of high quality waters and such degradation must be for the maximum benefit of the people of the State (if allowed by the Water Board in the first place). Implementation of best practicable treatment or control can be phased or based on a time schedule. Consistent with that approach, staff is proposing that the term of Ag Order 3.0 should be less than the five years allowed by law.

The commenter is highlighting a fundamental issue that must be addressed in Ag Order 4.0 and perhaps future orders—the attainment and protection of water quality objectives, which may involve additional requirements, schedules to achieve compliance, and verification monitoring. Staff will complete its analyses and make recommendations to the Water Board as soon as possible, even if that occurs in less than three years.

With respect to monitoring, the commenter seems to be highlighting the need for more specific monitoring that measures actual waste discharges rather than the use of proxies. Staff is considering various monitoring options as part of its analyses.

Letter No.: 11
Page No.: page 9
Topic: Legal (Antidegradation)

Comment: Taylor-Silva 19
[Findings 22 through 30] collectively show a clear bias against agriculture in the Central Coast, and violate a key tenet of the Porter Cologne, which is to regulate to the highest degree that is reasonable, considering all the demands being placed on the water .... (quote from Water Code section 13000). Moreover, the tone and tenor of these findings are setting up the Central Coast Water Board to take future action that would basically prohibit discharges from irrigated agriculture if irrigated agriculture could not prove that discharges comply with water quality standards. Considering the nature of agriculture, this is essentially an impossible task that sets up Central Coast agriculture for failure. Rather than adopting such findings now that show such a clear bias, and that are not reflective of state policy and the law, Grower-Shipper requests that the Central Coast Water Board delete all of the newly proposed findings 22 through 30 and revert to the findings in the existing Ag Order. Or, in the alternative, that it substantially revise newly proposed findings 22 through 30 to be objective and comply with Resolution 68-16.

Response: Please see response to Taylor-Silva 18. The findings reflect the fact that discharges from irrigated agriculture are causing degradation, and this degradation must be addressed.

Letter No.: 11
Page No.: page 9
Topic: Legal

Comment: Taylor-Silva 20
Revisions to finding 43 make unsupported statements that must be deleted. Specifically, language is being proposed that states as follows: "It is likely that many more private domestic wells that are not yet tested are impacted by nitrate. Furthermore, rural residents may be uninformed regarding their drinking water quality and exposed to unsafe drinking water." These statements are speculative, and are not supported by evidence in the record. Without such support, these are improper findings that must be deleted.

Response:
Comment noted. Staff reworded the finding to read: Therefore, more private wells may be impacted and users of these wells may be uninformed.

Letter No.: 11
Page No.: page 9-10
Topic: Legal

Comment: Taylor-Silva 21
The intent and purpose of newly proposed findings 62 through 64 are unclear as they merely cite statistics. To the extent that they are intended to support the expansion of Total Nitrogen Applied reporting requirements, Grower-Shipper finds them inappropriate and unnecessary for the same reasons discussed above with respect to Total Nitrogen Applied reporting. As indicated previously, Total Nitrogen Applied reporting should not be expanded at this time due to other pending processes, and at most, the current status quo should be retained.

Response:
See response to comment Sutton 11, Reck 7. Total nitrogen applied reporting (TNA) is a useful means of assessing progress and helping growers with compliance. It thus serves a function beyond mere data collection. The first TNA reports were due on October 1, 2014. Many growers had a difficult time complying with the requirement; staff made hundreds of calls to growers to assist them with their submittals in 2014. Consultants informed staff that growers had to use indirect means to estimate nitrogen applied, such as back calculating from fertilizer bills. In some cases, growers could not determine how much nitrogen was applied. Clearly, many growers had not been tracking nitrogen applied to specific crops, although this is a fundamental component in nutrient management. For the October 2015 TNA reporting period, growers had an easier time of complying with the requirement because they had learned how better to track nitrogen applied through the year.

Staff has shared TNA reporting results with consultants and agricultural educators. As a result, workshops and other educational opportunities have been provided to growers with the specific goal of reducing nitrogen application. For example, CDFA FREP is conducting workshops in the Central Coast Region to discuss nutrient management; this is a direct result of TNA reporting required in Ag Order 2.0.

Staff estimates that only 25% of the growers with tier 2 or tier 3 ranches were required to report TNA during Ag Order 2.0. The requirement is necessary to address nitrate pollution, which is widespread. The proposed Ag Order 3.0 expands the requirement to an estimated 85% of tier 2 and tier 3 ranches, all of who are growing crops with a high risk of loading nitrogen to groundwater. TNA reporting is consistent with key elements outlined in the Nonpoint Source Policy, and is an example of best practicable treatment or control for Antidegradation Policy compliance insofar as TNA tracking is an essential part of nutrient management (see finding 27 of Attachment A to Proposed Ag Order 3.0).

Letter No.: 11
Page No.: page 10
Topic: Legal

Comment: Taylor-Silva 22
Newly proposed findings 83 through 86 appear to be an effort to support changes that were made to the MRPs by the Executive Officer in August of 2016. First, post hoc rationalizations are improper, and changes to the MRPs in July needed to be supported by data and information at that time, not now, many months later. As Grower-Shipper and others indicated in our Petition to the State Water Board, the revisions to the MRPs in July were improper and contrary to state law. As adopted, the changes did not comply with Water Code section 13267, and the public was not afforded time to comment on the changes prior to being ordered by the Executive Officer. No explanation was provided for their adoption, and the Executive Officer made no findings in support of the changes. Findings in the Draft Order does not "fix" the improprieties associated with the Executive Officer's revisions that were made in August of 2016.

Response:
These are not post hoc rationalizations but findings to support the monitoring requirements of Ag Order 3.0 and associated MRPs, which supersede the 2016 revised MRPs. Even assuming the 2016 process was somehow flawed, which it was not, the issue is moot since the controlling order is now Ag Order 3.0 and the 2016 revised MRPs have no further effect.

Letter No.: 11
Page No.: page 10
Topic: Legal

Comment: Taylor-Silva 23
Second, the newly proposed findings [83 through 86] are being used to support toxicity testing requirements in the water column with test species such as *Hyalella* and *Chironomus*. However, the newly proposed findings fail to state that there are no approved EPA standard test methods for toxicity testing with these species. Generally, when conducting and using toxicity testing, it is imperative that (1) laboratory analyses is performed with high-quality quality control (QC) data; (2) analytical methods used provide a reporting limit lower than the toxicity effect threshold in the literature; and, (3) study that is used for the toxicity effect threshold in the literature has been well-vetted and is reproducible, including the toxicity test protocol if it is not a promulgated method. Nothing in the findings provides sufficient information to ensure that all of these elements are met with respect to the toxicity testing relied on in the findings. Further, to our knowledge, there are no well-vetted and reproducible toxicity effect thresholds for these test species at this time.

Until there are EPA-approved standard methods, it is inappropriate and improper to require toxicity testing with these species.

Response: See response to comment Mercer 16.

Letter No.: 11
Page No.: page 10
Topic: Legal

Comment: Taylor-Silva 24
Third, newly proposed finding 86 alleges exceedances of "an aquatic life benchmark." The finding does not identify the benchmark itself. Further, there are no Central Coast Water Board adopted numeric water quality objectives for the pesticides in question, or EPA 304(a) water quality criteria. Accordingly, it is improper to suggest that an exceedance of an aquatic life benchmark somehow violates a water quality standard. Also, the finding fails to identify the data set from which the percentages were based.

Response: See response to comment Mercer 16.

Letter No.: 11
Page No.: page 11
Topic: Legal

Comment: Taylor-Silva 25
The language of Condition 65 discusses the process which the Central Coast Water Board will use if a discharger asserts that all or a portion of a report is subject to exemption from public disclosure. The language of this Condition is somewhat confusing in that it mixes the terms "public disclosure" and "public inspection," and suggests that these two terms are interchangeable…As conveyed in a recent Monterey County Superior Court decision that is specific to the Central Coast Water Board, the terms "public disclosure" and "public inspection"

are different and have different legal obligations. In short, the Court found where there was no California Public Records Act request, Water Code section l 3267(b)(2) provides that the Central Coast Water Board cannot make available for public inspection the portion of any report that might disclose trade secrets or secret processes. Thus, unless there is a California Public Records Act request, and the Central Coast Water Board goes through the process to determine if a record is a public record pursuant to those statutory provisions, it cannot unilaterally make available for public inspection documents that have trade secret information. In light of this recent ruling, Condition 65 should be revised to reflect the differences between public disclosure under the Public Records Act, and public inspection under Water Code section 13267(b)(2).

Response:
Both the Public Records Act and section 13267(b)(2) use the term "public inspection." The terms "public inspection" and "public disclosure" are used synonymously in the court's ruling and the proposed Ag Order. The issue of when the board can disclose information subject to a trade secret claim absent a Public Records Act request was not before the court, and the decision did not address how section 13267(b)(2) should apply in that case. The decision does make clear, however, that the disclosure exception only applies to those portions of a report that might disclose trade secret information. By its own terms, that exception does not apply if a report will not in fact disclose trade secret information.

Regarding the process of disclosing reported information, the comment is accurate that when a grower claims to have reported trade secret information, staff engages in a process to determine whether the information is indeed trade secret and exempt from public disclosure. The grower who reported this information is informed of a Public Records Act request for such information, and is given an opportunity to respond before staff attorneys make a decision and before the information is released. Insofar as this is the process implemented in these cases, staff does not unilaterally make available for public inspection information claimed as trade secret.

Letter No.: 8
Page No.: page 1-2
Topic: Legal- public interest

Comment: Shimek 12
The fundamental threshold is whether the Draft Ag Order is in the public interest, and it is not…….We appreciate some of the minor changes that have been made to monitoring and reporting requirements but at the end of the day, the discharge requirements – the Order itself -- are what matters and, as written, the 2017 Draft Ag Order is a near verbatim copy of the 2012 Ag Order as modified by the State Water Resources Control Board, the same order that was found to be not in compliance with the laws, policies, doctrines and principals stated above and found by a trial court to not be in the public interest (the Coastkeeper et. al. opening brief and the trial court's ruling are attached as Attachment 1 and 2 respectively).

Response:
Regarding the *Monterey Coastkeeper* case, see below.

As stated in Proposed Ag Order 3.0 finding 21, the board's authority to order replacement water stems from Water Code section 13304 (cleanup and abatement). Replacement water orders are beyond the scope of this action.

Letter No.: 8
Page No.: page 2-3
Topic: Legal

Comment: Shimek 15
The Regional Board staff and Board have articulated two separate justifications for advancing an order that does little and is not in compliance with the law:
• Not enough time. Central Coast RWQCB staff brought forward a timeline to create a new Ag Order at the January 30, 2015 Board meeting ….. Staff also noted that there were several outstanding issues including the Expert Panel recommendations, East San Joaquin Ag Order petitions, and the Coastkeeper et. al. civil case that could potentially guide the new Order.

The Agricultural Expert Panel made its recommendations to the SWRCB in September 2014.

The trial court ruled the current (2012) Central Coast Ag Order was not in the public interest on August 10, 2015. The East San Joaquin Ag Order is still at the SWRCB and could be adopted in May 2017, but it is common knowledge that the decision will likely be litigated.

Several components of a new Central Coast Ag Order, such as the antidegradation analysis could have been started at any time. Had the Central Coast staff begun working on a new Ag Order in August 2015, it would have had 19 months to complete its work (and I am reasonably certain all parties would have agreed to a five-month extension).

Response:
The Central Valley Region needed over six years to develop the first of its long-term waste discharge requirement orders regulating irrigated agriculture. The State Water Board has not addressed the Agricultural Expert Panel recommendations except in the draft ESJ Order issued over one year ago. The ESJ Order itself has been pending before the State Water Board since January 2013. The *Monterey Coastkeeper* matter has been pending since 2013. This experience shows that nineteen months is inadequate to develop a comprehensive long-term program.

Letter No.: 8
Page No.: page 3
Topic: Legal

Comment: Shimek 17
The Regional Board staff and Board have articulated two separate justifications for advancing an order that does little and is not in compliance with the law:
• Unresolved issues.
No one really knows when East San Joaquin will be decided, and it will surely be litigated.

The State's appeal of Coastkeeper could take at least another year.

Zamora has been decided consistent with the environmental justice argument.

Triangle Ranch has been decided, again consistent with an environmental and environmental justice argument.

Response:
The Eastern San Joaquin order will provide the first guidance from the State Water Board on how to implement the Expert Panel Report, among other things. It would be a waste of public resources to develop a parallel program of this magnitude on the eve of the order's issuance, only to have to modify the Central Coast program for consistency with the State Water Board's order. That order will provide important interim guidance even if the parties spend years litigating it. The recent *Triangle Farms, Rava Ranches* and *Zamora* decisions will guide the board in issuing monitoring requirements and will guide the Executive Officer in considering and approving third-party monitoring proposals.

Letter No.: 8
Page No.: page 3
Topic: Legal- Coastkeeper et. al.

Comment: Shimek 19
While the State and Regional Board believe the Coastkeeper et. al. trial court decision is "stayed" pending the outcome of an appeal, there is nothing that keeps the Regional Board from addressing the deficiencies in the Order that have become apparent over the past five years; only the trial court's decision is stayed, but not the law itself.

Response:
Please see responses to comments Reck 3, Reck 4, Reck 6, and Reck 7.

Letter No.: 8
Page No.: page 6
Topic: TMDL

Comment: Shimek 21:
The TMDL for nutrients in the Pajaro River basin was approved in 2016 and states:
"Central Coast Water Board staff proposes that implementation and compliance with the conditions and requirements of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order) and any renewals or revisions thereof, would be deemed sufficient evidence that the TMDLs and load allocations for irrigated lands are being implemented."…… The Ag Order should not be the implementation mechanism for any TMDL unless there are enforceable use and discharge limitations and enforceable timelines and milestones.

Response:
Please see responses to comments Reck 3, Reck 4, Reck 6, and Reck 7. The Pajaro River nutrient TMDL's program of implementation states that all requirements necessary to implement the TMDL were contained in Ag Order 2.0. The TMDL does not require additional conditions in Ag Order 3.0 at this time.

Letter No.: 8
Page No.: page 9
Topic: Frawley's ruling

Comment: Shimek 22
Fundamentally, the current and Draft Order are flawed. Judge Frawley's Superior Court judgement (Attachment 2) begins to enumerate the failures of the preseOrders.
….
the trial court made three key factual findings:

1. The Modified Waiver does not have sufficiently specific, enforceable standards necessary to meet the basin plan's water quality objectives.

2. The Modified Waiver does not contain sufficient feedback mechanisms and monitoring provisions to enable the Board to effectively enforce the Modified Waiver.

3. The Modified Waiver's tier structure does not subject enough growers to requirements that are more stringent than the 2004 Waiver to show measurable progress.

Response:

Please see responses to comments Reck 3, Reck 4, Reck 6, and Reck 7. Also see response to comment Taylor-Silva 21. Total nitrogen applied reporting is an example of feedback mechanisms resulting in increased protection in water quality. Ag Order 3.0 nearly triples the ranches required to track total nitrogen applied.

The trial court's analysis has no precedential or other legal effect. State Water Board Order WQ 2013-0101 is stayed pending appeal. Ag Order 2.0, as modified by Order WQ 2013-0101 remains in effect until March 15, 2017 or until superseded by Ag Order 3.0, whichever is first. The State Water Board's responses to the trial court's substantive findings are set forth in State Water Resources Control Board's Appellant's Opening Brief in Case No. C080530, pp. 49 – 84

Letter No.: 8
Page No.: page 9
Topic: Frawley's ruling- Basin plan

Comment: Shimek 23:
Judge Frawley's Superior Court judgement (Attachment 2) begins to enumerate the failures
….
The Modified Waiver does not have sufficiently specific, enforceable standards necessary to meet the basin plan's water quality objectives…….

The Draft Agricultural Order Does Not Comply with the Basin Plan
The Basin Plan establishes water quality objectives to protect beneficial uses, including for drinking, recreation, and agriculture; includes an implementation plan to achieve water quality objectives; and incorporates the Nonpoint Source Policy and the Antidegradation Policy. Specifically, the basin plan sets water quality objectives for nitrates, toxicity, pesticides, and sediments. These standards require that nitrate concentrations do not exceed drinking water

standards and that pesticide, toxicity, and sediment loadings not harm beneficial uses. Any Waiver approved by the Boards must be "consistent" with these standards….

The Draft Order generally requires that dischargers "effectively control individual waste discharges" of various pollutants – such as pesticides and toxic substances, sediment and turbidity, nutrients, and nitrates – without setting any standards for these pollution discharges.

Moreover, if a grower's existing management practices do not effectively control discharges, the waiver requires only that the discharger make a "conscientious effort" to identify "improved" management practices – without defining what "improved" means or how it will be measured or enforced. In effect, the Modified Waiver tells dischargers: "If what you are implementing does not work, try something else."

The Draft Order continues to fail to include "sufficiently specific, enforceable measures and feedback mechanisms needed to meet the Basin Plan's water quality objectives." While we agree that immediate compliance is not possible, even an iterative interim approach must ensure reasonable progress toward the final goal. The Draft Order fails to ensure that implemented management practices – and their iterations – will make "measurable progress toward attaining water quality standards" or achieve "quantifiable reductions in pollutant discharges."

Response:
See responses to comments Reck 3, Reck 4, Reck 7, and Reck 6 .

Letter No.: 8
Page No.: page 11
Topic: NPS

Comment: Shimek 26
The Draft Order Is Not Consistent with the Nonpoint Source Policy.
The Nonpoint Source Policy sets out the required elements for any nonpoint source pollution control program, including the Ag Order. As a threshold requirement, the Regional Board can only endorse a program if "there is high likelihood" the program will achieve water quality objectives.

There is no evidence the current (2012) Order attained any water quality objectives and therefore there is no evidence the Draft Order will attain any water quality objectives either. The Draft Order thus clearly does not comply with the Nonpoint Source Policy.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, and Reck 7.

Letter No.: 8
Page No.: page 11-12
Topic: NPS

Comment: Shimek 27
Twelve years ago, when the State Board adopted the Nonpoint Source Policy the State Board recognized that much is known about the [management practices] that most effectively prevent

and control polluted runoff. Further, the State Board already knew then that a successful management practices program typically requires monitoring to assure that practices are properly applied and are effective in attaining and maintaining water quality standards, immediate mitigation of a problem where the practices are not effective, improvement of [management practice] implementation or implementation of additional [management practices] when needed to resolve a deficiency. The Draft Order fails to follow State Board guidance.

The Nonpoint Source Policy also forbids reliance on ineffective practices, stating "[management practice] implementation never may be a substitute for meeting water quality requirements." And the Policy specifically prohibits polluters from continuing to utilize previously non-effective management practices. The Draft Order contains no numeric water quality requirements and fails to offer any mechanism to measure management practice effectiveness.

To ensure that polluters continue to improve management practices, the Policy requires verification monitoring to determine whether the program is on time and on track in achieving its goals. Recognizing the urgency necessary to comply with the Porter-Cologne Act, the Policy further instructs the Regional Board to have "[a] rigorous dedication to periodic evaluation of all aspects of the program and an adaptive management approach." Twelve years after the 2004 Waiver (and more than three decades since the Regional Board's original irrigated agriculture waivers), we are no longer in the early stages of the program. To comply with the Nonpoint Source Policy's iterative approach at this point, the Modified Waiver must both make and demonstrate progress towards achieving water quality objectives.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, and Reck 7. Also, the State Water Board provided its interpretation of the Nonpoint Source Policy as it applies here in its Appellant's Opening Brief in *Monterey Coastkeeper.*

Letter No.: 8
Page No.: page 12-13
Topic: NPS elements

Comment: Shimek 28
The Draft Order Does Not Include the Nonpoint Source Policy's Five Key Elements.
The Policy mandates that Modified Waiver include five "key elements":
Key Element #1

1. address nonpoint source pollution in a manner that achieves and maintains water quality objectives;

The trial court concluded that the current Order failed to provide sufficient measures to improve water quality and thus does not satisfy the first key element. Moreover, the tier designations fail "to ensure that all the significant sources of the [nonpoint source] discharges of concern are addressed," as the Policy requires. The trial court also found that the current Order's tier structure is a "fundamental problem" because "[t]he vast majority of growers . . . will be subject to requirements equal to, or less stringent than, the 2004 Waiver."
……
The trial court found the current Order does not satisfy the key elements of the NPS Policy and therefore the Draft Order, with only minor changes, suffers from the same fatal flaws.

The Draft Order Does Not Include the Nonpoint Source Policy's Five Key Elements.
The Policy mandates that Modified Waiver include five "key elements":
Key Element #2

2. Include a description of management practices, program elements expected to be implemented, and a verification process;

Without management practices that have a "high likelihood" of meeting water quality requirements, the current Order cannot meet the second key element. This element also mandates that a previously used management practice can only be implemented if it "has been successfully used in comparable circumstances." The current Order fails to incorporate Element #2 because it contains much of the same structure as the ineffective 2004 Waiver. Not only is it "unreasonable for the Board to keep doing the same things it has been doing and expect different results," but the Nonpoint Source Policy forbids it.

The trial court found the current Order does not satisfy the key elements of the NPS Policy and therefore the Draft Order, with only minor changes, suffers from the same fatal flaws.

The Draft Order Does Not Include the Nonpoint Source Policy's Five Key Elements.
The Policy mandates that Modified Waiver include five "key elements":
Key Element #3

3. Include a time schedule and quantifiable milestones designed to measure progress toward achieving water quality objectives;

The current Order also violates the third key element by failing to include "specific time schedules designed to measure progress toward reaching quantifiable milestones." Agricultural intervenors admonish the trial court for expecting the waiver to have "a step-by-step time schedule" and a monitoring program to measure compliance with the schedule, but the Policy requires just that. Read together, the third and fourth key elements require "a specific time schedule, and corresponding quantifiable milestones," as well as a description of "the measures, protocols, and associated frequencies that will be used to verify the degree to which the [management practices] . . . are achieving the program's objectives." RB 9419. The trial court correctly found that the current Order lacks those provisions.
……
The trial court found the current Order does not satisfy the key elements of the NPS Policy and therefore the Draft Order, with only minor changes, suffers from the same fatal flaws.

The Draft Order Does Not Include the Nonpoint Source Policy's Five Key Elements.
The Policy mandates that Modified Waiver include five "key elements":
Key Element #4

4. Include sufficient feedback mechanisms to ensure that the program is achieving its stated purpose, and ascertain whether additional or different actions are required; and

The fourth key element explicitly requires "feedback mechanisms," so the Regional Board can determine if "additional or different [management practices] or [management practice] implementation measures must be used." As discussed above and as the trial court found, the current Order does not verify compliance with requirements.
……

The trial court found the current Order does not satisfy the key elements of the NPS Policy and therefore the Draft Order, with only minor changes, suffers from the same fatal flaws.

The Draft Order Does Not Include the Nonpoint Source Policy's Five Key Elements.
The Policy mandates that Modified Waiver include five "key elements":
Key Element #5

5. State the potential consequences for failure to achieve the program's objectives.

Lastly, the current Order violates the fifth key element by not including "a description of the action(s) to be taken if verification/feedback mechanisms indicate or demonstrate management practices are failing to achieve the stated objectives." The Policy instructs that "this element should be written with the objective of creating clear expectations and reinforcing the obligations" of the participants. In addition to failing to create clear expectations for growers, the current Order's vague "improved" management practices standard also "guarantees that that the Regional Board will not take enforcement action against a discharger as long as the discharger believes it is implementing 'improved' management practices, even if the 'improved' management practices remain completely ineffective at controlling discharges of waste."
……
The trial court found the current Order does not satisfy the key elements of the NPS Policy and therefore the Draft Order, with only minor changes, suffers from the same fatal flaws.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, and Reck 7. Also, the State Water Board provided its interpretation of the Nonpoint Source Policy as it applies here in its Appellant's Opening Brief in *Monterey Coastkeeper.*

Letter No.: 8
Page No.: page 14
Topic: Legal (Antidegredation)

Comment: Shimek 34
The Draft Order Is Not Consistent with the Anti-Degradation Policy.
California's Antidegradation Policy, which is incorporated into the basin plan, prohibits the Boards from allowing an activity that will result in the degradation of high quality waters absent specific findings.

The Regional Board has failed to perform an antidegradation analysis consistent with the Policy. The first step when undertaking an antidegradation analysis is to determine whether there are existing high quality waters that may be affected by a permitted discharge.
…….
The Regional Board admits that it has failed to conduct the required antidegradation analysis and argues that it no longer has the time before the current Order expires in March, 2017.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, and Reck 7.

Letter No.: 8
Page No.: page 14
Topic: Legal (Antidegredation)

Comment: Shimek 35
Ground water can also not be degraded and routine monitoring of wells is not enough to proactively protect against degradation. The Third District Court of Appeals in *Asociation de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Board* ("AGUA") found monitoring of domestic and agricultural supply wells to be insufficient to detect groundwater degradation, much less prevent it, because wells would not reflect contamination until many years after the initial discharge.
……..
The problem is that the Regional Board has known since November 2012, when the AGUA decision cleared the appellate court, that the analysis was required. Clearly, the Draft Order does not comply with the States Anti-Degradation Policy.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, and Reck 7. Also, the Board recognizes the shortcomings of supply wells as water quality monitoring wells, and does not intend to rely solely on supply wells for its long-term monitoring program .

Letter No.: 8
Page No.: page 14-15
Topic: Public interest

Comment: Shimek 36
The Modified Waiver Is Not in the Public Interest Because It Will Not Lead to Quantifiable Improvements in Water Quality.

With no evidence that the current Order or the Draft Order will lead to quantifiable improvements in water quality or arrest the continued degradation of the Central Coast Region's waters, the trial court was left with only one conclusion – the Draft Order is not in the public interest. Without sufficient water quality protections that safeguard the "health, safety and welfare of the people of the state," a waiver is not in the public interest.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, Reck 7, and Taylor-Silva 21. The Water Board's choice at this point is to adopt or revise proposed Ag Order 3.0, or not adopt an order, resulting in unregulated discharges from irrigated agriculture. Adopting an order is more in the public interest that allowing unregulated discharges. Ag

Letter No.: 8
Page No.: page 15
Topic: Public interest

Comment: Shimek 37
The Draft Order contains many broad proclamations but no enforceable limits, standards, or deadlines. As an example, the Draft Order "requires compliance with water quality standards" but then states that compliance will take many years and provides no measurable or

enforceable timeline. In addition, a grower is deemed to be in compliance with water quality standards if they use “improved” management practices. Despite these broad proclamations, we – and the trial court -- believe the waiver to not be in the public interest because it fails to effectively regulate irrigated lands within the Central Coast to protect all beneficial uses. Specifically, the most vulnerable populations will continue to suffer and the environment will be degraded if the 2017 Draft Waiver is approved as proposed.

Of course, the public interest is ultimately about people – in this case, the millions of people who rely on the region’s wells for drinking water and use the region’s waters for fishing, recreation and ecological services. Supporting that view, in 2012 the Legislature enacted the Human Right to Water Law, which declares that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption.” The Draft Order’s weak provisions will only allow conditions to worsen, which leaves vulnerable communities and future generations to bear the heaviest costs.

Response:
See responses to comments Reck 3, Reck 4, Reck 6, and Reck 7.

Letter No.: 8
Page No.: page 15
Topic: Public interest

Comment: Shimek 38
All stakeholders recognize that the Central Coast is “one of the most productive and profitable agricultural regions in the nation” and that agriculture drives much of the region’s economy. But as the Regional Board admonished in 2010, “[n]o industry or individual has a legal right to pollute and degrade water quality, while everyone has a legal right to clean water.” “Resolving agricultural water quality issues,” the Board conceded, “will also require changes in farming practices, will impose increasing costs to individual farmers and the agricultural industry . . ., and may impact the local economy.”

Response:
Comment noted.

Letter No.: 8
Page No.: pages 15-16
Topic: CEQA

Comment: Shimek 39
The Regional Board Has Failed to Comply With CEQA.

To comply with CEQA’s mandate, an agency must monitor sources of new information and assess the impacts of changes to a proposed project.

Pesticide use reports indicate that chlorpyrifos and diazinon use has declined and has been replaced by pyrethroids and neonicitinoids, and it is plausible and likely that the 2012 Ag Order was partly responsible for this shift. By failing to adjust the Draft 2017 Ag Order, the RWQCB has contributed to pollution that is more water soluble and more persistent and has led to new impairments. … [T]he Regional Board is now faced with a plethora of new information that

indicates the current and Draft Orders weaken environmental protections by continuing to focus on pesticides no longer in use, ignoring the flight from Tier Three regulation, and more."
…..
we now more fully comprehend the scope of nitrate pollution in groundwater and the RWQCB's collection of data has exposed the sometimes-gross over-application of this pollutant.

Response:

The negative declaration addresses the use of pesticides in the aggregate and states that management practices are available, including farm plans, reduction in overall pesticide use and preventing pesticides from reaching groundwater or surface water. The shift from chlorpyrifos and diazinon to other legal pesticides does not change this conclusion. In addition, Ag Order 3.0 is categorically exempt from CEQA because it does not modify the requirements of Ag Order 2.0, including pesticide control requirements. (Guideline 15301.)

Other legal pesticides have increased in use while chlorpyrifos and diazinon use has decreased; however, this change was brought about by other factors, for example, chlorpyrifos became a restricted material by the California Department of Pesticides (DPR), thereby increasing regulation of its use. DPR also issued a reregistration eligibility decision for diazinon which limited its use to lettuce only.

Regarding nitrate, see response to comment Reck 5. The Central Coast Water Board has documented nitrate pollution in groundwater since before adoption of Ag Order 2.0; this is not new information.

Letter No.: 8
Page No.: page 16
Topic: Public Trust Resources

Comment: Shimek 42
The Regional Board is Failing to Protect Public Trust Resources
In California, the waters and streams of the State, and the fish, wildlife, and ecological values they support and sustain, belong to the public and are held in trust by the State for the benefit of the people of California and future generations.

The Public Trust Doctrine creates an affirmative and ongoing fiduciary duty in all California public agencies, including the RWQCB, to protect and preserve these public trust resources for the benefit of the people of California and future generations. By continuing to authorize the discharge of agricultural pollutants at levels that exceed water quality standards and impair beneficial uses, the RWQCB is violating its fiduciary duty to protect and preserve these public trust resources for the benefit of the people of California and future generations.

Response:

This comment, while appreciated, is vague as to what it would have the Regional Water Board do now that would better implement the public trust, or the Porter-Cologne Water Quality Act for that matter. The public trust doctrine applies when a state agency alienates (transfers) public trust resources. (*San Francisco Baykeeper, Inc. v. California State Lands Commission* (2015) 242 Cal.App.4th 202, 238, *reh'g denied (Dec. 14, 2015), review denied (Mar. 9, 2016)*.) This

action does not alienate public trust resources nor even grant a long-term right to discharge waste.

The public trust doctrine is limited to navigable waters and their tributaries. (*Golden Feather Community Assn. v. Thermalito Irrigation Dist.* (1989) 209 Cal.App.3d 1276, 1283 – 1285.) With respect to surface waters subject to the public trust, implementing Porter Cologne's water quality requirements and the public trust, while not always exactly the same, are very much aligned and can be implemented concurrently. In the case of regulating waste discharges, the discharge of waste is considered a privilege and not a right (Wat. Code, § 13263, subd. (g)), rendering the public trust balancing that occurs with vested water rights less crucial for imposing requirements. To some extent, water quality statutes "codify" the public trust. (See generally, *Envtl. Prot. Info. Ctr. v. California Dep't of Forestry & Fire Prot*. (2008) 44 Cal. 4th 459, 515-16; see also Richard M. Frank, The Public Trust Doctrine: Assessing Its Recent Past & Charting Its Future, 45 UC Davis L. Rev. 665, 678 (2012) [public trust-based protections are codified in Fish and Game statute, leaving little or no room for judicial amplification].) Either way, the Regional Water Board's authority under the Water Code is sufficient on its own to take the necessary actions to restore and protect water quality from irrigated agriculture discharges and to satisfy any obligations to protect public trust resources.

The board has considered all demands being made on navigable waters and their tributaries, including drinking water supply and aquatic habitat. This order and successive orders will result in the attainment over time of surface water quality objectives and the protection of beneficial uses, in accordance with the Nonpoint Source Policy, the Basin Plan, including TMDLs, the Antidegradation Policy and Water Code section 13263, subdivision (c). These requirements are also appropriate for protection of the public trust.

Letter No.: 12
Page No.: page 5-6-7
Topic: Legal (Antidegredation)

Comment: Mercer 14
… Water Board Staff has inserted a number of new findings in the Order so that the Ag Waiver 3.0 has evolved into more than a simple Waiver renewal process. Unfortunately, some of these new findings demonstrate contain prejudicial, assumptive or factual errors. Each of the newly proposed findings should be examined for accuracy and objectivity.

Since growers are the ultimate practitioners of Water Board policies or regulations, there is, of course, concern about how Anti-degradation analyses and Best Practicable Treatment and Controls (BPTC) will ultimately be applied to private, agricultural, nonpoint source dischargers, who have limited capital and no way to recoup regulatory costs. SWRCB states in its Q&A, Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California, that "to evaluate the best practicable treatment or control method, the discharger should compare the proposed method to existing proven technology; evaluate performance data, e.g., through treatability studies; compare alternative methods of treatment or control; and/or consider the method currently used by the discharger or similarly situated dischargers." BPTC can trace it origins to the early Clean Water Act and National Pollution Discharge Elimination System effluent limits; hence, the BPTC approach is designed to address point source discharges. BPCT, in general, utilizes industry or federal standards. An example might be USDA NRCS practices. However, as has been repeated comments, reports and testimony

that federal and industry standards often are not applicable on the Central Coast because of differences in climate, resource availability, or cost structures.

Much of the local work done on Management Practices on the Central Coast from 1990 to 2012 involved soft, conservation practices such as vegetated ditches, hedge rows, mechanical weed and pest treatment, and cover crops. However, today, the Water Board has promulgated regulations that require growers to implement hard-core agronomic practices and unfortunately, there currently is ***little to no*** *(correction emailed on 01/18/2017 to C. Rose)* no definitive science on these practices for Central Coast Agricultural. The current state of nutrient, irrigation, sediment and riparian habitat technologies on the Central Coast are in the "learn as you go" phase. Today's technology development is dynamic. There are few technical baselines or effectiveness measurements that could be used as BPTC for the purposes of Antidegradation.

Some University guidelines have been developed and local research is 7 underway but is being constantly modified: what we know today will be different tomorrow. In order to utilize applicable technologies, a regulation would have to be built that is very flexible and adaptive.

One other complicating issue is that many operations are managed as an entire unit; whereas most practices, when researched and extended, focused on a single practice on a single farm/ranch or subset thereof. Often, a technical practice that appears to be ideal will not fit within an operation that consists of many farms/ranches.

In 2013, SWRCB conducted Focused Groups on the State Anti-degradation Policy. When one reads the Environmental Focused group comments about how to relate the Anti-degradation policy to Agriculture, it becomes abundantly clear that while this stakeholder group may have a firm grasp of the legal requirements of the Antidegradation policy, they are clueless as to how to build an Anti-degradation regulation or implement such regulations to balance resources. Statements such as "The current way agriculture is practiced might not be sustainable" are not helpful. One can only surmise that, in the opinion of some environmental stakeholders, the ultimate BPTC is to eliminate today's agriculture.

Consequently, there is grave concern about how implementable the Anti-degradation BPTC policy realistically will be by either the Central Coast Water Board or the Regulated Community. The questions are: how will the Water Board make the determinations about what BPTCs to use? How will the Water Board Staff determine the level of effectiveness of the BPTC in its ideal state versus in its implemented state? And how will the Water Board build a regulation that has the necessary flexibility and adaptability?

Response:
The Water Boards cannot dictate the manner of compliance with water quality orders. (Wat. Code, §13360.) No single suite of management practices is appropriate for every field, ranch or operation. Rather, BPTC must be implemented through a combination of practices that will ensure discharges ultimately meet all water quality objectives and eliminate any unreasonable degradation; management practice effectiveness assessments; practice improvements where needed; and monitoring to detect trends and confirm that practices conform to any applicable performance standards. The Water Boards support innovative approaches to water quality problems. The Antidegradation Policy does not prevent dischargers from improving practices, changing practices over time, conducting research or testing new approaches.