SUMMARY OF PUBLIC COMMENTS AND ASSESSMENT OF ALTERNATIVE PROPOSALS

Staff solicited written public comment on the Ag Order 4.0 Requirement Options Tables. Interested parties were able to submit their comments from November 29, 2018, to January 22, 2019. Staff received 97 comments and two alternative proposals. Most comments were received from farm operations, followed by organizations, most of which are affiliated with agriculture, the general public, and a few late comments.

All comment letters received are available online at: https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/ag_order4_public_comments.html

Of the comment letters received, there were three form letters:

- Form 1: The commenters oppose inconsistency with State Board directives, numeric limits, pesticide restrictions, and riparian buffer requirements; support requirements consistent with State Water Board direction (the ESJ order); and are concerned Ag Order 4.0 will result in increased costs that will affect the growers' ability to implement management practices protective of water quality.
- Form 2: The commenters support the Ag Organization proposal; support quantifiable milestones that are not numeric limits; support estimates rather than measurements, such as for water use; support balancing the need of reporting with the burden of reporting; oppose prohibiting the use of pesticides and fertilizer; do not support exclusion of permit coverage for the use of plastic mulch on slopes; and suggest the regional water board should not disincentivize use of high nitrogen groundwater.
- Form 3: Supports comments made by Monterey County Vintners & Growers Association and the Wine Institute. The commenters agree with the Ag Organization proposal; support tiers based on ranch characteristics (such as in Ag Order 2.0 and 3.0); state that vineyards are low risk; and support the vineyard sustainability certification program Sustainability in Practice (SIP) as an incentive. Recall that growers that are SIP certified receive a tier 1 assignment for their certified ranches in Ag Order 3.0, thereby lowering the regulatory burden.

Recurring comments included:

- Support for the Ag Organization proposal
- Oppose fertilizer and pesticide application limits
- Support fertilizer application limits
- Oppose numeric limits
- Vineyards pose a lower threat to water quality
- Sustainability in Practice (SIP) should continue to result in reduced reporting requirements
- Organic operations pose a lower threat to water quality
- Oppose requirements that could conflict with food-safety pressures on growers
- Oppose a slope exclusion, such as for the use of plastic mulch; some commenters suggested using the county rules for development on slope
- Do not disincentivize the use of groundwater with high nitrogen content
- Support phasing, geographically

Ag Organization Alternative

The Ag Organization proposal was submitted on behalf of Grower-Shipper Association of Central California, Grower-Shipper Association of Santa Barbara and San Luis Obispo Counties, Monterey County Farm Bureau, Central Coast Groundwater Coalition, and Western Growers and California Farm Bureau Federation.

The Ag Organization proposal included a thorough narrative outlining the elements of the proposal, including roles of a suggested third-party, growers, and Central Coast Water Board staff. The proposal discussed an approach to resolving surface and groundwater issues, quantifiable milestones, incentives, and provided a legal review that included Water Board authority with respect to regulating agricultural discharges. The proposal included a table that summarized the narrative discussion; neither the table nor narrative proposes discharge limits or application limits.

The Ag Organization will provide a presentation at the March 20-22, 2019 meeting. Components of the Ag Organization proposal include:

- Surface water issues:
    a. An ag third party is formed. Develops methodology to prioritize watersheds for increased oversight and follow-up monitoring. Develops draft reporting forms.
    b. Compliance with Ag Order 4.0 is based on management practice implementation and reporting. Management practices implemented are reported to the Central Coast Water Board in prioritized areas, such as watersheds.
    c. Central Coast Water Board responsibilities are identified in Ag Order 4.0, such as inspections and enforcement follow-up.
    d. Support current cooperative monitoring program.
- Nitrate in groundwater (based on ESJ order approach):
    a. Continue total nitrogen applied (TNA) reporting for all ranches and conduct outlier follow-up until nitrogen applied and removed (AR) reporting is in effect.
    b. AR reporting is phased in after nitrogen removal coefficients are developed.
    c. Irrigation and Nutrient Management Plan (INMP) summary reporting is phased in by priority areas along with AR reporting.
    d. Domestic well sampling: annually, unless nitrate is less than 8 mg/L-N for three years, then once every five years; if the well is above 10 mg/L-N then no further sampling is required.
    e. Irrigation well sampling: primary well every three years.
- Sediment and erosion control plans required in priority areas. Requirement is based on slope, discharge and impermeable surfaces. Monitor turbidity in receiving waters through cooperative monitoring program.
- Groundwater trend monitoring: methodology developed by ag third party for staff review.
- Protection of riparian vegetation only in cases where there exists a Clean Water Act defined wetland.
- Propose Ag Order 4.0 as waste discharge requirements (WDRs) and not waiver of WDRs.

Staff provides a brief analysis below of the Ag Organization proposal in terms of consistency with the NPS Policy and precedential requirements of the ESJ order.

Staff Assessment of Ag Organization Proposal Compared to Nonpoint Source Policy and ESJ Order

Key element one of the Nonpoint Source Policy requires that a program explicitly state its purpose and that it achieves and maintains water quality objectives and beneficial uses.

The Ag Organization proposal implies that water quality limits applicable to agriculture will ultimately be achieved but does not state *water quality objectives* will be achieved. An excerpt from the Ag Organization's proposal states:

"With respect to time schedules for meeting water quality objectives (which need to be expressed exclusively as time schedules for meeting various receiving water limits), we provide no specific recommendations at this time. Rather, we believe that by meeting the quantifiable milestones expressed in the Ag Alternatives surface water program element, contributions of constituents from discharges of irrigation water will decrease dramatically **and will ultimately result in compliance with receiving water limits as applicable to agriculture**. (Exhibit-2, page 10. Emphasis added)."

Key element two of the Nonpoint Source Policy requires that the program describe a process to ensure and verify proper management practice implementation so the Regional Board can determine whether there is a high likelihood the program will attain ***water quality requirements.***

The Ag Organization proposal describes a process where growers implement management practices targeted towards known water quality issues. Water Board staff then inspect farms and generate a numeric score that assesses the grower's implementation efforts; low scores result in an iterative process where the grower is expected to increase their management efforts, which generates another inspection that could ultimately lead to increased reporting if another low score is produced, or enforcement actions if the grower failed to increase their efforts. This process *could* lead to "proper management practice implementation," as required in key element two; however, whether this approach results in a "high likelihood" that water quality requirements will be attained is unknown because the receiving water monitoring may or may not be granular enough to demonstrate whether the implementation effort upstream is working as intended.

Key element three of the Nonpoint Source Policy requires a specific time schedule and quantifiable milestones to measure progress toward reaching the ***specified requirements****.*

Note that key element three relates to key element two in that the quantifiable milestones should measure progress towards achieving specified requirements, and that the Regional Board must determine whether there exists a "high likelihood" that water quality requirements will be attained. Therefore, the quantifiable milestones should provide a high degree of likelihood that water quality requirements will be achieved.

The Ag Organization proposal identifies quantifiable milestones, such as: completion of education requirements; decreasing the percentage of ranches with low inspection scores; treatment system implementation; development of an irrigation and nutrient management plan summary report; submission of nitrogen applied and removed data; a decrease in the number of high outliers. The proposed quantifiable milestones do not contain quantified limits related to agricultural discharges at the field level and are vague indicators of progress towards achieving water quality requirements because there is not a clear nexus between the milestones and improvements to water quality ; they do not meet the threshold of being indicators resulting in a high likelihood of reaching water quality objectives.

The Ag Organization's proposal is based on an iterative approach where management practices are implemented by growers in an effort to demonstrate that, based on implementation of practices, water quality is being improved. The proposal supports the current Cooperative Monitoring Program's efforts to assess receiving water quality; however, there is no specified date when results of these monitoring efforts must show compliance with water quality objectives, except by reference to TMDLs.

Key element four of the Nonpoint Source Policy requires that the program provide sufficient feedback so the Regional Board, dischargers and public can determine whether the program is achieving its goals, or whether additional management practices are necessary.

The Ag Organization's proposal provides feedback, such as reporting management practices implemented, summary information reported through irrigation and nutrient management plan summary reports and receiving water monitoring results. Increasing the implementation of management practices while monitoring receiving water to gauge the effect of those practices may be a reasonable approach, if it works in a reasonable period of time and the management practices result in receiving water quality improvement. If this approach is not successful, another approach must be implemented with higher resolution to identify the individual sources of the water quality problem, such as edge of field monitoring. The alternative lacks this next step, proposing no individual edge of field monitoring. Therefore, the feedback described in key element four is not sufficient in the Ag Organization's proposal.

Key element five of the Nonpoint Source Policy requires a program make clear, in advance, the potential consequences for failure.

The Ag Organization's proposal implies that failure is defined by a lack of effort to implement management practices. For example, a low inspection score that is based on management practice evaluation, or, being identified as a high outlier for nitrogen application reported on a total nitrogen applied report. There are consequences for these failures described in the proposal, including increased reporting, rather than edge of field concentration limits or fertilizer application limits for that would provide a clearer path to improving water quality.

In terms of consistency with the ESJ Order, the Ag Organization's proposal complies with elements of the ESJ Order. One exception is the process to develop groundwater protection formulas, values and targets. The Ag Organization's proposal does include the following precedential elements:

- Management practice reporting
- Field-level management practice implementation data
- Sediment and erosion practices implementation
- Irrigation management and reporting
- Nitrogen applied and removed (AR) reporting and follow-up

Environmental Advocate Alternative

An Environmental Advocate alternative proposal was submitted on behalf of The Otter Project and California Coastkeeper Alliance. The proposal included a completed set of options tables where numeric values such as application limits, concentrations, and dates of compliance were provided. It also includes a monitoring and reporting plan for surface and groundwater, with suggested benchmark values for nutrients, pesticides and other chemicals. The proposal includes a legal review of questions posed by the board regarding the boards authority with respect to posing nitrogen application limits and whether the Eastern San Joaquin Order is precedential on the Central Coast Water Board's decisions on Ag Order 4.0.

The environmental advocates will present their alternative proposal at the March 20-22, 2019 board meeting. Components of their proposal include:

- Follow-up monitoring conducted in areas where surface water quality exceedances occur; the plan could be developed individually or collectively.
- Continuance of the cooperative monitoring approach, increasing the number of pesticides monitored and frequency relative to current Ag Order 3.0.
- Potential individual edge-of-field sampling in follow-up areas.
- Numeric limits for nutrients, pesticides and turbidity; both receiving water and in some cases, edge of field and tile drains with target dates to achieve these limits.
- Nitrogen application limits decreasing over time.
- Irrigation and nutrient management plans required for all ranches.
- Target dates to achieve surface water quality and groundwater goals.
- Use of plastic on hillsides greater than 10% not covered by the Ag Order.
- Riparian habitat buffers of 30 feet from top of bank.
- Water quality buffer plan reporting.
- Prohibition against removing existing vegetation.
- Domestic and agricultural well sampling, including quarterly sampling in year one for all domestic and irrigation wells, then quarterly sampling in subsequent years by rotating the quarter the sample is taken.

Staff provides a brief analysis below of the Environmental Advocate's proposal in terms of consistency with the Nonpoint Source Pollution Control Policy and precedential requirements of the Eastern San Joaquin Watershed Agricultural Order (ESJ Order)

Assessment of Environmental Advocate's Proposal Compared to Nonpoint Source Policy and ESJ Order

Key element one of the Nonpoint Source Policy requires a program explicitly state its purpose and to achieve and maintain water quality objectives and beneficial uses.

The Environmental Advocate's proposal includes a time schedule to achieve water quality objectives, implying the purpose is to achieve water quality objectives.

Key element two of the Nonpoint Source Policy requires that the program describe a process to ensure and verify proper management practice implementation so the Regional Board can determine whether there is a high likelihood the program will attain ***water quality requirements.***

The Environmental Advocate's proposal seeks to verify management practice implementation by incorporating limits such that, if complied with, would require implementation of a management practice; that is, the limit drives the need for implementing management practices, therefore achieving the limit is proof of effective implementation. For example, the proposal includes an application limit based on a crop's ability to uptake nitrogen; this is a practice to adjust nitrogen application based on the crop's need. Similarly, they propose pesticide benchmark concentration limits that, in order to achieve, would require implementation of management practices. The Environmental Advocates also propose a sediment and erosion control plan requirement, with reporting of management practices.

Key element three of the Nonpoint Source Policy requires a specific time schedule and quantifiable milestones to measure progress toward reaching the ***specified requirements****.*

The Environmental Advocate proposal includes a specific time schedule to achieve benchmarks and water quality objectives as summarized here:

- Groundwater
  - 2050: nitrate drinking water standard
- Surface water nitrate:
  - 2024: nitrate drinking water standard
  - 2030: biostimulatory benchmarks
- Pesticides
  - 2022: ecological benchmarks
  - 2024: drinking water
- Sediment
  - 2020: 25 NTU in cold water streams; 100 NTU warm water streams; 10 mg/L total suspended solids
- Riparian Habitat
  - 2025: setback of 30 feet minimum
  - 2025: riparian buffers

Milestones to achieve the benchmarks and water quality objectives are included in the proposal. For example, nitrogen application limits become gradually more stringent over time, as follows:

2020: nitrogen applied allowed (lb/ac/yr/crop) = nitrogen uptake demand of crop X 1.4 X 2.0
2023: nitrogen applied allowed (lb/ac/yr/crop) = nitrogen uptake demand of crop X 1.4 X 1.5
2025: nitrogen applied allowed (lb/ac/yr/crop)= nitrogen uptake demand of crop X 1.4
2050: nitrogen applied allowed (lb/ac/yr/crop)= nitrogen uptake demand of crop

The Environmental Advocate proposal incorporates fertilizer nitrogen, irrigation water nitrogen, and soil nitrogen into their formula.

Key element four of the Nonpoint Source Policy requires that the program provide sufficient feedback so the Regional Board, dischargers and public can determine whether the program is achieving its goals, or whether additional management practices are necessary.

The Environmental Advocate proposal provides feedback by requiring ranch-level numeric data, including:

- Total nitrogen applied, that could be used to assess nitrogen application limits.
- Receiving water and, in some cases, edge of field discharge monitoring that could be used to assess compliance nitrogen, turbidity and pesticide benchmarks.
- Reporting of on-farm riparian vegetation buffer condition.

Key element five of the Nonpoint Source Policy requires a program make clear, in advance, the potential consequences for failure.

The Environmental Advocate propose a progressive enforcement strategy, where non-compliance in receiving waters triggers individual monitoring on ranches, such as edge of field monitoring with limits. Failure to comply with discharge limits results in increased monitoring and reporting, issuance of notice of violation letters, and eventually enforcement action.

In terms of consistency with the ESJ Order, the Environmental Advocate proposal largely complies with the following precedential elements:

- Management practice reporting

- Field-level management practice implementation data
- Sediment and erosion practices implementation and reporting
- Irrigation management

The Environmental Advocate's proposal does not include:

- Nitrogen applied and removed (AR) reporting and follow-up

The lack of requirements for AR reporting and follow-up in the Environmental Advocate's proposal is significant because the ESJ Order identified these requirements as precedential for all regional boards; they comprise the tracking and reporting mechanism that all regions could eventually use to assess progress towards achieving groundwater quality objectives for nitrogen.

The Environmental Advocate's proposal did not specifically address groundwater protection formulas, values and targets. The proposed application limits are equivalent to what is proposed as a groundwater quality protection metric.