

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 10-11, 2020

Prepared on August 15, 2020

ITEM NUMBER: 3

SUBJECT: Draft Ag Order 4.0 Workshop - Requirements, Stakeholder Input, and Board Discussion and Direction

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KEY INFORMATION

Location: Regional
Type of Discharge: Agricultural
Existing Orders: Ag Order 3.0 (Order R3-2017-0002)

ACTION: Information/Discussion/Board Direction

SUMMARY

This agenda item follows the release of and public comment period for Draft Agricultural Order 4.0 (Draft Ag Order 4.0) and the associated Draft Environmental Impact Report (DEIR). The Draft Ag Order 4.0 and DEIR were released for public comment on February 21, 2020 and were subject to an extended comment period – that closed on June 22, 2020 – due to the COVID-19 pandemic. This agenda item was formerly scheduled for the May 6, 7, 8 and 28 Water Board meetings, but was postponed due to the COVID-19 related public comment period extension.

This agenda item is the next phase of the public process initiated in August 2017 for the development of Ag Order 4.0 and consists of a four day public workshop 1) to receive verbal public comment from stakeholders, 2) for staff to provide an overview of the draft order and written public comments, and 3) for the board to consider and discuss the draft order and public comments and provide staff with direction on next steps. The four-day workshop and this staff report is a singular item split between two, two-day public meeting dates, September 10-11 and September 23-24. As outlined in more detail below, the four-day workshop includes input from stakeholders through stakeholder panel presentations and public comment followed by staff presentations and board

discussion and direction regarding how to proceed with the development of a proposed Ag Order 4.0.

This staff report includes an overview of the following:

- Workshop schedule and list of stakeholder panel groups/speakers.
- Oral public comment information and instructions.
- Draft order project objectives, framework, requirements and development process.
- DEIR and development process.
- Received written public comments.
- Potential next steps and planning.

This agenda item is intended to inform the next steps for the development of a proposed Ag Order 4.0 and the associated schedule leading up to an adoption hearing. The next steps and timing for the development and adoption of Ag Order 4.0 are currently uncertain and depend on the successful implementation of the four-day, virtual workshop via the Zoom online meeting platform and the direction provided by the board in response to the draft order and public comments. The Water Board is subject to a court order to adopt Ag Order 4.0 to replace Ag Order 3.0 by January 31, 2021, with the potential for court-approved “good cause” extensions in 75-day increments. Although not the only governing factor in determining the next steps, the court order must be considered and addressed as we proceed with the development and adoption of a final Ag Order 4.0. Other governing factors and potential scenarios are discussed in the Next Steps and Planning section at the end of this staff report.

WORKSHOP SCHEDULE AND LIST OF STAKEHOLDER PANEL GROUPS/SPEAKERS

This agenda item will occur over a period of four days split between two, two-day meetings: September 10-11 and 23-24. The first two days will be focused on stakeholder group (e.g., agricultural, environmental, environmental justice, etc.) panel presentations as outlined below. The Water Board will hear all oral public comments on the draft order and DEIR following completion of the stakeholder panels on September 11th.

Water Board staff will present an overview of the draft order and written public comments on September 23rd with potential carryover to the 24th depending on the level of board discussion. To the extent possible, September 24th will be devoted to board discussion and direction to staff on the next steps of the Ag Order 4.0 development and adoption process.

The proposed schedule for the four days is summarized in the table below. Please note that this schedule is an estimate and could change prior to, or during board meeting days.

Anticipated Schedule for September 10-11 and 23-24:

Thursday, September 10		
Stakeholder Panel Presentations		
Panel/Group	Participants	Topic
Preservation Inc.	Sarah Lopez	Third-party Activities
Agricultural Association Partners Panel	Abby-Taylor Silva, Norm Groot, Claire Wineman	Ag Partners Alternative Submittal
Preservation Inc.	To be determined (TBD)	Surface Water Requirements
Public Interest Panel	Steve Shimek, Ben Pitterle, Sean Bothwell, Lisa Hunt	Support of Draft Ag Order 4.0 with Refinements
Agricultural Association Partners Panel	Various growers TBD	Economics
Vineyard Team	Kris Beal	Incentivizing Water Quality Protection and Regulatory Relief Through Third Party Certification
Friday, September 11		
Stakeholder Panel Presentations (continued from 9/10)		
Panel/Group	Participants	Topic
Community Water Center	Debi Ores, Horacio Amezquita, Ignacio Garcia, others TBD	Ag Order 4.0 and Impacts to Drinking Water
Golden Gate University School of Law & Stanford Law School	Lucas Williams, Tyler Sullivan, Helen Kang, Debbie Sivas	Legal Perspectives on Ag Order 4.0 - Protection of the Environment and Environmental Justice
Agricultural Association Partners Panel	Tess Dunham, Kari Fisher	Legal and Technical
Oral Public Comments on Draft Ag Order 4.0		
Wednesday, September 23		
Staff Presentations	Elaine Sahl, Paula Richter, Diane Kukol, others	Summary of Ag Order 4.0 Requirements and Written Comments Received
Thursday, September 24		
Staff Presentations, continued as needed	Elaine Sahl, Paula Richter, Diane Kukol, others	Summary of Ag Order 4.0 Requirements and Written Comments Received
Board Discussion and Direction		

Important Public Comment Information (read carefully)

All persons wishing to speak during the workshop on September 10th or 11th, including panelists giving presentations, must complete and submit an electronic comment card by noon Thursday, September 3rd. A significant number of requests to comment are anticipated, and this deadline is intended to allow sufficient time for the Central Coast Water Board to plan for and manage the receipt of oral comments during the meeting, in an effort to ensure everyone wishing to speak has an opportunity to do so. The electronic comment card and instructions are available at the following website along with additional information about participating via the remote meeting solution or telephonically:

https://www.waterboards.ca.gov/centralcoast/board_info/remote_meeting/index.html

Oral public comment on this item will occur on September 11th following the stakeholder workshop panel presentations; it is currently anticipated that public comment will occur after 1:00 pm. Individuals and organizations providing comment in the form of the panel presentations (i.e., panelists) will not be allowed to provide additional oral comments at this meeting. Oral comments are typically limited to 3-minutes per speaker unless otherwise approved by the Board Chair, and the Board Chair may need to adjust the amount of time each speaker has or extend the public comment period to September 23rd to ensure everyone has an opportunity to provide public comment. Where speakers can be grouped by affiliation or interest, such groups are encouraged to select a spokesperson and to not be repetitive. **Requests for extra time to provide oral public comment need to be sent to the Clerk to the Board at Tammie.Olson@waterboards.ca.gov by 12:00 noon on Thursday, September 3rd.**

DISCUSSION**Background**

The Water Board directed staff in the spring of 2017 to begin developing Ag Order 4.0. Since then, staff has engaged in an open and transparent public participation process, drafted an order framework and conceptual options documents, and conducted numerous workshops, public meetings, and agency outreach to inform and discuss the draft order development process, leading to the issuance of a DEIR and Draft Ag Order 4.0 for written public comment. Milestone events leading to this agenda item include:

1. August 2017: Series of three listening sessions throughout the region, seeking stakeholder input.
2. February 2018: Initial study released to the public to begin soliciting input related to environmental review for the California Environmental Quality Act (CEQA). Staff held a series of CEQA scoping meetings throughout the region in March 2018.
3. March 2018: Board meeting agenda item discussing surface water quality conditions in agricultural areas.

4. May 2018: Board meeting agenda item discussing groundwater quality conditions in agricultural areas.
5. June 2018: Board meeting agenda item discussing the precedential requirements outlined in the State Water Board's Eastern San Joaquin River Watershed agricultural order. Precedential requirements are those that must be incorporated in all future agricultural orders in the state.
6. September 2018: Two-day board workshop dedicated to hearing directly from stakeholders on Ag Order 4.0.
7. November 2018: Added two-day board meeting at which staff presented options to the Water Board and stakeholders that described potential paths forward for development of Ag Order 4.0. The options were presented in five tables, known as *conceptual options tables* (options tables). The five options tables are titled:
 - a. Table 1: Irrigation and nutrient management for groundwater protection.
 - b. Table 2: Irrigation and nutrient management for surface water protection.
 - c. Table 3: Pesticide management for surface water and groundwater protection.
 - d. Table 4: Sediment and erosion management for surface water protection
 - e. Table 5: Riparian area management for water quality protection.The two-day item included recommendations from stakeholders as well, including an agricultural panel that summarized an "Ag Concept Paper" outlining concepts for inclusion in Ag Order 4.0.
8. November 2018 – January 2019: Written public comment period (64-days) on the options tables.
9. March 2019: Two-day board meeting agenda item to discuss written comments received regarding the options tables and to provide direction to staff on proceeding with development of a draft order. Options tables 1-4 were discussed while discussion of options table 5 was rescheduled for the next board meeting. Direction to staff based on the options tables was not provided at this meeting and postponed to the next meeting.
10. May 2019: Board provided staff direction to develop Draft Ag Order 4.0 based on the options tables, also directed staff to develop a workshop on food-safety concerns surrounding the riparian habitat requirement outlined in options table 5.
11. September 2019: Board meeting workshop focused on comanaging riparian habitat protection and food safety issues. The Water Board and public heard from growers, researchers, and the environmental community on the potential conflicts between the riparian area management requirements (options table 5) and the implementation of food safety measures at the farm field level.
12. February 2020: Draft Ag Order 4.0 and DEIR released to public soliciting input related to environmental review and the proposed requirements.
13. February 2020 – June 2020: Written public comment period (122-days) on the DEIR and Draft Ag Order 4.0 requirements. The public comment period originally ended in April 2020 but was extended to June 2020 in response to

the COVID-19 pandemic to ensure stakeholders were able to effectively participate in the public process.

14. March 2020: Three in-person public workshops to provide overview of the DEIR and Draft Ag Order 4.0 requirements; the workshops were postponed due to the COVID-19 pandemic.
15. May 2020: Four days of planned discussion of Draft Ag Order 4.0 at board meetings cancelled due to COVID-19 pandemic.
16. June 2020: Staff hosted three virtual public workshops during the first week of June to provide an overview of the DEIR and Draft Ag Order 4.0 requirements, along with question and answer sessions with stakeholders.
17. July 2020: Stakeholder workshop regarding expectations for cooperative (e.g. third-party) monitoring and planning.

Ag Order 3.0 is a waiver of waste discharge requirements (Waiver of WDRs). Waivers of WDRs have a maximum term of five years. Ag Order 3.0 was adopted in March 2017 with a three-year term because the Water Board and staff established a goal of replacing it by March 2020. Ag Order 4.0 will replace the current Ag Order 3.0 as a waste discharge requirement (WDR). WDRs do not expire; however, the Board has discretion to revise WDRs at any time, and they should be reviewed periodically.

Ag Order 3.0 was challenged in court, and in September 2019, the parties partially resolved the litigation by stipulated judgement. The Sacramento County Superior Court also issued a peremptory writ of mandate compelling the Water Board to adopt a new agricultural order (Ag Order 4.0) to replace Ag Order 3.0 by January 31, 2021. Under the stipulated judgment, Ag Order 3.0 cannot be extended beyond January 31, 2021 without a court order. The Water Board may seek a good cause extension from the court of not more than 75 days and any additional good cause extensions shall also be limited to 75 days.

Project Purpose and Objectives

Since the issuance of the first Agricultural Order in 2004, the Water Board has compiled substantial data demonstrating that water quality conditions in agricultural areas of the region continue to be impaired or polluted by waste discharges from irrigated agricultural operations. The main impacts from irrigated agriculture in the central coast region are nitrate discharges to groundwater and associated drinking water impacts, nutrient discharges to surface water, pesticide discharges and associated toxicity, sediment discharges, and degradation of riparian and wetland areas.

The requirements described in Draft Ag Order 4.0 are intended to achieve the overall project purpose and objectives, which are to:

1. Protect and restore beneficial uses and achieve water quality objectives specified in the Basin Plan for commercial irrigated agricultural areas in the central coast region by:
 - a. Minimizing nitrate discharges to groundwater,

- b. Minimizing nutrient discharges to surface water,
 - c. Minimizing toxicity in surface water from pesticide discharges,
 - d. Protecting and restoring riparian and wetland habitat, and
 - e. Minimizing sediment discharges to surface water.
2. Effectively track and quantify achievement of bullets 1-a through 1-e listed above over a specific, defined time schedule.
 3. Comply with the State Nonpoint Source Pollution Control Program, the State Antidegradation Policy, relevant court decisions such as those pertaining to Coastkeeper *et al* lawsuits, the precedential language in the Eastern San Joaquin Watershed Agricultural Order, and other relevant statutes and water quality plans and policies, including Total Maximum Daily Loads in the central coast region.

SUMMARY OF DRAFT AG ORDER 4.0

Draft Ag Order 4.0 and associated documents are available on the Central Coast Water Board's website at:

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/ag_order4_renewal.html

Draft Ag Order 4.0 documents include:

1. Draft Ag Order 4.0
2. Attachment A: Findings
3. Attachment B: Monitoring and Reporting Program
4. Attachment C: Acronyms, Abbreviations, and Definitions

Draft Ag Order 4.0 begins with general regulatory and policy findings followed by the proposed requirements generally arranged in a numerical sequence (like the five options tables discussed over the past two years). Attachment 1 to this staff report contains an outline version of the five options tables and refers the reader to the location of the associated requirements in Draft Ag Order 4.0; Attachment 1 to this staff report is not an exhaustive key to locating all requirements described in the draft order. The reader can refer to the full conceptual options tables discussed in item 3 of the May 2019 Board meeting here:

https://www.waterboards.ca.gov/centralcoast/board_info/agendas/2019/may/index.html

Draft Ag Order 4.0 Attachment A – Findings: Includes factual, legal, and technical findings in addition to those provided in the body of the Order. These findings are generally arranged in the numerical sequence of the five options tables. Additional discussion is provided, where appropriate, to provide background and justification of the proposed requirements.

Draft Ag Order 4.0 Attachment B – Monitoring and Reporting Program requirements: Includes requirements associated with surface water and groundwater monitoring and reporting; irrigation and nutrient management plan (INMP) reporting, which includes

nitrogen applied and nitrogen removed reporting; annual compliance form reporting and more.

Draft Ag Order 4.0 Attachment C – Acronyms, Abbreviations and Definitions: Helps the reader understand regulatory and other terms commonly used in the draft documents.

Key Elements of Draft Ag Order 4.0 Requirements

Key elements of Draft Ag Order 4.0 requirements include *groundwater phase areas*, *surface water priority areas*, *riparian priority areas*, *targets*, *limits*, *setbacks*, *time schedules*, and *monitoring and reporting*.

Groundwater Phase Areas

Groundwater phases are based on the current water quality conditions as well as future water quality impairment risk; variables such as current groundwater impairment and groundwater recharge were considered. All ranches are located in one of three *groundwater phase areas* – groundwater phase areas 1, 2, or 3. The groundwater phase indicates when groundwater related monitoring and reporting requirements must begin, with ranches in phase area 1 reporting before ranches in phase area 2, and phase area 2 ranches reporting before phase area 3 ranches. Each ranch will be assigned to a groundwater phase area and this will be indicated on the electronic Notice of Intent (eNOI).

Surface Water Priority Areas

Surface water priority areas are based on the relative level of water quality impairment and risk to water quality; variables such as water quality data, miles of water quality impairment and the percent of irrigated acres in the watershed were considered. All ranches are located in one of four *surface water priority areas* – surface water priority areas 1, 2, 3, or 4. The surface water priority area indicates when follow-up work plans are due, with ranches in surface water priority area 1 completing work plans before ranches in priority area 2, priority area 2 ranches completing work plans before ranches in priority area 3, and priority area 3 ranches completing work plans before ranches in priority area 4. Each ranch will be assigned to a surface water priority area, and this will be indicated on the eNOI.

Riparian Priority Areas

Riparian priority areas are based on existing surface water quality data and potential risk to surface water quality; variables such as the magnitude and frequency of water quality exceedance were considered. A subset of ranches are located in one of four *riparian priority areas* – riparian priority areas 1, 2, 3, or 4. The riparian priority area indicates when planning and reporting must begin, with ranches in riparian priority area 1 reporting before ranches in riparian priority area 2, priority area 2 ranches reporting before ranches in priority area 3, and priority area 3 ranches reporting before ranches in priority area 4. Each ranch will be assigned a riparian priority and this will be indicated on the eNOI.

Targets, Limits and Setbacks

Nitrogen discharge targets (targets) are associated with groundwater protection requirements. These targets are an indicator of the amount of nitrogen that will not be used by a crop and is available for release to the environment, such as discharges groundwater or surface water. Targets are expressed as numeric values and are quantifiable milestones that must be achieved to avoid additional requirements. Exceeding a target will not result in Water Board enforcement; however, it could result in increased requirements until the target is achieved.

Limits are also expressed as numeric values and like targets are quantifiable milestones that must be achieved to avoid additional requirements. Unlike targets, exceeding a limit could result in enforcement. *Nitrogen discharge limits* are an indicator of nitrogen not used by a crop and discharged to groundwater. *Surface receiving water limits* are generally expressed as a concentration of a pollutant that must be achieved in a water body, often to achieve an approved total maximum daily load. *Fertilizer nitrogen application limits* are crop-specific numeric values of fertilizer nitrogen application.

Setbacks are a numerical distance measured away from a waterbody where specific activities affecting surface water quality, such as commercial agricultural activities, are not permitted.

Time Schedules

Time schedules define specific dates by which targets, limits, and setbacks must be complied with.

Groundwater Protection Requirements

This section provides an overview of the irrigation and nutrient management related requirements for groundwater protection.

As a reminder, all ranches are in one of three groundwater phase areas. The groundwater phase area of the ranch indicates when monitoring and reporting nitrogen applied and nitrogen removed must be tracked and reported; groundwater phase 1 begins before groundwater phase 2, and 2 begins before groundwater phase 3.

Irrigation and Nutrient Management Monitoring and Reporting

All ranches are required to develop and implement an irrigation and nutrient management plan, also known as an *INMP*. The grower uses their INMP to *track* applied nitrogen, removed nitrogen, and irrigation water information throughout the year to achieve the targets and limits. The grower reports the results to the Water Board in an annual *INMP Summary Report*.

Growers with ranches in groundwater phase 1 areas are required to submit their INMP Summary Report prior to growers with ranches in phase 2 and phase 3 areas.

Ranches that are not yet scheduled to track and report INMP Summary Report information are required to track and report total nitrogen applied, or TNA as it is referred to in Ag Order 3.0. Therefore, all ranches are either tracking and reporting

TNA, or the information for the INMP Summary Report. Eventually, all ranches are required to report the INMP Summary Report by March 1, 2027.

Targets and Limits

It is important to understand the nitrogen discharge formula used to assess compliance with the targets and limits for nitrogen discharge. The formula is:

$$A_{FER} + (C \times A_{COMP}) + A_{IRR} - R = \text{Nitrogen Discharge}$$

Where:

1. A_{FER} is the amount of nitrogen applied from fertilizer in pounds per acre.
2. C is a compost discount factor used to estimate the amount of nitrogen mineralized in the first year.
3. A_{COMP} is the amount of nitrogen applied from compost in pounds per acre.
4. A_{IRR} is the amount of nitrogen applied from irrigation water in pounds per acre.
5. R is the amount of nitrogen removed, such as from harvest, treatment, sequestration, or other methods.

The nitrogen discharge formula is often abbreviated as $A - R$, or applied nitrogen minus removed nitrogen, to describe the amount of nitrogen discharged to groundwater in terms of pounds of nitrogen per acre per year. The resulting annual $A - R$ reported by a ranch is compared to nitrogen discharge targets and limits, which are provided in Draft Ag Order 4.0, Table C.1-2, page 61.

When a grower tracks nitrogen applied and removed during the year, he/she should make adjustments in order to achieve the nitrogen discharge targets and limits – this is pathway 1 to achieve the nitrogen discharge goal. Pathway 2 is the option where the amount of applied nitrogen is equal to the removed nitrogen, or $A = R$. This equates to no new net nitrogen being discharged to groundwater. This option provides an alternative compliance pathway for growers that have high nitrogen concentration in their irrigation wells. This option incentivizes the pump-and-fertilize management practice to utilize nitrogen (i.e., nitrate) that is available in groundwater.

All ranches are required to comply with the fertilizer nitrogen application limits. These application limits are not phased in; they are effective one year after the Order is adopted. Staff will assess compliance with the fertilizer nitrogen application limits using the TNA and INMP Summary Reports submitted by growers. Fertilizer nitrogen application limits are provided in Draft Ag Order 4.0, Table C.1-1, page 61.

Groundwater Well Monitoring and Reporting

Growers must arrange for monitoring and reporting for on-farm domestic drinking water wells and irrigation wells and upload the data to the State Water Board's GeoTracker database, as has been the case for previous Agricultural Orders.

All domestic drinking water wells must be sampled once each year. This requirement is not phased in, and therefore goes into effect the same year the Order is adopted. The compound 1,2,3-trichloropropane (1,2,3-TCP) is included in the suite of required

monitoring constituents. Growers must notify domestic well users of all sampling results and health risks associated with elevated nitrate and 1,2,3-TCP concentrations. Growers must provide the Water Board with confirmation that domestic well users have been notified.

Requirements for reporting irrigation well data are dependent on a ranch's groundwater phase area. *All* irrigation wells must be sampled and analytical results reported annually once the INMP Summary Report is required. Ranches that are required to submit the less-comprehensive TNA report for a period of time are required to report analytical data from only the *primary* irrigation well. Recall that ranches in groundwater phase 1 areas are the first to report information in the INMP Summary Report. When ranches in groundwater phase 2 and 3 areas are scheduled to begin reporting via INMP Summary Reports, the grower must then begin reporting analytical data for *all* the irrigation wells, not just the primary irrigation well.

Groundwater Trend Monitoring and Reporting

All ranches are required to conduct groundwater trend monitoring and reporting in accordance with a *groundwater trend monitoring work plan* that must be submitted by due dates associated with a ranch's groundwater phase area. Development and implementation of a work plan can be done either individually or through a cooperative effort (i.e., a third party). If the grower chooses the individual compliance route, they must hire a qualified consultant to prepare and certify a groundwater trend monitoring work plan. If a grower chooses the cooperative route through a third party, the third party develops and submits the groundwater trend monitoring work plan to the Executive Officer for approval prior to implementation. In either case, groundwater trend monitoring work plans for ranches in groundwater phase 1 areas are required to be submitted before phase 2 area ranches, which must be submitted before phase 3 ranches.

Groundwater trend monitoring work plans could propose to use existing wells, new wells drilled for the purpose of trend monitoring, or a combination thereof. In any case, the groundwater trend monitoring work plan must justify that the proposed plan will adequately evaluate groundwater quality trends over time and assess the impacts of agricultural discharges. All work plans must include a sampling and analysis plan and quality assurance project plan.

Consequences of Not Complying

Individual growers not meeting the nitrogen discharge targets or limits may be required to complete ranch-level groundwater discharge monitoring and reporting, including the volume of water percolating through the soil and the concentration of relevant pollutants. The ranch-level groundwater discharge monitoring must demonstrate compliance with the targets and limits.

How to Determine Groundwater Protection Requirements for a Ranch

The Draft Ag Order 4.0 and corresponding Monitoring and Reporting (MRP) documents are arranged in sections, including a section titled Irrigation and Nutrient Management for Groundwater Protection. Growers and other interested parties should review these

sections for detailed information about the requirements discussed above. For a general understanding about these requirements, tables provided in the Draft Ag Order 4.0 and MRP are useful for planning purposes, as described below.

Staff will provide the ranch groundwater phase area on the ranch eNOI; alternatively, the grower can obtain the phase area for their ranch in Draft Ag Order 4.0, Table B-1, page 54. Once the grower determines their ranch phase, he/she can ascertain the ranch requirements in the following tables:

1. In MRP, Table MRP-10: TNA report and primary irrigation well monitoring and reporting requirements.
2. In MRP, Table MRP-11: INMP Summary Report and all irrigation well monitoring and reporting requirements.
3. In MRP, Table MRP-12: Domestic drinking water well monitoring and reporting requirements.
4. In MRP, Table MRP-13: Groundwater quality trend monitoring and reporting requirements.
5. In Draft Ag Order 4.0, Table C.1-1: Fertilizer nitrogen application limits.
6. In Draft Ag Order 4.0, Table C.1-2: Nitrogen discharge targets and limits with time schedule.

Note that requirements related to domestic drinking water well monitoring and reporting go into effect the year Ag Order 4.0 is adopted. In addition, ranches that were required in Ag Order 3.0 to conduct TNA monitoring and reporting must continue to do so. However, INMP Summary reporting, irrigation well monitoring and reporting, TNA reporting for groundwater phase 2 and 3 area ranches, fertilizer nitrogen application limits, and nitrogen discharge targets do not go into effect until a year after Ag Order 4.0 is adopted; this will give operators, technical assistant providers, third parties, and staff time to plan accordingly.

Surface Water Protection Requirements

This section provides an overview of the requirements for surface water protection.

As a reminder, all ranches are in one of four surface water priority areas. The surface water priority area indicates when a follow-up surface receiving water *workplan* must be submitted, as discussed below. Surface priority area 1 submits the workplan prior to priority area 2, which submits before priority area 3, and so on.

Draft Ag Order 4.0 outlines *three groups of requirements* for surface water protection: Irrigation and Nutrient Management for Surface Water Protection; Pesticide Management for Surface Water Protection; Sediment and Erosion Management for Surface Water Protection.

Each of the *three groups of requirements* for surface water protection requires that the grower develop and implement a corresponding plan. The plans are:

1. Irrigation and Nutrient Management Plan, or INMP, which is also used for nutrient management for groundwater protection.
2. Pesticide Management Plan, or PMP.
3. Sediment and Erosion Management Plan, or SEMP.

Growers must develop, implement and update as necessary a Farm Water Quality Management Plan, otherwise known as the Farm Plan. The Farm Plan is not submitted to the Water Board but must be made available up request.

The INMP, PMP and SEMP must be developed for each enrolled ranch and maintained as part of the ranch Farm Plan. They are submitted to the water board only upon request; however, an INMP *Summary* Report is submitted, as described in the groundwater section above. Each of the three reports must at a minimum include record keeping necessary to submit accurate reports and forms, such as the annual compliance form and the total nitrogen applied form, planning and management practice implementation that results in attaining surface water limits, descriptions of practices related to irrigation, nutrient, pesticide, sediment and salinity management practices.

Growers will report summary information from these Farm Plan sections in the annual compliance form on an annual basis. The annual compliance form is an electronic report that currently exists in GeoTracker.

Follow-up Surface Receiving Water Implementation

A Follow-up Surface Receiving Water Implementation Work Plan (Follow-up Work Plan) is required of *each ranch*. Follow-up Work Plans for ranches in areas not achieving surface water limits must identify actions to restore water quality. Follow-up Work Plans in areas already achieving surface water limits must identify actions to maintain protected water quality. The Follow-up Work Plan can be developed either individually, on a ranch basis, or cooperatively through a third-party effort. The Follow-up Work Plan must be designed to achieve and maintain surface water quality *limits* by identifying follow-up actions such as implementation of management practices, education, outreach, source identification where applicable, and follow-up surface receiving water monitoring above and beyond the core sites included in the surface water monitoring program (which is currently implemented by Preservation Inc.).

The time schedule for when Follow-up Work Plans are due is determined by the ranch surface water priority area. Reporting requirements for Follow-up Work Plans include annual reporting, as well as quarterly reporting of receiving water monitoring information.

Note that a single Follow-up Work Plan is developed to address multiple pollutants. In the case where a surface water is exceeding limits for nutrients and pesticides, the Follow-up Work Plan will focus on measures to address both types of pollutants and will also include measures for continued compliance with surface water quality limits already achieved.

Staff envision that third parties will assist in the development, implementation and tracking and reporting of Follow-up Work Plans. The Follow-up Work Plans will inform ranch Farm Plans, which include the INMP, PMP and SEMP. A watershed with one or more approved total maximum daily loads (TMDLs) might provide an opportunity for collaboration among growers through a third party.

Water Quality Limits in Surface Waters

Nutrient, pesticide, toxicity and sediment limits are based on approved total maximum daily loads (TMDLs) as well as water quality objectives in the Central Coastal Water Quality Control Plan, or Basin Plan. The Follow-up Work Plans must be designed and implemented to achieve the surface receiving water limits consistent with the compliance schedule outlined in the approved TMDL. In the absence of a TMDL, the surface receiving water limits must be achieved ten years after adoption of Ag Order 4.0.

Ranches using impermeable surfaces, such as plastic used to grow strawberries, have stormwater discharge limits; the SEMP should outline practices to achieve the limits.

Surface Receiving Water Monitoring and Reporting

All ranches must conduct surface receiving water monitoring and reporting; this is monitoring and reporting of surface water bodies, such as streams and rivers. This is done either individually or through a third-party cooperative effort. This monitoring and reporting requirement is equivalent to the monitoring and reporting currently conducted by Preservation Inc.'s Cooperative Monitoring Program (CMP). This monitoring effort, in conjunction with monitoring implemented as part of a Follow-up Work Plan, will be used to assess progress toward achieving surface receiving water limits. Staff anticipate that a third party will conduct this monitoring and reporting effort on behalf of growers during the implementation phase of Ag Order 4.0.

Consequences of Not Complying

Individual growers in areas not meeting the surface water protection limits according to the time schedules in Ag Order 4.0 may be required to perform *ranch-level* surface discharge monitoring and reporting, sometimes referred to as edge of field monitoring, to demonstrate their individual progress towards meeting the surface water protection limits. These growers could be required to complete discharge monitoring and reporting of the irrigation water and stormwater that leaves the ranch. Ranch-level surface discharge monitoring must demonstrate compliance with the limits in the individual ranch discharge.

How to Determine Surface Water Nutrient Protection Requirements for a Ranch

The Draft Ag Order 4.0 and the corresponding Monitoring and Reporting (MRP) documents provide detailed information about the surface water related requirements. For an overview of the requirements and associated schedules, the tables provided in the Draft Ag Order 4.0 and MRP are useful tools in understanding what is expected and when, as discussed below.

Staff will provide the surface water priority area on the ranch eNOI; alternatively, growers can obtain the priority area for their ranch from Draft Ag Order 4.0, Table B-2, page 54. Once the ranch priority is determined, the grower can ascertain the ranch requirements in the following tables:

1. In the MRP, Table MRP-14, page 53: Surface receiving water trend monitoring. Note that this is monitoring currently conducted by Preservation Inc.'s Cooperative Monitoring Program; staff anticipate continued third-party involvement during implementation of Ag Order 4.0.
2. In the MRP, Table MRP-15, page 54: Surface receiving water follow-up implementation work plan and reporting schedule; potentially a third-party activity.
3. In Draft Ag Order 4.0, Table C.2-1, page 62: Nutrient limits and corresponding time schedule (compliance date) for areas with an approved TMDL. The grower will need to know which watershed their ranch is in – staff will assist.
4. In Draft Ag Order 4.0, Table C.2-2, page 66: Nutrient limits and corresponding time schedule (compliance date) for areas without an approved TMDL.
5. In Draft Ag Order 4.0, Table C.3-1, page 68: Pesticide and toxicity limits and corresponding time schedule (compliance date) for areas with an approved TMDL. The grower will need to know which watershed their ranch is in – staff will assist.
6. In Draft Ag Order 4.0, Table C.3-2, page 73: Pesticide and toxicity limits and corresponding time schedule (compliance date) for areas without an approved TMDL.
7. In Draft Ag Order 4.0, Table C.4-1, page 76: Sediment limits and corresponding time schedule (compliance date) for areas with an approved TMDL. The grower will need to know which watershed their ranch is in – staff will assist.
8. In Draft Ag Order 4.0, Table C.4-2, page 76: Turbidity limits and corresponding time schedule (compliance date) for areas without an approved TMDL.
9. In Draft Ag Order 4.0, page 37: Stormwater discharge limits for ranches using impermeable surfaces.

Riparian Area Management Requirements for Water Quality Protection

Riparian areas are adjacent to rivers, streams, creeks, and other waterbodies where waters flow at least periodically. These areas are generally characterized by differences in plants compared to upland areas. Riparian areas play an important role in achieving numerous water quality objectives established in the Basin Plan. Riparian areas also protect many beneficial uses designated in the Basin Plan. Riparian areas protect water quality, regulate water temperature, and provide pollinator habitat, flood resilience, and groundwater recharge. Monitoring at key CMP sites indicate that riparian areas in commercial agricultural land use areas are typically in very poor condition.

All ranches with waterbodies within or bordering the ranch are subject to setback requirements. These ranches have one of two setback requirements: 1) a *riparian setback* for ranches in *riparian priority areas*; or 2) an *operational setback* for ranches outside riparian priority areas. Setback requirements are based on the location of the

farm, nature of the waterbody, and water quality monitoring data. Growers with ranches in riparian priority areas that implement on-farm riparian setbacks must develop and implement a Riparian Area Management Plan (RAMP) and retain it as part of their Farm Plan, and must include management practice implementation information, assessment analyses, monitoring activities (where appropriate).

Riparian Priority Areas

There are four *riparian priority areas*. Riparian priority areas are listed in the Draft Ag Order 4.0, Table B-3, page 55. Currently, growers can identify whether their farms are located in a riparian priority area by finding the waterbody adjacent to their farm on the interactive map found here:

<https://gispublic.waterboards.ca.gov/portal/apps/View/index.html?appid=02ac0fe36a544511b498783a8a9a585c>.

Reporting is due according to the riparian priority area, with riparian priority area 1 reporting prior to area 2, which reports prior to area 3, which reports prior to area 4. All ranches subject to the riparian area management requirements must document and report existing setback conditions (width and vegetation) and setback management practices in the Annual Compliance Form (ACF) beginning March 1, 2022, and report on the status of setback conditions annually thereafter.

Setbacks

An *operational setback* is required for all farms with waterbodies within or bordering the ranch that are not located in riparian priority areas. The operational setback must be at least one and a half times the width of the active channel for streams, and 35 feet for other waterbodies, such as wetlands. Operational setbacks do not require vegetation; however, certain activities are prohibited, such as commercial crop production, installation of permanent structures (e.g., building and roads), chemical storage, and operation of heavy machinery. The width from the waterbody of an operational setback is generally less than that required for a riparian setback. All farms must establish an operational setback by October 1, 2022; farms required to establish a riparian setback after this date must begin with establishing an operational setback.

Riparian setbacks are required for farms adjacent to a waterbody located in a riparian priority area. Riparian setbacks require vegetation. Ranches with waterbodies within or bordering the ranch in a riparian priority area choose from four compliance pathways:

1. **Cooperative Approach:** Join or form a third-party cooperative watershed restoration program. The restoration projects will be located off the farm, but within the watershed where the ranch is located.
2. **On-Farm Setback:** Meet the riparian setback width and vegetation requirements on the ranch, as listed in Tables C.5-1 and C.5-2 of the Draft Ag Order 4.0.
3. **Rapid Assessment:** Achieve the minimum agricultural reference site score through a rapid assessment conducted on the existing on-farm setback; rapid assessments are conducted by trained practitioners.

4. **Alternative Proposal:** Submit an alternative proposal to the executive officer for approval. The alternative proposal must demonstrate protection of surface water beneficial uses and provide the functions described in the RAMP requirements.

Activities in Setbacks

Activities allowed in setbacks includes conservation of soil, vegetation, water, fish, shellfish, and wildlife, control of invasive species, and emergency work necessary for protection of public health or safety.

Activities not allowed in setbacks include the introduction of invasive species, commercial crop production, installation of permanent structures, storage of chemicals, materials, equipment, or trash, application of chemicals (including fertilizers and pesticides), operation of heavy equipment, and removal of existing, naturally occurring native riparian vegetation.

Exemptions

There are exemptions of setback requirements under certain circumstances, including: 1) an existing state or federal agency approved restoration/conservation plan; 2) manmade barriers; 3) legally binding easements; and 4) permanent structures. Riparian setback requirements may be clarified or changed upon request (with supporting documentation).

How to Determine Riparian Area Management Requirements for a Ranch

The Draft Ag Order 4.0 and the corresponding Monitoring and Reporting Program (MRP) documents provide detailed information about the riparian area management requirements. For an overview of the requirements and associated schedules, key areas in the Draft Ag Order 4.0 and MRP are useful tools in understanding what is expected and when, as described below.

1. For ranches with a waterbody within or bordering the ranch that are located in a riparian priority area, the ranch eNOI will indicate the waterbody name (if one exists), the riparian priority area, the Strahler stream order or wetland type, and the riparian setback requirement. There are four compliance pathways to meet the riparian area management requirements:
 - a. In MRP, Table MRP-17, page 54: Cooperative approach compliance pathway. Dischargers that choose this compliance pathway are not required to have an on-farm riparian setback but are required to have an operational setback.
 - b. In MRP, Table MRP-18, page 54: On-farm riparian setback compliance pathway. A riparian area management plan (RAMP) is required in the Farm Plan.
 - c. In MRP, Table MRP-19, page 55: Rapid assessment of existing on-farm riparian setback compliance pathway. A riparian area management plan (RAMP) is required in the Farm Plan.
 - d. In MRP, Table MRP-17, page 55: Alternative on-farm setback proposal compliance pathway. A riparian area management plan (RAMP) is required in the Farm Plan.

2. For ranches with a waterbody within or bordering them that are not located in a riparian priority area, the ranch eNOI will indicate that the ranch is not in a riparian priority area and the operational setback requirement required. A riparian area management plan (RAMP) is required in the Farm Plan.
3. For ranches that do not have a waterbody within or bordering them, no riparian or operational setback is required. A riparian area management plan (RAMP) is not required in the Farm Plan. This will be indicated on the ranch eNOI.

SUMMARY OF DRAFT ENVIRONMENTAL IMPACT REPORT

The Draft Environmental Impact Report (DEIR) is prepared to comply with CEQA and describes the potential environmental impacts associated with the implementation of Ag Order 4.0. The DEIR presents an analysis of alternatives to the proposed project, including: 1) no project alternative, 2) agricultural organization alternative, and 3) environmental advocate alternative.

CEQA Background

Draft Ag Order 4.0 (Proposed Project) must comply with the California Environmental Quality Act of 1970 (CEQA).¹ The Water Board is the lead agency for the Proposed Project and has the principal responsibility for preparing the appropriate CEQA documentation.

CEQA's basic purposes are to:

- Inform governmental decision-makers and the public about the potential significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or substantially reduced;
- Prevent significant, avoidable damage to the environment by requiring the implementation of feasible mitigation measures or alternatives that would substantially lessen any significant effects that a project would have on the environment; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Development of Draft Environmental Impact Report

Horizon Water and Environment, LLC (Horizon) and Central Coast Water Board staff prepared a draft environmental impact report (DEIR) to provide the public and other agencies with information about the potential environmental effects of the Proposed Project. The DEIR can be viewed at the following web site:

¹ As amended; California Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations [CCR], Section 15000 et seq.

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/ag_order4_renewal/2020march/deir.pdf

Staff released a notice to the Water Board's Ag Order 4.0 interested parties list and published the DEIR online February 21, 2020. This initiated the public comment period. Staff sent the State Clearinghouse a Notice of Completion on February 24, 2020, which identified that an environmental document was available for review.

When this Project began in June 2017, staff notified the appropriate California Native American Tribes of the Water Board's intention to commence work on Agricultural Order 4.0 in compliance with AB 52. Staff solicited additional outreach with 27 tribes and individuals in the central coast region in December 2018.

Staff published an Initial Study in February 2018. Publishing an Initial Study is not required if the lead agency will be preparing an environmental impact report (EIR), however, staff determined that writing an Initial Study would provide the public with an early opportunity to see where potential impacts may occur. Additionally, an Initial Study would provide more context to the public for discussion during the four outreach meetings held throughout the central coast region in March 2018.

The public comment period for the Initial Study closed at the end of April 2018. Grower-Shipper, *et al*; California Department of Fish and Wildlife; and the California Farm Bureau Federation submitted comments. These comments were considered in developing Agricultural Order 4.0 and the DEIR. Two project alternatives were also submitted during this time by Grower-Shipper, *et. al* (Agricultural Organization Alternative) and by The Otter Project and California Coastkeeper Alliance (Environmental Advocate Alternative).

Horizon began working with the Central Coast Water Board in March 2018, under a contract with the Department of General Services, to draft the DEIR. Horizon worked closely with Central Coast Water Board staff over the next two years researching, developing, and preparing the DEIR.

Impacts Identified

The DEIR identified that significant and unavoidable impacts would occur in agriculture resources. Specifically, the Proposed Project, in this case Ag Order 4.0, would result in:

- converting Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use, and
- conflict with existing zoning for agricultural use, or a Williamson Act contract.

Other potentially significant effects identified for the Proposed Project (largely related to construction-related effects during construction/installation of management practices) could be reduced to less than significant with implementation of mitigation measures.

Alternatives Considered

The purpose of the alternatives analysis in an EIR is to describe a reasonable range of potentially feasible alternatives to a Proposed Project that could attain most of the objectives of the Proposed Project while reducing or eliminating one or more of the Proposed Project's significant effects. The following alternatives were evaluated for their potential feasibility and their ability to achieve most of the Proposed Project objectives while avoiding or reducing significant impacts identified for the Proposed Project:

- No Project Alternative (continuation of Ag Order 3.0)
- Agricultural Organization Alternative, submitted April 2018
- Environmental Advocate Alternative, submitted April 2018

The No Project Alternative was determined to be legally infeasible and inadequately protective of water quality. While the Agricultural Organization Alternative and Environmental Advocate Alternative could each reduce some potential impacts of the Proposed Project, they also would not achieve the same level of water quality benefits or be environmentally superior.

Considering all the relevant factors as detailed in the DEIR, staff found that Agricultural Order 4.0 best accomplishes the water quality goals of Central Coast Water Board, while minimizing environmental impacts to the extent possible.

DRAFT AG ORDER 4.0 CONSISTENCY WITH LEGAL AND POLICY REQUIREMENTS

Nonpoint Source Policy

The following information was provided in the staff report for item 5 of the November 8-9, 2018 board meeting agenda; the information remains relevant to this item and is provided here again for reference.

Findings related to the Nonpoint Source Policy are found in Draft Ag Order 4.0 Attachment A – Findings (see pages 30 – 45, findings 36 – 72) which can be reviewed at the following website:

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/ag_order4_renewal/2020feb/dao_attachment_a_findings.pdf

The Policy for Implementation and Enforcement of the Nonpoint Source (NPS) Pollution Control Program (NPS Policy)² is a State Board regulation requiring all regional boards to regulate nonpoint sources of pollution, including agricultural discharges. The NPS Policy states that implementation programs for NPS pollution control must include five key elements, which are restated in relevant part:

² The Nonpoint Source Policy can be found online at https://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/nps_ie_policy.pdf

1. “KEY ELEMENT 1: An NPS control implementation program’s ultimate purpose shall be explicitly stated. Implementation programs must, at a minimum, address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements.”
2. “KEY ELEMENT 2: An NPS control implementation program shall include a description of the MPs [management practices] and other program elements that are expected to be implemented to ensure attainment of the implementation program’s stated purpose(s), the process to be used to select or develop MPs, and the process to be used to ensure and verify proper MP implementation. The RWQCB must be able to determine that there is a high likelihood that the program will attain water quality requirements. This will include consideration of the management practices to be used and the process for ensuring their proper implementation.”
3. “KEY ELEMENT 3: Where the RWQCB determines it is necessary to allow time to achieve water quality requirements the NPS control implementation program shall include a specific time schedule, and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements.”
4. “KEY ELEMENT 4: An NPS control implementation program shall include sufficient feedback mechanisms so that 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.”
5. “KEY ELEMENT 5: Each RWQCB shall make clear, in advance, the potential consequences for failure to achieve an NPS control implementation program’s stated purposes.”

Staff followed the key elements of the NPS Policy when developing the Draft Ag Order 4.0. Based on the NPS Policy, required elements for an order that regulates NPS discharges are quantifiable milestones, such as the targets and limits incorporated in Draft Ag Order 4.0 (see key elements 1 and 3); a time schedule, such as the time schedules to achieve targets and limits incorporated in Draft Ag Order 4.0 (key element 3); and a process for ensuring proper implementation of management practices as well as feedback mechanisms, i.e., monitoring and reporting (key elements 2 and 4). Concepts for potential consequences (key element 5) are also incorporated into Draft Ag Order 4.0, such as the potential for on-farm individual monitoring, that could be triggered when limits are not achieved on schedule.

Discussion of the NPS Policy often involves discussion of management practice (MP) implementation. Within its discussion of key element 2, the NPS Policy states, “Although MP implementation never may be a substitute for meeting water quality requirements, MP implementation assessment may, in some cases, be used to measure nonpoint source control progress.” The NPS Policy further states “MP implementation, however,

may not be substituted for actual compliance with water quality requirements.” While the NPS Policy acknowledges the importance of management practice implementation in achieving water quality outcomes, it precludes an NPS Order from relying on management practice implementation as a substitute for measuring water quality and achieving the quantifiable water quality requirements/limits that must be established as described in key element 3. That is, the focus of the requirements should be on improving the quality of the NPS discharges such that these discharges ultimately do not impair the quality of the receiving waters or the associated beneficial uses.

The NPS Policy provides that “the most successful control of nonpoint sources is achieved by prevention or by minimizing the generation of NPS discharges.” Staff has addressed this in the Draft Ag Order 4.0. For example, pathway 2 to achieve the nitrogen discharge limit results in minimizing the discharge of new nitrogen (i.e., fertilizer nitrogen) to the environment by incentivizing the use of nitrogen already present in the aquifer.

The NPS Policy requires the inclusion of the potential consequences for failure to comply with the NPS control implementation program. Examples of consequences include individual ranch level limits (sometimes referred to as edge-of-field limits) that could be invoked when limits are not achieved in receiving waters, such as creeks and rivers. The numeric limits, such as fertilizer application limits and nitrogen discharge limits, are enforceable limits for which a regulatory consequence is an option if these limits are not met.

Antidegradation Policy

The Antidegradation Policy³ requires that the Water Boards maintain high quality waters of the state unless they determine that any authorized degradation is: a) consistent with maximum benefit to the people of the state, b) will not unreasonably affect present and anticipated beneficial uses, and c) will not result in water quality less than that prescribed in state and regional policies. Draft Ag Order 4.0 is consistent with the Antidegradation Policy.

Findings related to the Antidegradation Policy are found in Draft Ag Order 4.0 Attachment A – Findings (see pages 45 – 64, findings 73 – 142) which can be reviewed at the following website:

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/ag_order4_renewal/2020feb/dao_attachment_a_findings.pdf

Finding 103 summarizes the goals of Draft Ag Order 4.0, with respect to compliance with the Antidegradation Policy. Finding 103 states: “This order protects beneficial uses by meeting water quality objectives, at a minimum, which is set as the floor of the Antidegradation Policy; no degradation is allowed below this floor in this Order. Additionally, this Order requires that high quality waters, where currently identified to

³ The Antidegradation Policy can be found online at:

https://www.waterboards.ca.gov/plans_policies/antidegradation.html

exist, be maintained. Waste discharges must be reduced and water quality improved, as defined in the time schedules of this order, to achieve water quality objectives and protect beneficial uses. Time schedules for quantifiable milestones, including time schedules for targets and numeric limits for nitrogen; time schedules for numeric limits for pesticides and toxicity; time schedules for numeric limits for sediment; and time schedules for riparian setbacks will ensure that water quality objectives are achieved and beneficial uses are protected. This Order does not require that high quality waters, as defined by the Antidegradation Policy and determined by an antidegradation baseline analysis, be restored to the best water quality since 1968. However, the Central Coast Water Board will consider this approach as part of future iterations of its agricultural order process.”

Eastern San Joaquin River Watershed Agricultural Order

The following information was provided in the staff report for item 5 of the November 8-9, 2018 board meeting agenda; the information remains relevant to this item and is provided here again for reference.

Findings related to the Eastern San Joaquin River Watershed Agricultural Order are found in Draft Ag Order 4.0 Attachment A – Findings (see pages 66 – 77, findings 157-174) which can be reviewed at the following website:

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/docs/ag_order4_renewal/2020feb/dao_attachment_a_findings.pdf

In 2012, the Central Valley Water Board adopted waste discharge requirements (WDRs) for waste discharges from irrigated lands in the Eastern San Joaquin River Watershed. The State Water Board reviewed the adopted order and subsequently adopted a modified order in February 2018. The State Water Board’s order is referred to as the Waste Discharge Requirements for Growers Within the Eastern San Joaquin River Watershed Order, or ESJ Order (State Board Order WQ 2018-0002).⁴ The State Board established several requirements in the ESJ Order as being precedential for all Irrigated Lands Regulatory Programs (ILRPs) statewide and directed all ILRPs to incorporate the precedential elements into their orders regulating waste discharges from irrigated lands within the next five years.

Some portions of the ESJ Order apply specifically to the ESJ watershed. Other portions that are defined as precedential statewide are described as such in the order. In the ESJ Order, the State Board acknowledges that “generally, State Water Board petition orders are precedential unless otherwise designated...here, because of the significant variation in agricultural practices statewide, automatic application of all requirements endorsed in this order to all of the agricultural discharge programs statewide is inappropriate.” The precedential elements, as described in the ESJ Order, are listed below.

⁴ The Eastern San Joaquin Order can be found online at:

https://www.waterboards.ca.gov/public_notices/petitions/water_quality/a2239_sanjoaquin_ag.shtml

Outreach, management practices, recordkeeping

1. Participation by all growers in outreach events. The regional water boards have discretion over the precise form and frequency of the outreach events (pages 27-28 of ESJ Order).
2. Submission by all growers of management practice implementation information (page 29 of ESJ Order).
3. Submission of grower-specific field-level management practice implementation data to the regional water board shall be precedential statewide (page 32 of ESJ Order).
4. Recordkeeping requirement of ten years for all third-parties (page 53 of ESJ Order).

Sediment and erosion control

5. Implementation of sediment and erosion control practices by growers with the potential to cause erosion and discharge sediment that may degrade surface waters. The regional water boards shall continue to have discretion as to how these practices are documented and reported (page 32 of ESJ Order).

Irrigation and Nutrient Management Plan

6. Incorporation of irrigation management elements into nitrogen management planning (page 35 of ESJ Order).
7. For those irrigation and nitrogen management plans that the regional water boards require to be certified, the certification language shall be precedential (page 36 of ESJ Order).
8. Submittal by all growers of summary data from the irrigation and nitrogen management plans. The regional water boards have discretion as to whether to require certification of all growers or just a subset of growers based on a risk categorization (page 36 of ESJ Order).

Reporting of Nitrogen Applied (A) and Nitrogen Removed (R)

9. Field-level AR⁵ data submission to the regional water board consistent with the data sets and analysis of those data sets described in the ESJ Order. The regional boards have the discretion to require additional data related to irrigation and nitrogen management (page 51 of ESJ Order).
10. Calculation of annual and multi-year A/R ratio and A-R difference parameters for each grower by field, except as described in items 1-3 (pages 40-41 of the ESJ Order).
11. Use of coefficients for conversion of yield to nitrogen removed values. The regional water boards will have discretion to determine the number of crops to be

⁵ AR refers to nitrogen applied from all sources (A) and nitrogen removed (R)

analyzed and the timeline for development of the coefficients (page 42 of the ESJ Order).

12. Requirement for the third party to follow up with and provide training for AR data outliers and for identification of repeated outliers, except that the regional water boards will be responsible for the follow up and training for irrigated lands regulatory programs that directly regulate growers without a third-party intermediary (page 53 of the ESJ Order).

Exemptions

13. State Board recognizes that there may be categories of uniquely-situated growers for whom the specific nitrogen management requirements made precedential in sections of the ESJ Order are unnecessary because the applied nitrogen is not expected to seep below the root zone in amounts that could impact groundwater, and is further not expected to discharge to surface water. These criteria for determining categories of growers that may be exempted from the nitrogen management requirements via a demonstration to the regional board are also precedential statewide (page 33 of the ESJ Order).

Groundwater Protection Requirements

14. Development of the Groundwater Protection Formula, Values, and Targets. In areas of the state with third parties, the third parties may take the lead in developing the methodology. In other areas, the regional water boards shall take the lead. In all cases, the development of the methodology and approval by the regional water boards' executive officers shall be subject to public review and comment (page 66 of the ESJ Order).

Groundwater Monitoring

15. The requirement for on-farm drinking water supply well monitoring. The regional water boards have the discretion to require sampling at a frequency that is similar, but not necessarily identical, to the frequency specified in the ESJ Order (page 62 of the ESJ Order).
16. Groundwater quality trend monitoring. The specific requirements and the monitored constituents specified in the General WDRs shall not be precedential (page 64 of the ESJ Order).

Staff has incorporated the precedential elements outlined in the ESJ Order in the Draft Ag Order 4.0. Draft Ag Order 4.0 uses the flexibility afforded to the regional boards through the ESJ Order but does not include requirements that are inconsistent with the minimum precedential requirements established through the ESJ Order.

Human Right to Water

California Water Code section 106.3, subdivision (a) states that it is "the established policy of the state that every human being has the right to safe, clean, affordable, and

accessible water adequate for human consumption, cooking, and sanitation purposes.” On January 26, 2017, the Central Coast Water Board adopted Resolution No. R3-2017-0004, which affirms the realization of the human right to water and the protection of human health as the Central Coast Water Board’s top priorities.

Draft Ag Order 4.0 is consistent with R3-2017-0004 by requiring nitrogen discharge loading to groundwater and surface water be reduced to a level protective of the municipal and domestic supply beneficial use, which includes drinking water use. Draft Ag Order 4.0 establishes numeric targets and limits for nitrogen discharge, with a corresponding time schedule, developed to comply with the maximum contaminant level of nitrate in groundwater and surface water. Additionally, annual monitoring of domestic drinking water wells is required to assess and protect the threat to human health from contaminated domestic drinking water wells.

Disadvantaged Communities

The Central Coast Water Board implements regulatory activities and water quality projects in a manner that ensures the fair treatment of people of all ethnicities, cultures, backgrounds and income levels, including disadvantaged communities (DACs). Additionally, the Central Coast Water Board is committed to providing all stakeholders the opportunity to participate in the public process and provide meaningful input to decisions that affect their communities.

DACs in the Draft Ag Order 4.0 project area are affected by commercial irrigated agriculture. People living in DACs might be employed in the agricultural industry, which they rely on for income. Draft Ag Order 4.0 will increase cost for agricultural production, which could affect income in DACs; for example, wages could be affected by reductions in gross income to farm operations. However, an estimate of the impact to the income of people living DACs, resulting from Draft Ag Order 4.0, would be highly speculative.

People living in DACs may also need to purchase, or secure by some other means, safe and affordable drinking water due to domestic drinking water well contamination. One of the goals of Draft Ag Order 4.0 is to reduce nitrate loading to groundwater to a point where groundwater is safe to drink; this may take decades in many areas, but ultimately, the cost of replacement water should be reduced as water quality improves.

There are thousands of people that rely on drinking water from self-supplied households and local small water systems. Many systems currently treat contaminated water for elevated nitrate; some of these are located in DACs (see section titled Social and Environmental Costs, in Attachment A, Findings of Draft Ag Order 4.0, beginning on page 55). The cost of treatment could be reduced as groundwater quality is improved through the implementation of Draft Ag Order 4.0.

Climate Change

The Central Coast region faces the threat and the effects of climate change for the foreseeable and distant future. To proactively prepare and respond, Central Coast Water Board staff has launched the Central Coast Water Board’s Climate Action

Initiative, which identifies how its work relates to climate change and prioritizes actions that promote adaptation and mitigation to improve resilience and protect beneficial uses. The Climate Action Initiative is consistent with the Governor's Executive Order B-30-15 and the State Water Board's Climate Change Resolution No. 2017-0012.

Climate change could affect the assimilative capacity of receiving waters. For example, increased intensity of rain events, relative to historical intensity, could result in reduced groundwater recharge and surface water base flow. This in turn could affect the pollutant loading allowed to achieve water quality objectives. Draft Ag Order 4.0 requires that high quality waters be maintained but does not require that the best water quality since 1968 be achieved. Draft Ag Order 4.0 aims to ensure that water quality objectives are achieved, which is the floor, or minimum water quality protection consistent with the Antidegradation Policy. The targets, limits and associated time-schedules are intended to achieve water quality objectives and are not an end in themselves; associated trend monitoring is required to assess progress in achieving water quality objectives. Therefore, uncertainties related to climate change, and how climate change could affect progress towards achieving water quality objectives, are addressed in Draft Ag Order 4.0. They are accounted for because 1) the water quality goals are established as the minimum allowed, and 2) progress is ultimately determined by the water quality itself.

Sea level rise could impact some farms. Some farming operations are located near the coastline and could be impacted by sea level rise. Many more farms rely on groundwater in coastal areas, which could be affected by sea level rise. Draft Ag Order 4.0 will not rectify these potential issues, nor will it exacerbate them. Farms located in riparian priority areas may increase on-farm riparian vegetation. Native vegetation in riparian areas could increase base flow in waterbodies, which could help mitigate seawater intrusion. Draft Ag Order 4.0 could result in less groundwater pumping in order to achieve groundwater and surface water targets and limits; less pumping could help mitigate seawater intrusion.

PUBLIC COMMENTS

Staff solicited written public comments on Draft Ag Order 4.0 and the Draft Environmental Impact Report (DEIR) for the regulation of waste discharges from irrigated lands. Interested parties were able to submit their comments from February 21, 2020 to June 22, 2020 (a 122-day public comment period; the public comment period was extended twice during the initial stages of the COVID-19 pandemic in acknowledgment of stakeholders' diminished ability to effectively engage in the public process during the crisis). The following is a general overview of the comments received. Staff responses to comments will be generated as part of the next steps in the order development and adoption process; the September workshop is intended to receive and discuss additional oral comment.

Staff received a total of 3,745 comment letters before the close of the comment period, including two comment letters that identified alternative requirement concepts. Below is a summary of the number of comments received by source type.

- 3,582 letters from the general public (3,578 letters were a similar form letter)
- 95 letters from farming operations
- 60 letters from non-governmental organizations (e.g., agriculture, environmental, and environmental justice organizations)
- 8 letters from governmental organizations and elected officials, including: U.S. Fish and Wildlife Service; State of California Department of Fish and Wildlife; U.S. Department of Agriculture -Natural Resources Conservation Service; U.S. Department of Commerce - National Oceanic and Atmospheric Administration; California Strawberry Commission; Monterey County Board of Supervisors; City of King; Assemblyman Jordan Cunningham.

Three comment letters from individual growers were received after the comment deadline.

Please note that on the September 10-11, 2020 meeting days, stakeholders will have an opportunity to present an overview of their general comments and alternative requirement concepts.

All written comments received are currently available online download and review at: <https://ftp.waterboards.ca.gov/WebInterface/login.html>

Username: rb3agorder4 and *Password:* fP9aNr

Below is an outline synopsis of the most commonly reoccurring comments that were received during the Draft Ag Order 4.0 and DEIR written public comment period. A list of the commenters is provided as Attachment 2.

Irrigation and Nutrient Management for Groundwater Protection

- Support / oppose nitrogen discharge limits
- Nitrogen removal conversion coefficients need to be developed prior to establishing nitrogen discharge limits
- Support / oppose the fertilizer nitrogen application limits
- Incentivize organic farming and cover crops
- Support / oppose the compost discount factor

Irrigation and Nutrient Management for Groundwater Protection (Monitoring)

- Groundwater monitoring and reporting objectives need to be clearly stated
- Support for groundwater trend monitoring on a large scale versus the ranch level
- Stand-alone irrigation well-monitoring and reporting is redundant with trend monitoring and TNA/INMP reporting
- Support for the attention to environmental justice concerns (especially human right to water)
- All groundwater monitoring and reporting requirements should be the same as those included in the Eastern San Joaquin River Watershed order
- Criteria is needed for when pesticide monitoring and reporting would be required

Irrigation and Nutrient Management for Surface Water Protection

- Nutrient limits are not protective enough, do not protect beneficial uses
- Collection of evapotranspiration data is burdensome on growers and staff
- Monitoring and reporting of surface water discharges is too difficult

Pesticide Management for Surface Water Protection

- Pesticides limits are too high / too low
- Time schedules to achieve limits for pesticides and toxicity are too long / too short
- Discharge limits for pesticides will be difficult to achieve
- Pesticide monitoring frequency is insufficient
- Proposed requirements may result in a prohibition of pesticide use

Sediment and Erosion Management for Surface Water Protection

- Incentivize low risk farms by reducing requirements
- Impermeable surfaces requirements discourage the production of berries and crop rotations
- Stormwater monitoring and reporting is too difficult
- Sediment (TMDL) limits are too low
- Sediment and erosion management should only apply to erosion vulnerable areas

Riparian Area Management for Water Quality Protection

- Requirements are burdensome, too difficult, infeasible, and ambiguous
- Setback requirements are inconsistent with regional board's legal authority
- Incentivize alternative compliance pathways (low risk vineyards / small farms)
- Setbacks are too wide / too short, time schedules are too long / too short
- Conflicts with food safety measures

Cost Considerations

- Requirements will result in significant economic impacts
- Setback requirements will result in acreage taken out of production
- Costs are underestimated / cumulative regulatory costs are not considered
- Consider delaying adoption due to COVID-19 impacts
- Requirements disproportionately impact small farms

Draft Environmental Impact Report

- See *Cost Considerations* / DEIR lacks an analysis of the social benefits; cost benefit analysis recommended
- Farmland acreage taken out of production is underestimated and setback requirements may conflict with laws, plans, policies / support for setback requirements

- Consider impacts to special status species and include additional mitigation measures
- Cumulative impacts should be identified as significant; costs are cumulative.
- Consider the Agricultural Organization Alternative
- Increased wildfire risk due to new riparian habitat

NEXT STEPS AND PLANNING

The next steps and timing for the development and adoption of Ag Order 4.0 are uncertain and will depend on a number of factors including but not limited to: the ability to complete the four day workshop as proposed above, the nature and extent of the board's direction to staff regarding how to proceed with the draft order, staff's ability to implement the board's direction within the confines of the requisite administrative, technical and public process and associated timeframes, future Water Board public meetings schedule, and the ability meet the January 31, 2021 court ordered date to adopt Ag Order 4.0 or otherwise secure a court approved extension or extensions.

The four primary potential options moving forward in order of the increasing amount of time it will take to adopt Ag Order 4.0 generally include: 1) proceeding with the draft order as a proposed order with only minor changes and no additional public comment period, 2) proceeding with the draft order as a proposed order with significant changes requiring an additional public comment period, 3) developing a revised draft order requiring additional public comment and future board discussion before proceeding with a proposed order, and 4) continuation of the September workshop to a later date for the board to complete its public deliberation of the draft order before providing direction to staff regarding how to proceed.

If the board directs staff to incorporate significant changes to Draft Ag Order 4.0, an additional public comment period likely will be necessary prior to the adoption hearing; in this case, a revised or proposed Draft Ag Order 4.0 will be made available for another round of written public comment and additional oral public comment will be part of any subsequent meetings leading up to and including the final adoption hearing. Staff anticipates knowing whether another written public comment period will be necessary after receiving direction from the board during the September workshop or later if the workshop is extended. Staff will provide formal responses to the public comments received in response to Draft Ag Order 4.0 and DEIR as part of the next steps for the development and adoption of a proposed order.

ATTACHMENTS

1. Key to Requirements in Draft Ag Order 4.0 Documents
2. List of Commenters

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