



CALIFORNIA FARM BUREAU FEDERATION

NATURAL RESOURCES AND ENVIRONMENTAL DIVISION

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Via US Mail and Email

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Jeffrey S. Young, Chairman of the Board
Roger Briggs, Executive Officer
California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

Re: *Draft Central Coast Agriculture's Alternative Proposal for the Regulation of Discharges from Irrigated Agricultural Lands*

Dear Mr. Young and Mr. Briggs,

Please find the attached Draft Central Coast Agriculture's Alternative Proposal for the Regulation of Discharges from Irrigated Agricultural Lands submitted in response to the Central Coast Regional Water Quality Control Board's "Draft Agricultural Order, Draft Monitoring and Reporting Program, Staff Report, and Subsequent Environmental Impact Report for the Regulation of Waste Discharge from Irrigated Lands" released on November 15, 2010. This Draft Agricultural Proposal is submitted on behalf of 7 County Farm Bureaus, as well as numerous additional entities listed at the conclusion of the proposal. Given the draft nature of this agricultural proposal, the agricultural community respectfully requests future and continuing collaboration with Regional Board staff and Board members as a new discharge program is developed.

Sincerely,

Karl E. Fisher
Associate Counsel

cc w/attachments: John H. Hayashi, Board Member
David T. Hodgin, Board Member
Dr. Monica S. Hunter, Board Member
Russell M. Jeffries, Vice Chairman of the Board
Gary C. Shallcross, Board Member
Tom P. O'Malley, Board Member
Roger Briggs, Executive Director

**Draft Central Coast Agriculture's Alternative Proposal for the Regulation of
Discharges from Irrigated Agricultural Lands
December 3, 2010**

Purpose of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Agriculture Lands:

This Alternative Proposal presents an approach for regulating discharges from irrigated agricultural lands through the adoption of a Conditional Waiver of Waste Discharge Requirements, as authorized by Water Code section 13269, which requires dischargers who obtain coverage under the waiver to, in part,

- (1) Participate in a region-wide monitoring program that will conduct monitoring and report annually on monitoring results, including the identification of water quality benchmark exceedances;
- (2) Develop a confidential, proprietary farm water quality management plan (Farm Plan), which identifies management practices that will address water quality benchmark exceedances that stays on the farm;
- (3) Complete a Farm Water Quality Survey and submit it to the Regional Board;
- (4) Verification review of a statistically significant sample of Farm Water Quality Surveys per year by a third-party entity or the Regional Board to determine where educational and management practice implementation efforts should be focused;
- (4) Implement the Farm Plan and management practices to improve water quality; and
- (5) Assess the effectiveness of implemented agricultural management practices in attaining water quality benchmarks and, when necessary to attain water quality benchmarks, and identify, implement, or upgrade management practices.
- (6) Participate in the Ag Water Quality Coalition or conduct individual on-farm monitoring, if applicable.

This Proposal sets forth conditions that apply to discharges of waste from irrigated agricultural lands. This conditional waiver of waste discharge requirements constitutes the Central Coast Region Irrigated Lands Regulatory Program.

Legal and Regulatory Considerations:

Water Code section 13260(a)(1) requires that any person discharging waste or proposing to discharge waste within the Regional Board's jurisdiction that could affect the quality of the waters of the state, shall file a Report of Waste Discharge (ROWD) with the Regional Board. The Regional Board may, in its discretion, issue Waste Discharge Requirements (WDRs) pursuant to Water Code section 13263(a). Water Code section 13269 authorizes the Regional Board to conditionally waive provisions of Water Code sections 13260(a)(1) and 13263(a) as to a specific discharge or type of discharge.

Water Code section 13269 requires that any waiver of ROWDs and/or WDRs (Conditional Waiver) must (i) be consistent with any applicable water quality control plans (basin

plans); (ii) be “in the public interest;” (iii) contain conditions; (iv) expire after a five year term, but may be renewed in five-year increments; and (v) include monitoring provisions. In addition, Water Code section 13269(a)(4)(A) authorizes the State Water Resources Control Board (State Water Board) to adopt annual fees for recipients of waivers. Water Code section 13269(e) mandates that the Regional Water Boards shall require compliance with the conditions of a waiver of waste discharge requirements.

All requirements for monitoring and reporting are established pursuant to Water Code sections 13267 and 13269. These monitoring and reporting requirements are necessary to evaluate the following: (1) compliance with the terms and conditions of this Conditional Waiver of waste discharge requirements for discharges from irrigated agriculture lands; (2) the effectiveness of any measures or actions taken pursuant to this Conditional Waiver (including water quality management plans); and (3) whether revisions to this Conditional Waiver and/or additional regulatory programs or enforcement actions are warranted. Pursuant to Water Code section 13267, the Regional Board’s request for a monitoring program and reports shall bear a reasonable relationship to the burden and need for the report and the benefits to be obtained from the reports. The burden for providing the reports includes costs. Further, when requiring such reports, the Regional Board is required to provide a written explanation with regard to the need and shall identify the evidence that supports the requirement.

Water Code section 13141 states that prior to the implementation of any agricultural water quality control program, an estimate of the total cost of such a program and potential sources of financing must be indicated in any regional water quality control plan. To assist the Regional Board in considering the economic impacts of this action, the Regional Board will consider the estimated costs to Growers to implement this agricultural water quality control program in order to protect water quality consistent with section 13141 of the California Water Code. The Regional Board will also identify potential sources of funding in the Basin Plan.

Legal and Regulatory Rationale for Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Agriculture Lands:

Agricultural discharges, in conjunction with additional sources, contribute to some impaired water quality water segments, which may impact beneficial uses such as, drinking water supplies, aquatic life, agricultural use, and water resources. If additional steps to protect water quality and beneficial uses are not taken, costs and further impacts associated with these resources are likely to increase. Addressing agricultural water quality issues will likely benefit public health, present and future drinking water supplies, aquatic life, aesthetic, recreational, agricultural, and other beneficial uses. Addressing agricultural water quality issues may require changes in certain farming practices, may impose increased costs to individual farmers and the agricultural industry during a time of competing demands on farm income, regulatory compliance efforts, and food safety challenges, therefore potentially impacting the local economy.

Protecting water quality and the environment while protecting agricultural benefits and interests will require reasoned regulation, and increased farm management to achieve reasonable water quality benefits. These regulatory impacts can be reduced through the use of thorough analysis of relevant data, the establishment of reasonable requirements and time schedules, collective group actions and by providing flexibility with respect to how individual farmers can work towards meeting water quality standards through implementation of their individual Farm Plans. To prevent further water quality impairment and impact to beneficial uses, the Central Coast Water Board adopts this feasible, achievable, and reasonable regulatory waiver, which will result in measurable improvements in agricultural water quality discharges on the Central Coast by directly addressing the major water quality issues of toxicity, nitrates, pesticides, and sediment in irrigation runoff and/or leaching to groundwater. The terms of this conditional waiver are consistent with the Water Quality Control Plan for the Central Coast, and are in the public interest.

Background on Irrigated Agricultural Program Implementation (2004 – 2009):

On July 9, 2004, the Central Coast Regional Water Quality Control Board unanimously adopted the 2004 Conditional Waiver, and the associated Monitoring and Reporting Program, with the support of an Agricultural Advisory Panel (including agricultural and environmental interest group representatives), and overall public support. The goal of the 2004 Conditional Waiver was to improve agricultural water quality through the implementation of appropriate management practices. The requirements of the 2004 Conditional Waiver focused on enrollment, education and outreach, development of Farm Water Quality Management Plans (Farm Plans), and cooperative water quality monitoring.

During the term of the 2004 Conditional Waiver, Regional Board staff worked collaboratively with the agriculture community to develop and implement an Irrigated Agricultural Program which would progress to protect and restore surface water quality and groundwater quality to conditions that meet all designated beneficial uses of water in areas with irrigated agricultural lands. Major programmatic accomplishments of the first five years include the following:

- Enrollment of approximately 93 percent of the Central Coast Region's total irrigated agricultural acreage under the 2004 Conditional Waiver;
- Development, implementation, and funding of a region-wide monitoring program (CMP) to assess water quality conditions at the watershed-scale;
- Tracking program implementation for more than 1,700 farming operations (including inspections at 59 farming operations, and various enforcement actions: more than 200 Notices of Violation, more than 20 water quality enforcement actions, and five Administrative Civil Liability complaints);
- Discharger development of Farm Water Quality Management Plans for more than 1,528 operations;
- Discharger completion of water quality education courses (in total, more than 18,000 hours completed);
- Reduction in the use of organophosphates believed to be a source of impairment in surface waters of the state.

- Statistically significant reduction in surface water flow resulting in a reduction in loading of waste in surface waters within the region; and
- Agricultural applications of chlorpyrifos and diazinon decreased by 23 percent (77,986 pounds of active ingredient) from 2004 – 2008 (DPR Pesticide Use Records for Santa Barbara, San Luis Obispo, Monterey, Santa Cruz, and San Benito Counties).

The initial outreach and educational efforts of the Irrigated Agricultural Program were significant. To further address actual water quality impairments, the renewal of the Conditional Waiver can be improved. Thus, progress towards desired water quality outcomes is in need of enhancement. The Central Coast Regional Board must determine how to improve the current program while encouraging agricultural dischargers on the Central Coast to directly address the major water quality issues of toxicity, nitrates, pesticides, and sediment in agricultural surface runoff, and commence to focus on leaching nitrate to groundwater so as to achieve desired water quality outcomes that support all beneficial uses.

This alternative enhanced waiver proposed herein was developed by considering 1) the February 2010 Staff Draft Waiver, 2) the original 2004 Agricultural Alternative, 3) numerous meetings between agriculture representatives and the Regional Board staff, 4) numerous meetings among the diverse agricultural interests on the Central Coast, and 5) consultations with water quality and legal experts throughout the region.

This alternative waiver proposal calls for individual farms to submit new notices of intent (NOIs) to participate in the agricultural waiver, and to identify which of their lands have the potential of irrigation run off to waters of the state. It advances a representative surface water monitoring program to further characterize the water quality in the region's principal water courses, and enable parties to evaluate improved water quality. The watershed monitoring plan would be conducted by a third party monitoring group in accordance with an agreed monitoring protocol. Over time, monitoring locations may need to be readjusted to respond to problems, identify sources, or to respond to data gaps. Monitoring will focus on water quality constituents that have shown to be most prevalent in the region with particular focus on organophosphate and pyrethroid pesticide classes, and nitrates.

The alternative waiver also calls for each farm to craft and maintain an individualized Farm Plan which would identify their farm lands' associated water courses and outline relevant management practices to reduce irrigation return flows and the runoff of contaminants. It would also contain components on grower training/education. Farm Plans may be required to include as components: pesticide management practices and nutrient management practices, both of which would indicate management considerations to reduce discharges of problematic pesticides, and in addition to balancing the application of fertilizers to crop needs. Farm Plans may also include, but are not required to include, SMART (Simple Methods to Achieve Reasonable Targets) Sampling. SMART Sampling is a management practice that includes on-farm sampling of surface irrigation water that allows individual farmers to establish a baseline of farm practices to determine effectiveness of individual farm measures. SMART Sampling data is confidential to the

grower and a grower is not required to share SMART Sampling results to the Regional Board during an on-farm review of a Farm Plan.

In promulgating this conditional waiver, the Regional Board recognizes the importance of agriculture as the dominant and most important economic engine and community support basis throughout the region and that these extensive regulatory efforts to control irrigation and drain water constitutes a major undertaking. The Board further recognizes these stated initiatives that requires reasonable phase-in periods and a high level of coordination and cooperation between the agriculture community and the Regional Board to facilitate effective waiver implementation.

The Regional Board also recognizes that farm operators only have the capacity to deal with their own operational inputs or influences on water. Agriculture receives its irrigation water from different sources, some of which enter farm properties with impairments. It would be inappropriate to require a particular farm operator to clean up water to higher quality than what is received, although that often is the situation. The Regional Board further recognizes the importance of tile drainage, particularly in certain areas of this region with historically high water tables, salt build-up, or salt water intrusion and the landmark efforts which have been employed around the mouth of the Salinas River where agriculture has effectively taken urban reclaimed water and, through irrigation, improves that water quality from the point at which it is received to the point that it is discharged.

The Regional Board recognizes the diversity of agriculture throughout the Central Coast Region. The Regional Board further recognizes that crops, irrigation systems, soil type, pesticide and nutrient uses vary widely over the region, which as a result may or may not affect the waters of the State.

This conditional waiver also calls for the exploration into alternative ways to improve water quality through the use of effective management practices, which need to be implemented to the maximum extent practicable. The Regional Board recognizes that agricultural non-point source discharges are best controlled through the implementation of management practices, which will lead to improvement in water quality and move towards compliance with water quality objectives. Whereas in some cases the most effective management practices for protecting water quality are not yet specifically identified, the waiver encourages agriculture to coordinate with the Regional Board to explore these alternatives which might involve different mechanisms for improving water quality in certain areas of the region, such as collective treatment systems.

By the promulgation of this new enhanced waiver, this region's regulatory effort is far beyond any other program to protect water quality developed anywhere else in this state or country.

Scope and Description of Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Agriculture Lands:

A. Eligibility¹

1. Existing and future discharges from irrigated agricultural lands to waters of the state are potentially eligible for coverage under this Conditional Waiver.
2. Growers eligible under this Conditional Waiver bear the responsibility of complying with the provisions and conditions contained in this Conditional Waiver and others related thereto.
3. Growers eligible under this Conditional Waiver shall comply with the terms and conditions of the Conditional Waiver and take action to improve and protect waters of the State.

B. Enrollment

1. All growers and landowners with discharges from irrigated agricultural lands must complete the following to obtain coverage under the waiver (unless the individual farm has been specifically exempted by the Regional Board, e.g. WDR):
 - a. Complete a Notice of Intent (NOI) to Enroll. All growers who are currently enrolled in the 2004 Conditional Waiver must re-enroll by completing a new NOI;
 - b. Update Farm Water Quality Management Plan (Farm Plan) to meet additional requirements of the 2011 Conditional Waiver;
 - c. Participate in a region-wide monitoring program that will conduct monitoring and report results annually, or obtain an individual MRP from the Regional Board and conduct individual monitoring;
 - d. Complete the Farm Water Quality Survey (FWQS) and submit it to the Regional Board;
 - e. Participate in a Farm Water Quality Survey verification program administered by a third-party entity that conducts randomized verifications of Farm Water Quality Surveys or elect to have the Regional Board conduct randomized verifications of Farm Water Quality Surveys. Both the third-party entity and the Regional Board will be responsible for reviewing and verifying FWQSs and reporting annually on aggregated results from the verification reviews.
 - f. Continuing Education: Operators need to complete 5 hours of water quality continuing education (which can include, but is not limited to: workshops,

¹ This Conditional Waiver does not waive WDRs for commercial nurseries, nursery stock production, and greenhouse operations that have point-source type discharges, and fully contained greenhouse operations (those with no groundwater discharge due to impervious floors). These operations must eliminate all such discharges of waste or submit an ROWD to apply for individual WDRs as set forth in Water Code section 13260. However, if such operations have no discharge or no potential to discharge, there is no need to apply for either WDRs or a Conditional Waiver.

field days, and technical assistance), as long as resources are available, over the term of the Conditional Waiver. Documentation for completing continuing education should be retained in the Farm Plan.

- g. Participate in a Water Quality Coalition for Agriculture or conduct individual on-farm monitoring, if applicable (see Section D, *infra*).²

Notice of Intent

2. Components of the Notice of Intent include:
 - a. Completed application form which includes the Assessor's Parcel Number of the enrolled ranch/ranch operation;
 - b. Copy of the map of operation;
 - c. Statement of commitment to complete a Farm Plan;
 - d. Completed Farm Water Quality Survey;
 - e. Election of participation in the Cooperative Monitoring Program or an Individual MRP;
 - f. Statement of participation in the FWQS verification program administered by a third-party entity or election to have FWQS verifications completed by the Regional Board;
 - g. Election of participation in an Water Quality Coalition for Agriculture or election to conduct individual on-farm monitoring, if applicable (see Section D(1) and (2));
 - h. Identification of the Landowner; and
 - i. Grower identification of the net irrigated acres.
3. The completed NOI must be submitted to the Regional Board within 4 months after adoption of this Conditional Waiver.
4. *Exemptions from Notice of Intent and Other Waiver Requirements:*
 - a. A Certificate of Sustainability³ from a State of California government entity approved program may be submitted in lieu of the NOI as long as the Certificate of Sustainability is submitted by the time when a NOI must be submitted.
 - b. A Certificate of Sustainability from a State of California government entity approved program may also be considered to meet all requirements pertaining to Farm Water Quality Management Plans (Section B(5)), Water Quality Assessments (Section B(6)), and Water Quality Coalition for Agriculture requirements or individual on-farm monitoring requirements (Section D) as long as the approved program issuing the Certificate of Sustainability includes evaluation of irrigation efficiency, pesticide management, sediment management, fertilization management, and documents efficiency of

² If a grower is subject to the provisions in Section D below and elects to participate in a Water Quality Coalition for Agriculture, then the grower need not participate in a FWQS verification program as the Water Quality Coalition for Agriculture audit provisions shall substitute for the third-party entity verification provisions identified here

³ A Certificate of Sustainability includes, but is not limited to, some form of documentation or verification of performance, stewardship index, and/or implementation of state certified good agricultural practices that are protective of water quality.

associated best management practices for the protection of water quality through university research or a representative sample of individual farm verifications once every five years.

- c. A Certificate of Sustainability from a State of California government entity does not exempt the individual from participating in a region-wide monitoring program.
- d. A Certificate of Sustainability must include the Assessor's Parcel Number of the enrolled ranch/ranch operation, election of participation in the Cooperative Monitoring Program or an Individual MRP, and identification of the Landowner.

Farm Water Quality Management Plan

5. Except as specified in section 4, all Growers must complete a Farm Plan. The various components of the Farm Plan will help identify which water quality improvement actions are to be required in the Conditional Ag Waiver.
 - a. The Farm Plan is a flexible detailed plan outlining a grower's management practices as they pertain to water quality.
 - b. The Farm Plan contains proprietary information and is not intended to be public information. The original shall remain on the farm and shall be made available to Regional Board staff upon adequate notice of inspection for on site review. Contents of the Farm Plan shall not be made or discussed during any open, public session of the Regional Board even if being reviewed for regulatory and/or enforcement activities. Should it be necessary for the Regional Board to discuss the contents of an individual Farm Plan, all such discussions shall be conducted in closed session and the Regional Board Counsel shall only report publicly a summary of any action taken by the Regional Board in closed session that pertains to the Farm Plan.
 - c. This Plan should include, at a minimum, a description and/or discussion of current farm water quality conditions and challenges.
 - d. Specific components that address known impairments or identified farm water quality conditions or challenges shall be included in the Farm Plan. Examples of such components shall include the following when applicable to the specific farm:
 - i. Irrigation Management Practices
 - A grower will have to plan to address and improve (where appropriate) irrigation efficiency by addressing the irrigation delivery (distribution uniformity) and/or irrigation scheduling (matching irrigation application to crop ET demand using various tools involving soil, plant, and/or weather assessments).
 - Irrigation efficiency of applied irrigation water should be known and a plan for improvement should be included, if applicable.
 - A grower will have to plan to address efficient irrigation practices by addressing the irrigation delivery and/or irrigation scheduling, whichever is appropriate, if applicable.

- ii. Pesticide Management Practices
 - Pesticides used by the grower that may contribute to water quality toxicity should be identified, if applicable.
 - Management practices for controlling off-site discharge of irrigation water with pesticides should be identified, if applicable.
 - Demonstration of compliance with Pesticide Surface Water Regulations adopted by the California Department of Pesticide Regulations (DPR) when such regulations become effective and applicable.
 - Demonstration that the grower is implementing pesticide management practices that have become generally accepted standard practices in California (e.g. spray equipment calibration, proper pesticide storage, well-head protection, drift management, pest scouting techniques, and use of treatment thresholds), if applicable.
- iii. Sediment Management Practices
 - Address sediment discharges through source controls (e.g. Landguard, PAM, etc.), pollution prevention practices, or technical mitigations that are feasible in a commercial agricultural production system, if applicable.
 - Control of sediment shall be consistent with Food Safety requirements as applicable to individual growers.
- iv. Fertilizer Management Practices
 - Growers shall develop a Proprietary Nutrient Management Plan (NMP) that includes soil analysis, well water analysis and/or plant tissue analysis, as applicable. This will allow the grower to account for nutrients that have been “banked” in the soil profile.
 - A grower will efficiently use fertilizer while maintaining an adequate margin of error as necessitated for commercial agricultural production.
 - Growers will prepare a Proprietary Nutrient Management Plan, if applicable, which needs to identify individual-management practices, taking into consideration the level of nitrate in the irrigation source water when calculating the amount of fertilizer needed. This will be the mechanism by which growers implement practices to address both irrigation water runoff and groundwater nitrate impairments.
 - The NMP may not be reported on, referenced or otherwise referred to, in any further manner, than through the proprietary Farm Plan; or, as an aggregated report on a sub-watershed.
- e. This Plan may include, but is not required to include, on farm verification sampling of surface irrigation water run-off to assist an individual grower to understand potential contributions to water quality impairments. Individual

on-farm sampling (e.g., SMART Sampling to establish a baseline of farm practices, to determine effectiveness of individual farm measures, etc.) is a voluntary management practice. Data collected from SMART Sampling is confidential, part of the management practice itself, and not subject to review and inspection by Regional Board staff upon review of the Farm Plan.

Farm Water Quality Survey

6. Except as specified in section 4, all Growers must complete a Farm Water Quality Survey (FWQS). The FWQS is to be used as an educational tool for the Grower. The FWQS replaces the current management practices checklist and is a self-assessment tool individually completed by each grower. The FWQS is a short questionnaire that identifies and demonstrates farm water quality management practices and aids the grower in determining where educational and management practice implementation efforts should be focused.
7. Upon enrollment, growers are required to submit the FWQS to the Regional Board.
8. Depending on Grower election in the NOI, a third-party entity, such as the entity conducting the Cooperative Monitoring Program, or the Regional Board shall randomly verify FWQSs on an annual basis, beginning in year 2 of the Waiver.⁴ For third-party entities conducting the verifications, randomized FWQS verifications shall include twenty percent of the enrollees over the course of the Waiver, which represents a statistically significant sample size, that have elected to participate in the third party entity. Likewise, the Regional Board shall conduct randomized FWQS verifications of twenty percent of the enrollees over the course of the Waiver that have elected to have the Regional Board conduct the verifications. The third-party entity shall submit an annual report that summarizes the results of its review of FWQSs. The annual report shall include the number of enrollee FWQSs evaluated, the percent of FWQSs that properly reflected operations for which the FWQS applied, and identify aggregate areas in which educational and management practice implementation efforts should be focused. The annual report shall not include the names of the enrollees evaluated or proprietary information. The Regional Board shall prepare a similar annual report summarizing its FWQS verifications and make the report available to the public.

C. Monitoring

Surface Water

1. Surface water quality monitoring shall be conducted in receiving waters with sufficient frequency and at a sufficient number of locations to a) characterize water quality conditions and b) understand long-term water quality trends.

⁴ For Growers and/or landowners subject to the requirements of Section D of this waiver, if the grower and/or landowner elects to participate in an Water Quality Coalition for Agriculture, the audit provisions in Section D shall substitute for the third-party entity verification provisions required here.

Receiving waters monitored should reflect agricultural inputs, and information from the program should clarify sources of impairment and provide feedback to growers in areas of concern.

2. Growers shall participate in a region-wide Cooperative Monitoring Program (CMP) or obtain an individual Monitoring and Reporting Program.
3. Water quality data shall be collected as per the attached Monitoring and Reporting Program (MRP).
 - a. An improved CMP/MRP plan will support stated objectives.
 - b. The purpose of the Monitoring and Reporting Program Requirements is to assess the impacts of waste discharges from irrigated lands on waters of the state, and, where necessary, to track progress in reducing the amount of waste discharged that affects the quality of the waters of the state and their beneficial uses.
 - c. The entity in charge of the Cooperative Monitoring Program shall submit the results of the water quality monitoring to the Regional Board annually in accordance with the Monitoring and Reporting Program Requirements.

Water Quality Improvement Actions:

4. Based on information obtained from annual monitoring reports, Regional Board reviews of submitted FWQSs, and Regional Board review of Farm Plans, the Regional Board shall work with the local agricultural community to identify further water quality improvement actions for growers in areas where water quality is highly impaired and schedule meetings with groups of growers to discuss management practices that should be implemented to address specific impairments.
5. The Regional Board may conduct follow-up inspections to verify that growers in highly impaired areas are implementing practices discussed during group grower meetings.

Water Quality Implementation Verification:

6. In order to assess implementation of management practices that are designed to protect water quality, seven methods of implementation verification and measurement will occur:
 - a. Farm Water Quality Surveys;
 - b. Randomized verification of FWQSs throughout the Region;
 - c. Reported grower group meetings;
 - d. Focused Regional Board inspections on farms most likely to be causing impairments;
 - e. CMP receiving water quality monitoring;
 - f. CMP Follow Up Monitoring; and
 - g. Compliance with Milestones.

7. If the implementation verifications and receiving monitoring results indicate that irrigation return flow discharges from a grower's operation may cause an exceedance of a water quality benchmark in a water of the state, then the Individual Discharger shall, in accordance with an approved Farm Plan, implement additional targeted management practices that are intended to further work toward attaining water quality benchmarks.

Groundwater

8. Groundwater in many areas of the region shows nitrate levels exceeding drinking water standards. Groundwater nitrate problems may have resulted from many sources and over many years. Growers will not be held liable for historical conditions. Since high nitrate groundwater in agricultural areas is often used for irrigation, Farm Plans should include a Proprietary Nutrient Management Plan to ensure that current discharges to groundwater do not further degrade groundwater. Plans also should account for specific nitrate concentrations in irrigation water in determining agronomic nitrogen application rates. (See Section B(5)(iv).)
9. A review of groundwater quality data in the Central Coast Region reveals that groundwater may be contaminated with pollutants, such as nitrate, that can be contained in irrigated agriculture discharges. Such data demonstrates that groundwater basins underlying areas with irrigated agriculture lands may contain levels of nitrate that exceed applicable water quality objectives, which are based on state drinking water standards. It is expected that source control management practices, such as improved irrigation efficiency and fertilizer management, employed by Growers to attain surface water quality benchmarks will reduce loading to groundwater as well. The number of existing groundwater wells in the Central Coast Region is adequate to assess broad changes in groundwater quality as a result of implementation of management practices under the Conditional Waiver.
10. Dischargers must conduct annual groundwater sampling of one primary groundwater well on their operation for nitrates, TDS or EC, and pH. Groundwater sampling must be conducted in the same months each year, as determined by the grower. All results are to be kept in the Farm Plan. Such sampling requirements do not apply to delivered water. If a grower's delivered water sources provide at least annual testing reports for nitrates, TDS, and pH, a grower does not have to conduct individual tests. However, copies of those reports provided by the delivered water sources must be included in the Farm Plan.
11. Agriculture will commit to work with other stakeholder groups on the SWRCB Ground Water Basin Management Planning process (plans are due in 2017).
12. The Regional Board shall use existing historical data collected by other agencies and recent groundwater nitrate projects (e.g., UCD Nitrate Assessment project or the SBS2X 1 project) and current groundwater monitoring data (e.g., Groundwater Ambient Monitoring & Assessment Program, Department of Pesticide Regulation, Department of Public Health, Department of Toxic Substances Control, and data

compiled by local groundwater management agencies and Integrated Regional Water Management Plans) to ground truth and quantify present conclusions regarding groundwater impairment trends.

13. Specifically, the Regional Board shall utilize existing monitoring programs and shall expand on its partnership opportunities to rely on the appropriate local entities and state agencies involved in groundwater monitoring and protection, including but not limited to the Department of Water Resources, Department of Pesticide Regulation, Department of Public Health, etc., to compile, analyze, and utilize existing groundwater data and protection programs, and identify gaps, prior to proceeding with the adoption, regulation, and enforcement upon potential dischargers within the Central Coast. The appropriate local entities will vary throughout the Central Coast and may include local public agencies and integrated regional water management planning agencies.
14. During the term of the Waiver, existing county resource agencies or a third-party may develop groundwater quality management plans (GQMPs) designed to minimize waste discharge to groundwater from irrigated agricultural lands. As part of GQMP development, they may collect and evaluate available groundwater data, identify groundwater management areas (GMAs) of concern, identify constituents of concern within the GMAs, prioritize the GMAs and constituents of concern, identify agricultural practices that may be causing or contributing to the problem, and identify agricultural management practices that should be employed by local growers to address the constituents of concern. Where local agencies have developed local groundwater management plans (e.g., AB 3030, SB 1938, Integrated Regional Water Management plans), the local groundwater management plan may be an appropriate GQMP. However, the Waiver does not require the development of GQMPs at this time.

D. Region 3 Water Quality Coalition for Agriculture

Enrollment Criteria

1. Unless otherwise exempted pursuant to the provisions in section D(2) below, all growers and landowners with irrigated lands in Region 3 meeting any of the following criteria below must also either join a region-wide Water Quality Coalition for Agriculture, or conduct individual on-farm monitoring of irrigation return flows leaving the property:⁵
 - a. Operations with an acre of row crops with high nitrate loading potential; or
 - i. Row Crops with High Nitrate Loading Potential include, but are not limited to: Crops in the Brassica family with high nitrate loading potential, Leafy Greens with high nitrate loading potential, Artichokes, Beans, Beets, Corn, Cucumber, Daikon, Leek, Onion,

⁵ If a grower/landowner does not meet any of the enrollment criteria in Section D(1), the grower/landowner is not required to join a region-wide Water Quality Coalition for Agriculture, or conduct individual on-farm monitoring of irrigation return flows leaving the property.

- Peas, Pepper, Pumpkin, Potato, Radishes, Squash (including Summer), Strawberries, and Tomatoes.⁶
 - ii. Crop types may be identified using the Code of Federal Regulations, Title 40, Part 180.
 - iii. Nitrate Loading Risk Factors may be identified by using the UC Riverside Nitrate Hazard Index.
 - b. Operation has irrigated land that discharges tail-water; or
 - c. Operation has irrigated land that discharges sediment during irrigation.
- 2. ***Exemptions from Requirements to Join a Coalition:*** Growers and/or landowners meeting the criteria in section D(1) above may further be exempted from Section D under the following circumstances:
 - a. The grower or landowner submits a Certificate of Sustainability pursuant to section B(4) above; or
 - b. Growers/Landowners who assert that their nitrate loading risk calculation is valued less than 15 points may apply to the Executive Officer or the Coalition for an exemption. (See Table 1 for Nitrate Loading Risk Factor Criteria.) If the grower/landowner can prove an index of less than 15 points and is provided certification of this by the Regional Board or the Coalition, the grower/landowner may be exempted from participation in the Coalition. This certification is valid for the coming two years and will need to be renewed during the life of the waiver.

Additional Requirements for Coalition Members

- 3. If a grower and/or landowner elects to participate in an Water Quality Coalition for Agriculture in lieu of on-farm monitoring requirements, Coalition participants may be subject to various levels of audits described in section(s) below as conducted by the Water Quality Coalition for Agriculture.
- 4. Coalition audits may be used to determine, including but not limited to, the following:
 - a. Chlorpyrifos – If a grower uses chlorpyrifos and has irrigated water runoff, a Coalition audit would focus on whether they are:
 - i. Using BMPs that are focused on the remediation of this material.
 - ii. Reducing the use of these products in acreage areas where the grower has irrigation water runoff.
 - iii. Operating with authority to use these materials by complying with a special use permit restriction from their County Agricultural Commissioner or the Department of Pesticide Regulations (i.e. pending surface water regulations by DPR).
 - b. Diazinon – If a grower uses diazinon and has irrigated water runoff, a Coalition audit would focus on whether they are:
 - i. Using BMPs that are focused on the remediation of this material.
 - ii. Reducing the use of these products in acreage areas where the grower has irrigation water runoff.

⁶ The Coalition may revise and expand this list as appropriate.

- iii. Operating with authority to use these materials by complying with a special use permit restriction from their County Agricultural Commissioner or the Department of Pesticide Regulations (e.g., pending surface water regulations by DPR).

Audit Provisions

- 5. Coalition participants may be subject to the following audit provisions as described below. At a minimum, the Water Quality Coalition for Agriculture must conduct pre-audit evaluations of at least 20% of the Coalition participants during the term of the Waiver. The Water Quality Coalition for Agriculture may choose to conduct additional pre-audit evaluations at its discretion.

- 6. ***Pre-Audit Evaluation:*** The pre-audit evaluation will include review of the FWQS, sub-watershed monitoring data, and/or conduct field visits to identify priority sub-watersheds. Within identified priority sub-watersheds, the following pre-audit actions will be taken:
 - a. If a nearby CMP site shows that OPs and pyrethroids are present, a grower's pesticide management plan as well as the grower's BMPs for pesticide use will be reviewed and recommendations of technical resources and/or services will be made.
 - b. The Coalition will verify if there is or is not irrigation water runoff present as reported on the FWQS.
 - i. If the FWQS incorrectly reports the presence or non-presence of irrigation water run-off, the Water Quality Coalition for Agriculture will report the discrepancy to the Regional Board within 30 days. The entity responsible for the Cooperative Monitoring Program will also be provided a copy of that list.
 - ii. When reporting the presence or non-presence of irrigation water run-off as reported on the FWQS, an auditor will provide a narrative for observed anomalies or exceptions. For example, when documenting irrigated water runoff in cases where the presence of water leaving the field is in dispute, the water runoff is an aberration, or there was general confusion, the auditor will include such explanation in his/her report. This narrative will not define the geographic location at which water was leaving the field or identify the grower any more than they are identified in the NOI. Neither of these will be reported to the Regional Board unless the dispute in question is resolved and it is found that the grower has incorrectly reported the presence of irrigation water runoff on his/her FWQS.

- 7. ***Primary Audit:*** If a Coalition participant has irrigated water runoff, they may be subject to a primary audit conducted by the Water Quality Coalition for Agriculture. A primary audit may include all of the following:
 - a. Be conducted for contiguous parcels of land;

- b. Include review of the NOI, Farm Plan, Nutrient Management Plan, and Pesticide Management Plan; Review of the pesticide management plan will consider what a grower will do if they have certain pests, disease and weeds, and will take into account pressures from weather, pest infestation, etc.
 - c. Verify BMP implementation.
 - d. Promote the adoption of SMART Sampling.
 - i. The goal of SMART Sampling is two-fold:
 - Identify water quality issues in a farm's discharge(s);
 - Assess the impacts/effectiveness of specific practices that the farmer is trying to improve the quality of the discharge(s).
 - ii. SMART Sampling is confidential to the grower. A majority of the tests can be performed on the farm, and the data will always be left with the grower. The tests that need to be done by a laboratory (pesticides) are returned to the grower as a hard copy report, and no other report is sent out by the lab.
 - e. Primary Audit scoring will be a point-value process created by technical service providers and agricultural stakeholders.
 - f. The Primary Audit score will:
 - i. Provide a basis for differentiating proactive growers from those who are less proactive.
 - ii. Indicate where BMP efforts are needed.
8. **Secondary Audit:** Coalition participants that are subject to primary audits may be subject to secondary audits if the primary audit score is considered to warrant the need for further action as identified by technical service provisions and agricultural stakeholders. Secondary audits may consist of, but is not limited to, the following:
- a. Assess effectiveness of BMP Implementation;
 - b. Determine trend line by comparing initial audit and second BMP audit; Verify nutrient management program implementation;
 - c. Include training regarding use of devices that monitor how water moves through the root zone; and
 - d. Include training on nutrient management.
9. **Audit Reporting:** Audit results, which includes pre-audit evaluations, primary audits and secondary audits, will be reported to the Regional Board in aggregate, based on priority sub-watersheds or priority reaches on a main-stem tributary on an annual basis.
10. Prior to reporting audit results, auditors will review the audit results with growers before a final score is tallied. This will provide growers the opportunity to learn from the audit process, as well as answer any questions posed by the auditor. The auditor will have the final say on the audit report and score. The Water Quality Coalition for Agriculture may establish a grower appeal process within the Coalition structure to address circumstances where there is disagreement between

the auditor and the grower. All appeals must be resolved prior to any aggregated scores being reported to the Regional Board.

Coalition Function and Structure

11. A qualifying Water Quality Coalition for Agriculture must:
 - a. Provide a Bridge between growers and technical resources and technical service providers;
 - b. Conduct pre-audit evaluations of at least 20% of operations enrolled in the Water Quality Coalition for Agriculture during the term of the waiver, conduct primary audits of farms with irrigation water run-off in priority sub-watersheds of the Coalition, focusing on most impaired sub-watersheds as first priority, and conduct secondary audits of those farms identified as needing additional assistance;
 - c. Rank priority watershed areas;
 - d. Notify the Regional Board if a Coalition participant fails to participate in good faith (e.g., fails to pay required fees to maintain Coalition operations); and
 - e. Identify audit timelines by priority sub-watershed.

12. To be a qualifying Water Quality Coalition for Agriculture, the Coalition must submit a Notice of Intent to the Regional Board within 90 days of adoption of the Waiver. The Notice of Intent shall include the name of the Water Quality Coalition for Agriculture, the geographic area and/or commodity for which the Water Quality Coalition for Agriculture intends to cover, contact information and an explanation as to how the Water Quality Coalition for Agriculture intends to operate and conduct the functions identified above. The Executive Officer of the Regional Board shall approve any Water Quality Coalition for Agriculture that meets the requirements specified here. If a Water Quality Coalition for Agriculture fails to provide the required reports in a timely manner, the Executive Officer may terminate the Water Quality Coalition for Agriculture. If termination of a Water Quality Coalition for Agriculture occurs, the Coalition participants may join another Water Quality Coalition for Agriculture, or form a new Water Quality Coalition for Agriculture within 60 days. If a Coalition participant does not join another existing Water Quality Coalition for Agriculture or participate in a newly formed Water Quality Coalition for Agriculture, then the Coalition Participant may be subject to individual on-farm monitoring requirements for the remainder of the term of the Waiver.

13. To conduct the activities specified in provisions 5 – 12 above, the Regional Board shall provide to qualifying Water Quality Coalitions for Agriculture the NOI and FWQS information for growers and/or landowners that elect participation in a Water Quality Coalition for Agriculture. The information shall be provided to applicable Water Quality Coalitions for Agriculture within 60 days after the deadline for submittal of grower/landowner NOIs has expired.

14. Qualifying Water Quality Coalitions for Agriculture should focus their priorities on irrigation water runoff and nutrient management plans.
15. A qualifying Water Quality Coalition for Agriculture may:
 - a. Coordinate receiving water monitoring and data management as required in Section F of this Order;
 - b. Provide assistance to growers and landowners in updating Farm Water Quality Plans and assist with preparation of Nutrient Management Plans;
 - c. Develop sub-committees to assist in the efficient administration of the Coalition activities; and
 - d. Provide assistance for the development of a Collective Treatment Systems where growers have expressed an interest.
 - i. Collective Treatment Systems may be used in watersheds and sub-watersheds where appropriate and applicable. These systems will require engineering that is specific, and should include best available research and technical support along with collaboration from public agencies, academic, and the landowners/operators in the watershed. Consideration by grower(s) to participate is that irrigated water runoff can reasonably be expected to contribute to the collective treatment system and that it is practical to expect that the investment would lead to improvement in water quality. Grower(s) participation in such a system will be considered a significant BMP mitigation to improve water quality in Coalition audits. Participating grower(s)' fee schedule within the Coalition will be adjusted as appropriate to provide the public/private funding needed.

E. General Timelines for Implementation

- March 2011: New Waiver Adopted.
- April 2011: Outreach to Growing Communities begins to implement new waiver and file paperwork.
- June 2011: CCWQP, Inc. organization is updated to gain capacity to manage updated program including FWQS verifications or, if CCWQP, Inc. is unable, a new organization (or organizations) is established to manage multiple objectives and facilitate monitoring, conduct FWQS verification reviews, and assist in completion of nutrient management programs.
- June 2011: Deadline for Water Quality Coalition for Agriculture to submit NOI
- July 2011: Deadline for growers and/or landowners to submit NOI and completed FWQS to Regional Board.

- October 2011: Deadline to submit Statement of Completion of completed Farm Plan to Regional Board (Farm Plan shall remain on farm).
- October 2011: Deadline for Regional Board to provide qualifying Water Quality Coalitions for Agriculture NOI and FWQS information.
- October 2011 – September 2012: 5% of FWQSs will be verified by a third-party entity or the Regional Board, and annually thereafter.
- July 2012 – July 2013: Nutrient Management Plan outreach conducted.
- October 2013: All growers must update their farm plan to show that they have a nutrient management plan in place, if applicable, along with any other updates.
- November 2014: Growers make any updates to their farm plan.

F. Milestones

Table 1. All Dischargers with discharges from irrigated agricultural lands must comply with the following time schedule.

Task	Compliance Date
Submit completed Notice of Intent and Farm Water Quality Survey	<p>For existing Dischargers enrolled under the 2004 Conditional Waiver – Within 4 months after Board adoption of the Order;</p> <p>For any Discharger acquiring control or ownership of an existing operation – Within 30 days of acquiring control or ownership of an operation;</p> <p>For any new proposed Discharger – Prior to any discharge.</p>
Update and Implement Revised Farm Plan	Within 1 year of adoption of the Order.
Complete 5 hours of Farm Water Quality Education.	Within 2 years of adoption of the Order.
The third-party entity conducting the Cooperative Monitoring Program shall submit an updated Quality Assurance Project Plan (QAPP) and Sampling and Analysis Plan for Coordinated Monitoring Program for Executive Officer approval.	Within 6 months from adoption of this Order.
State Date for Implementing Coordinated Monitoring Program.	Within 3 months of Executive Officer approval of QAPP.
Submit Receiving Water Quality data.	Within 3 months after start of monitoring, and quarterly thereafter.

Submit Receiving Water Quality Annual Monitoring Report.	Within one year, and annually thereafter.
----------------------------------------------------------	-------------------------------------------

Table 2. Surface waters must meet the following time schedule and milestones.

Milestone	Compliance Date
Using current CMP data, reduce chlorpyrifos and diazinon toxic units at current CMP sites.	Within 4 year of adoption of the Order, reduce chlorpyrifos and diazinon toxic units by 50%. Within 8 years of adoption of the Order, meet water quality objectives for chlorpyrifos and diazinon.
Decrease sediment loads from current CMP sites by 20%. ⁷	Within 5 years of adoption of the Order.
Decrease nitrate loads from current CMP sites by 10%.	Within 10 years of adoption of the Order.

Compliance with the milestones contained in Table 2 of this Order may be demonstrated by showing improvement in relevant water quality concentrations in the surface waters, by showing that there is a reduction in pollutant loading to the surface water, or by showing that there is a reduction in irrigation return flow discharges to the surface water. Current CMP data, or other appropriate data, may be used to set the baseline for showing a decrease in relevant pollutant loadings. If failure to meet these milestones in surface water by the compliance date can be attributed to previously used legacy materials (e.g., nitrates) present in the source water, the milestone will be considered “achieved.” Failure to comply with the milestones identified in Table 2 by the compliance date will trigger the need to further update Farm Plans and require implementation of more effective management practices by dischargers who discharge to the surface water in question. Implementation of management practices identified in an updated Farm Plan shall constitute individual discharger compliance with the milestones in Table 2.

Table 3. All Dischargers must comply with the following time schedule and milestones related to nutrients in groundwater.

Milestone	Compliance Date
Implement a proprietary Nutrient Management Plan that is intended to reduce nutrient impacts to groundwater.	Within 1 year from adoption of the Order.
Conduct annual groundwater sampling of one primary groundwater well for nitrates, TDS or EC, and pH. Groundwater	Within 1 year from adoption of the Order, and annually thereafter.

⁷ This footnote applies to all three blocks in Table 2, milestones for toxicity, sediment, and nitrates: Reduction in impairment shall be determined by comparing the average of irrigation season (May through September) CMP monitoring results at each CMP site for the year in question to the average base year irrigation season CMP monitoring results for the same site during the CMP monitoring year (e.g., 2009).

<p>sampling must be conducted in the same months each year, as determined by the grower. All results are to be kept in the Farm Plan. Such sampling requirements do not apply to delivered water. If a grower's delivered water sources provide at least annual testing reports for nitrates, TDS, and pH, a grower does not have to conduct individual tests. However, copies of those reports provided by the delivered water sources must be included in the Farm Plan.</p>	
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Implementation of a proprietary nutrient management plan identified in an updated Farm Plan, where applicable, shall constitute individual discharger compliance with the milestone in table 3.

G. Schedule

1. Existing Growers seeking to discharge under this Conditional Waiver shall submit an NOI and all corresponding documents within 4 months after adoption of this Order.
2. New Growers not previously enrolled shall file a complete NOI at least 30 days before commencement of the discharge.

H. Definitions

1. Irrigated Lands – lands where water is applied for the purpose of producing commercial crops. For the purpose of this Conditional Waiver, irrigated lands include, but are not limited to, land planted in row, vineyard, field and tree crops, commercial nurseries, nursery stock production, and greenhouse operations with soil floors.
2. Irrigation return flow – surface water which leaves the property following application of irrigation water.
3. Tailwater – the runoff of irrigation water from the lower end of an irrigated field.
4. Stormwater runoff – the runoff of precipitation from the lower end of an irrigated field.
5. Subsurface drainage –water generated by installing drainage systems to lower the water table below irrigated lands. The drainage can be generated by subsurface drainage systems, deep open drainage ditches or drainage wells.

6. Discharge – a release of a waste to waters of the State, either directly to surface waters or through percolation to groundwater. Wastes from irrigated agriculture include earthen materials (soil, silt, sand, clay, rock), inorganic materials (metals, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.), and organic materials such as pesticides.
7. Discharger – the owner and/or operator of irrigated cropland on or from which there are discharges of waste that could affect the quality of any water of the state.
8. Third-Party Entity – Any group of Dischargers, participants, and/or organizations that form to comply with the Conditional Waiver. Coalition Groups can be organized on a geographic basis or can be groups with other factors in common such as commodity groups.
9. Requirement of applicable water quality control plans – a water quality objective, prohibition, Total Maximum Daily Load (TMDL) implementation plan, or other requirement contained in water quality control plans adopted by the Regional Board and approved according to applicable law.
10. Monitoring – refers to all types of monitoring undertaken in connection with determining water quality conditions and factors that may affect water quality conditions, including but not limited to in-stream water quality monitoring undertaken in connection with agricultural activities, monitoring to identify short and long-term trends in water quality, inspections of operations, management practice implementation and effectiveness monitoring, maintenance of on-site records and management practice reporting.
11. Farm Water Quality Management Plan (Farm Plan) – a document that contains, at a minimum, identification of practices that are currently being or will be implemented to address irrigation management, pesticide management, nutrient management and erosion control to protect water quality. Plans will contain a schedule for implementation of practices. Lists of water quality protection practices are available from several sources, including the University of California farm plan template available from the University of California and on-line at <http://anrcatalogue.ucdavis.edu/merchant.ihtml?pid=5604&step=4>.
12. All other terms shall have the same definitions as prescribed by the California Water Code Division 7, unless specified otherwise.

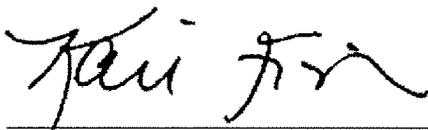
I. Compliance and Enforcement

1. Growers are the responsible parties for meeting the conditions of this Conditional Waiver. Failure by an Individual Grower to maintain compliance with conditions of this Conditional Waiver may result in enforcement actions including imposition of civil liability under Water Code 13268 or 13350, and/or withdrawal of the

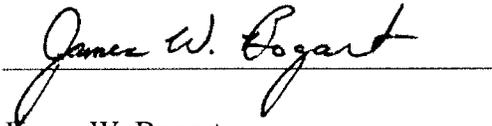
Conditional Waiver and issuance of waste discharge requirements by the Regional Board (Water Code sections 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350).

2. Under the terms of this Conditional Waiver, both owners and operators of irrigated lands have responsibility for compliance with the conditions of this Conditional Waiver. Many management practices will be operational in nature and under the direct control of the operator, while structural practices which remain in place through changes in leaseholders will more likely be the responsibility of the landowner. In the event that the Regional Board undertakes enforcement action, the owner and the operator may be held accountable. Owners and operators may consider delineating these responsibilities in lease agreements; however both the owner and operator will retain full legal responsibility for complying with all provisions of this Conditional Waiver.
3. The conditions of this Conditional Waiver require the identification and implementation of targeted actions that will lead to achieving water quality benchmarks. To satisfy the conditions of this Conditional Waiver, an Individual Grower or entity conducting the Cooperative Monitoring Program must submit technical reports, and conduct required monitoring programs. In addition to the foregoing, a Grower must, where necessary to further work toward attaining water quality benchmarks, implement management practices, evaluate the effectiveness of those practices, and, refine and/or supplement those practices to improve their effectiveness, as necessary to attain water quality benchmarks.
4. Individual Growers in compliance with the conditions of this Conditional Waiver will not be required to file ROWDs or be subject to WDRs during the term of this Conditional Waiver.

Submitted on behalf of the following entities that support this proposal:



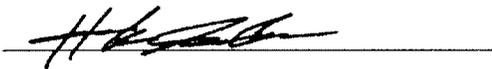
Kari E. Fisher
Associate Counsel
California Farm Bureau Federation
Monterey County Farm Bureau
San Benito County Farm Bureau
San Luis Obispo County Farm Bureau
San Mateo County Farm Bureau
Santa Clara County Farm Bureau
Santa Cruz County Farm Bureau
Santa Barbara County Farm Bureau



James W. Bogart
President & General Counsel
Grower-Shipper Association of Central California



Richard Quandt
President
Grower-Shipper Association of Santa Barbara
and San Luis Obispo Counties



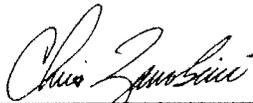
Hank Giclas
Senior Vice President
Science, Technology & Strategic Planning
Western Growers



Kasey Cronquist
CEO/Ambassador
California Cut Flower Commission



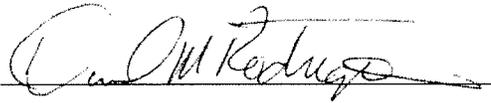
Kris O'Connor
Executive Director
Central Coast Vineyard Team



Chris Zanobini
President
California Association of Nurseries and Garden Centers



Rick Tomlinson
Director of Government Affairs
California Strawberry Commission



Daniel Rodrigues
President
Central Coast Wine Growers Association



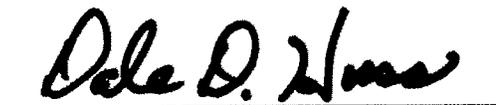
Michael Scattini
California Artichoke Advisory Board



April Mackie
Farm Programs Manager
Martin Jefferson & Sons



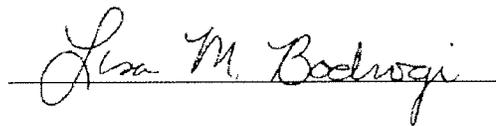
Martin Jefferson
Chair
Central Coast Young Farms and Ranchers



Dale Huss
Vice President of Artichoke Production
Ocean Mist Farms



Michael Scattini
Luis Scattini & Sons



Lisa M. Bodrogi
Government Affairs Coordinator
Paso Robles Wine Country Alliance

Table 1. Nitrate Loading Risk Factor Criteria

A. Crop Type Nitrate Hazard Index Rating
1 - Bean, Grapes, Olive.
2 - Apple, Avocado, Barley, Blackberry, Blueberry, Carrot, Chicory, Citrus, Lemon Oat, Orange, Peach, Pear, Pistachio, Raspberry, Walnut, Wheat.
3 - Artichoke, Bean, Brussel Sprout, Corn, Cucumber, Daikon, Peas, Radish, Squash, Summer, Tomato, Turnip, Squash, Rutabaga, Pumpkin, Potato.
4 - Beet, Broccoli, Cabbage, Cauliflower, Celery, Chinese Cabbage (Napa), Collard, Endive, Kale, Leek, Lettuce, Mustard, Onion, Parsley, Pepper, Spinach, Strawberry.
(Based on UC Riverside Nitrate Hazard Index)

B. Irrigation System Type Rating
1 - Micro-irrigation year round (drip and micro-sprinklers) and no pre-irrigation;
2 - Sprinklers used for pre-irrigation only and then micro-irrigation;
3 - Sprinklers used for germination or at any time during growing season;
4 - Surface irrigation systems (furrow or flood) at any, and/or in combination with any other irrigation system type;
(Based on UC Riverside Nitrate Hazard Index, Adapted for the Central Coast Region)

C. Irrigation Water Nitrate Concentration Rating
1 - Nitrate concentration 0 to 45 mg/liter Nitrate NO ₃
2 - Nitrate concentration 46 to 60 mg/liter Nitrate NO ₃
3 - Nitrate concentration 61 to 100 mg/liter Nitrate NO ₃
4 - Nitrate concentration > 100 mg/liter Nitrate NO ₃

D. Nitrate Loading Risk Calculation = A x B x C
LOW - Nitrate loading risk is less than 10;
MODERATE - Nitrate loading risk is between 10 and 15;
HIGH - Nitrate loading risk is more than 15.
<i>Note: Dischargers must determine the nitrate loading risk factor for each ranch/farm, based on the criteria associated with the highest risk activity existing at each ranch/farm. For example, the ranch/farm is assigned the highest risk factor, based on the single highest risk crop in the rotation, on one block under furrow irrigation, or on one well with high nitrate concentration.</i>

{Draft} Farm Water Quality Survey

Grower Evaluation of Water Quality

Introduction:

All Growers must complete a Farm Water Quality Survey (FWQS).* The FWQS is to be used as an educational tool for the Grower. The FWQS replaces the current management practices checklist and is a self assessment tool to be completed by each grower. The FWQS is a questionnaire that identifies and demonstrates farm water quality management practices and aids the grower in determining where management practice implementation and educational efforts should be focused.

Upon enrollment, growers are required to submit the FWQS to the Regional Board. In addition, growers may submit an update of the FWQS during the five-year term of the conditional waiver if requested by the Central Coast Regional Water Quality Control Board.

Directions:

Read through the following assessment questions and check the appropriate line to indicate your answer as it pertains to your farm operation. Fill out one questionnaire per contiguous (i.e. adjoining parcels) ranch.

Name of Operation: _____
Operator AW #: _____
Contact Name: _____
Contact Address: _____
Contact Phone: _____ Contact Fax: _____
Contact E-mail: _____
Ranch Name: _____
Ranch Location: _____
Number of Irrigated Acres: _____

- 1) Do you have Irrigation Water Runoff on this/these ranch(es)?
- Yes _____
No _____
- 2) Number of Acres on Ranch with Irrigation Water Runoff: _____

* Except as exempted with an approved Certificate of Sustainability.

Check Applicable Line

Nutrient Management

1) Annual Crops: Do you know soil residual levels for nitrogen through soil sampling and your crop nitrogen needs?

Yes _____
No _____
N/A _____

2) Perennial Crops: Do you know soil residual levels for nitrogen through soil sampling and your crop nitrogen needs?

Yes _____
No _____
N/A _____

3) Do you know how much nitrogen is in your well or delivered water?

Yes _____
No _____
N/A _____

4) Do you know the total nitrogen required by your crops systems?

Yes _____
No _____
N/A _____

5) Do you incorporate nitrogen quick tests for water and soil into your nutrient management program when appropriate?

Yes _____
No _____

6) Do you use backflow devices on all operating wells?

Yes _____
No _____

7) Do you take into account crop maturation and weather changes when making nitrate application decisions?

Yes _____
No _____

Optional Narrative for Nutrient Management

Please list the question number you are referring to:

Pesticide Management

- 1) Do you have irrigation return flow (surface water which leaves the property following application of irrigation water)?

Yes _____

No _____

Note: If your answer is yes, please answer questions 2-4 in this section. If your answer is no, please skip questions 2-4 in this section.

- 2) Do you use organophosphate pesticides?

Yes _____

No _____

- a) Are you in compliance with pesticide label requirements?

Yes _____

No _____

N/A _____

- b) Do you have irrigation water run-off that leaves your property where you use these pesticides?

Yes _____

No _____

N/A _____

- i. If yes, do you use an enzymatic product such as Landguard to remediate the organophosphate pesticide in water runoff?

Yes _____

No _____

N/A _____

- ii. Do you use any other mitigation measures?

Yes _____
No _____
N/A _____

If yes, please describe here:

3) Do you use pyrethroid pesticides?

See sediment management for mitigation answers

Yes _____
No _____
N/A _____

a) Are you in compliance with pesticide label requirements?

Yes _____
No _____

4) If you have irrigation water run-off, have you utilized SMART SAMPLING, or conducted your own sampling to determine if management practices result in water quality improvements?

Yes _____
No _____
N/A _____

5) Are you a licensed Pesticide Crop Advisor or do you hold a Qualified Applicator License?

Yes _____
No _____
N/A _____

If N/A, please explain:

Optional Narrative for Pesticide Management

Please list the question number you are referring to:

Sediment Management

1) Do you have irrigation water run-off that leaves your property?

Yes	_____
No	_____
N/A	_____

2) Do you have soil sediment leaving your fields from irrigation?

Yes	_____
No	_____
N/A	_____

3) If yes, do you use a sediment basin to retain and settle sediments prior to discharging irrigation water run-off?

Yes	_____
No	_____
N/A	_____

4) Do you use PAM to control sediment?

Yes	_____
No	_____
N/A	_____

5) Do you control sediment from leaving fields with any of the following management practices? *Please check the methods you use.*

- Cover Crops
- Mulching
- Filter Strips

- Vegetated buffers
- Vegetated Ditches
- Sediment Basins
- Other (please describe in narrative)

Optional Narrative for Sediment Management

Please list the question number you are referring to.

Groundwater & Irrigation Management

8) Do you have irrigation water run-off?

Yes	_____
No	_____

9) Are you monitoring your soil moisture level?

Yes	_____
No	_____

10) Have you taken steps toward determining and understanding your irrigation distribution uniformity?

Yes	_____
No	_____

11) Are there back-flow devices on your wells?

Yes	_____
No	_____

Optional Narrative for Irrigation & Groundwater Management

Please list the question number you are referring to:

**Draft Central Coast Agriculture's Alternative Proposal for the Regulation of Discharges
 from Irrigated Agricultural Lands
 Draft Monitoring and Reporting Program for the Cooperative Monitoring Program
 December 3, 2010**

Water Code section 13267 and 13269 authorizes the Central Coast Regional Water Quality Control Board to require preparation and submittal of technical and monitoring reports. This draft Monitoring and Reporting Program (MRP) sets forth monitoring and reporting requirements for the third-party entity conducting the Cooperative Monitoring Program under the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (see Draft Central Coast Agriculture's Alternative Proposal for the Regulation of Discharges from Irrigated Agricultural Lands).

Monitoring and Reporting Requirements

Table 1. Receiving Water Quality Monitoring Parameters

Parameters and Tests	RL¹	Monitoring Frequency²
Photo Monitoring		
Photograph of monitoring location		With every monitoring event
WATER COLUMN SAMPLING		
Physical Parameters and General Chemistry		
Flow (field measure (CFS))	.25	Monthly, plus 2 stormwater events
pH (field measure)	0.1	“
Electrical Conductivity (field measure) (uS/cm)	2.5	“
Dissolved Oxygen (field measure) (mg/L)	0.1	“
Temperature (field measure) (°C)	0.1	“
Turbidity (NTU)	0.5	“
Total Dissolved Solids (mg/L)	10	“
Total Suspended Solids (mg/L)	0.5	“
Hardness (mg/L as CaCO ₃)	1	“
Total Organic Carbon (ug/L)	0.6	“
Nutrients		
Total Kjeldahl Nitrogen (mg/L)	0.5	Monthly, plus 2 stormwater events
Nitrate + Nitrite (as N) (mg/L)	0.1	“
Total Ammonia (mg/L)	0.1	“

¹ Reporting Limit, taken from SWAMP where applicable.

² Monitoring is ongoing through all five years of the Order, unless otherwise specified. Monitoring frequency may be used as a guide for developing alternative MRP Plan.

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Parameters and Tests	RL³	Monitoring Frequency⁴
Unionized Ammonia (calculated value, mg/L))		
Total Phosphorous (as P) (mg/L)	-	"
Soluble Orthophosphate (mg/L)	0.01	"
Water column chlorophyll a (ug/L)	0.002	Monthly only
Floating Algal Mats, % coverage	-	Monthly only
Pathogens		
Fecal coliform (MPN/100 ml)	2	Quarterly, plus 2 stormwater events
<i>E. coli</i> (MPN/100 ml)	2	"
Water Column Toxicity Test		
Algae – <i>Selenastrum capricornutum</i> , 4 day	-	Twice in dry season, twice in wet season
Water Flea – <i>Ceriodaphnia</i> (7-day chronic)	-	"
Fathead Minnow – <i>Pimephales promelas</i> (7-day chronic)	-	Twice in dry season, twice in wet season
Pesticides⁵ (ug/L)		
Carbamates		
Aldicarb	0.05	4 times, concurrent with water toxicity monitoring, in second year of Order term
Carbaryl	0.05	"
Carbofuran	0.05	
Methiocarb	0.05	"
Methomyl	0.05	"
Oxamyl	0.05	"
Organophosphate Pesticides		
Azinphos-methyl	0.05	"
Chlorpyrifos	0.05	"
Diazinon	0.05	"
Dichlorvos	0.05	"
Dimethoate	0.05	"
Dimeton-s	0.05	"
Disulfoton (Disyton)	0.05	"

³ Reporting Limit, taken from SWAMP where applicable.

⁴ Monitoring is ongoing through all five years of the Order, unless otherwise specified. Monitoring frequency may be used as a guide for developing alternative MRP Plan.

⁵ Pesticide list may be modified based on specific pesticide use in Central Coast Region.

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Parameters and Tests	RL⁶	Monitoring Frequency⁷
Malathion	0.05	“
Methamidophos	0.05	“
Methidathion	0.05	“
Parathion-methyl	0.05	“
Phorate	0.05	“
Phosmet	0.05	“
Herbicides		
Altrazine	0.05	“
Cyanazine	0.20	“
Diuron	0.05	“
Glyphosate	2.0	“
Linuron	0.1	“
Paraquat dichloride	4	“
Simazine	0.05	“
Trifluralin	0.05	“
Other (ug/L)		
Phenol	10	4 times, concurrent with water toxicity monitoring, in second year of Order term
SEDIMENT SAMPLING		
Sediment Toxicity – <i>Hyaella azteca</i> 10-day		Annually
Benthic invertebrate Assessment	SWAMP SOP	Once during the second year of Order concurrent with sediment toxicity sampling
Pyrethroid Pesticides in Sediment (ug/kg)		
Gamma-cyhalothrin	25	Once during second year of Order, concurrent with sediment toxicity sampling
Lambda-cyhalothrin	25	“
Bifenthrin	25	“
Delta-Methrin	25	“
Beta-cyfluthrin	25	“
Cyfluthrin	25	“
Esfenvalerate	25	“

⁶ Reporting Limit, taken from SWAMP where applicable.

⁷ Monitoring is ongoing through all five years of the Order, unless otherwise specified. Monitoring frequency may be used as a guide for developing alternative MRP Plan.

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Parameters and Tests	RL⁸	Monitoring Frequency⁹
Permethrin	25	“
Cypermethrin	25	“
Organochlorine Pesticides in Sediment		
DDD	2	“
DDE	2	“
DDT	5	“
Dicofol	2	“
Dieldrin	2	“
Endrin	2	“
Methoxychlor	5	“
Other		
Chlorpyrifos (ug/L)	2	“
Total Organic Carbon	0.01%	“
Sediment Grain Size Analysis	1%	Once during second year of Order, concurrent with sediment toxicity sampling

Table 2. Groundwater Sampling Parameter

Parameter	RL	Analytical Method	Units
pH	0.1	Field or Laboratory Measurement	pH Units
Specific Conductance	2.5		μS/cm
Total Dissolved Solids	10	EPA General Methods	mg/L
Nitrate + Nitrite (as N)	0.1	General Anions EPA Method 300	mg/L

⁸ Reporting Limit, taken from SWAMP where applicable.

⁹ Monitoring is ongoing through all five years of the Order, unless otherwise specified. Monitoring frequency may be used as a guide for developing alternative MRP Plan.

Table 3. Individual Discharge Monitoring for Tailwater and Stormwater Discharges

Parameter	Analytical Method ¹⁰	Maximum PQL	Units	Min Sampling Frequency
Discharge Flow or Volume	Field Measure	---	CFS	(a) (d)
Approximate Duration of Flow	Calculation	---	hours/month	
Temperature (water)	Field measure	0.1	⁰ Celsius	
pH	Field Measure	0.1	pH units	
Turbidity	SM 2130B, EPA 180.1	1	NTUs	
Nitrate + Nitrite (as N)	EPA 300.1, EPA 353.2	0.1	mg/L	
Ammonia	SM 4500 NH3, EPA 350.3	0.1	mg/L	
Chlorpyrifos ¹¹	EPA 8141A, EPA 614	0.02	ug/L	(b) (c) (d)
Diazinon ¹²				
Algae Toxicity (Selanastrum)	EPA-821-R-02-013	NA	% Survival	
Ceriodaphnia Toxicity (96-hr acute)	EPA-821-R-02-012			
Chlorpyrifos ¹¹	EPA 8141A, EPA 614	0.02	ug/L	
Diazinon ¹²				
Algae Toxicity (Selanastrum)	EPA-821-R-02-013	NA	% Survival	

¹⁰ "Quick test strips" and handheld water quality meters may be used if method or device is approved by EPA and appropriate sampling methodology and quality assurance protocols are used to ensure accuracy of the test.

¹¹ If chlorpyrifos or diazinon is used at the farm/ranch, otherwise does not apply.

(a) Two times per year during primary irrigation season for operations greater than 1000 acres but less than 5000 acres, and four times per year during primary irrigation season for operations greater than 5000 acres.

(b) Once per year during primary irrigation season for operations greater than 1000 acres but less than 5000 acres, and two times per year during primary irrigation season for operations greater than 5000 acres.

(c) Sample must be collected within one week of chemical application, if chemical is applied on farm/ranch.

(d) Once per year during wet season (October – March) for operations greater than 1000 acres but less than 5000 acres, and two times per year during wet season for operations greater than 5000 acres, within 18 hours of major storm events.

¹² If chlorpyrifos or diazinon is used at the farm/ranch, otherwise does not apply.