APPENDIX E

Staff Recommendations for Agricultural Order

Responses to Public Comments

CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD

March 2011

CALIFORNIA
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STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

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Public Comment Letters

Table 1. Public Comments received by January 3, 2011 in response to the November 19, 2010 Public Notice for the Draft Agricultural Order.

Letter No.	Date Received	Association	Representative
1	11/30/2010	Tom Kornegay	Tom Kornegay
2	12/3/2010	California Farm Bureau Federation	Kari Fischer
3	12/13/2010	Graham Edwards	Graham Edwards
4	12/14/2010	Douglas Dietch	Douglas Dietch
5	12/15/2010	COLAB	J. Andrew Caldwell
6	12/16/2010	Central Coast Water Quality Preservation, Inc.	Kirk Schmidt
7	12/21/2010	Ecosystem Science	Cameron Begley
8	12/21/2010	California Avocado Commission	Tom Bellamore
9	12/21/2010	Dellavalle Laboratory, Inc.	Keith Backman
10	12/23/2010	Central Coast Vineyard Team	Kris O'Connor
11	12/23/2010	Martin Jefferson & Sons	Benny Jefferson
12	12/23/2010	Form Letter	Thomas Gibbons, etc.
13	12/27/2010	Central Coast Water Quality Preservation, Inc.	Kirk Schmidt
14	12/27/2010	Jennifer Clarke	Jennifer Clarke
15	12/28/2010	Ocean Mist and RC Farms	William J Thomas
16	12/28/2010	Pesticide Watch	Dana Perls
17	12/29/2010	Mesa Vineyard Management	Dana M. Merrill
18	12/29/2010	Rio Farms	Bob Martin
19	12/29/2010	Rio Farms	Bob Martin
20	12/28/2010	San Jerardo Cooperative, Inc.	Horacio Amezquita
21	12/8/2010	Sue and Karl Luft	A. Sue Luft
22	12/20/2010	San Luis Obispo Farm Bureau	Jackie Crabb
23	12/29/2010	Dragon Spring Farm	Michael Broadhurst
24	12/29/2010	Pacific Vineyard Company	George Donati
25	12/29/2010	Valley Farm Management, Inc.	Richard Smith
26	12/29/2010	Santa Barbara County Farm Bureau	Kevin Merrill
27	12/30/2010	Dee Anna Shrefler	Dee Anna Shrefler
28	12/30/2010	California Women for Agriculture	Krista Kodl
29	12/30/2010	Faith Vineyard	John Jones
30	12/30/2010	San Luis Obispo Farm Bureau	Joy Fitzhugh
31	12/30/2010	Water Community Dialogue Effort of Pajaro Valley	Kelley Bell
32	12/30/2010	Mesa Ranch Nursery	Chris Chaney
33	12/31/2010	Sea Mist Farms	Dale Huss
34	12/30/2010	Santa Clara County Farm Bureau	Tim Chiala
35	12/31/2010	Cass Vineyard and Winery	Steve Cass
36	1/3/2011	Mike Hollarman, CCA	Mike Hollarman
37	12/31/2010	Joel Wiley, CCA	Joel Wiley

Letter No.	Date Received	Association	Representative
38	12/31/2010	Sierra Club	Kenn Reiller
39	12/31/2010	Betteravia Farms	Craig Reade
40	12/31/2010	Paso Robles Wine Country Alliance	Lisa M. Bodrogi
41	12/31/2010	J. E. Farms, Inc.	John Eiskamp
42	1/2/2011	Vard and Terri Ikeda	Vard Ikeda
43	1/2/2011	Alta Colina Vineyard and Winery	Bob Tillman
44	1/2/2011	Vineyard Professional Services Inc.	John Crossland
45	1/2/2011	Barr Creekside Vineyard, LLC.	Greg Barr
46	1/3/2011	Shayne Meritt	Shayne Merritt
47	1/3/2011	Greywater Action	Cleo Woelfle-Erskine and Laura Allen
48	1/3/2011	Eugene Rene LeRoy Trust	Ellen Trescott
49	1/3/2011	Steve Christian	Steve Christian
50	1/3/2011	Ada's Vineyard LLC	Kathy Tucker
51	1/3/2011	Estrella Farms	Lee and Lorraine Steele
52	1/3/2011	Luis A. Scattini & Sons, LP	Luis Scattini
53	1/3/2011	Salinas River Channel Association	Benny Jefferson
54	1/3/2011	Hearst Corporation	Marty Cepkauskas
55	1/3/2011	Form Letter	Bruce Knobeloch, etc.
56	1/3/2011	Form Letter	Dana Rodrigues
57	1/3/2011	Form Letter	Unitarian Fellowship, etc.
58	1/3/2011	Salisbury Vineyards	John Salisbury
59	1/3/2011	Monterey County Farm Bureau	Dirk Giannini
60	1/3/2011	Darlene Din	Darlene Din
61	1/3/2011	Monterey Bay Nursery, Inc.	Lue Miller
62	1/3/2011	Laguna Mist Farms	Paul Scheid
63	1/3/2011	Greg Johnson	Greg Johnson
64	1/3/2011	CA Cut Flowers Com., CA Assoc. Nurseries and Garden Centers	Kasey Cronquist
65	1/3/2011	Boutonnet Farms	John Pattullo
66	1/3/2011	Julie Engell	Julie Engell
67	1/3/2011	Costa Family Farms	David Costa
68	1/3/2011	Western Plant Health Assoc.	Henry Buckwalter
69	1/3/2011	Arroyo Seco Vineyards	Roger Moisito
70	1/3/2011	County of Santa Cruz	John A. Ricker
71	1/3/2011	Form Letter	Amanda Wittstrom-Higgins, etc.
72	1/3/2011	University of California, Davis	Tim Hartz
73	1/3/2011	Crop Production Services	Stephen Dyer
74	1/3/2011	Jean Lyons	Jean Lyons
75	1/3/2011	University of California, Santa Cruz	Andrew Fischer
76	1/3/2011	Precision Ag Consulting	Dr. Lowell Zelinski
77	1/3/2011	Margarita Vineyards LLC	Karl F. Wittstrom
78	1/3/2011	Resource Conservation District- Santa Cruz and Monterey Co.	Marti Johnson
79	1/3/2011	California Farm Bureau Federation	Kari E. Fischer

Letter No.	Date Received	Association	Representative
80	1/3/2011	Monterey CoastKeeper	Steve Shimek
81	1/3/2011	Western Growers	Hank Giclas
82	1/3/2011	Grower Shipper Association	Richard S. Quandt
83	1/3/2011	California Strawberry Commission	Theresa A. Dunham
84	1/3/2011	Dow Agrosciences	Brian L. Bret, Ph.D.
85	1/3/2011	Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy	Nathan G. Alley
86	1/3/2011	Rincon Farms, Inc.	Wayne Gularte
87	1/3/2011	Anchorpoint Christian High School	Ken Bradley
88	1/3/2011	Grower Shipper Association	James W. Bogart
89	1/3/2011	Hearst Ranch Winery	Jim Saunders
90	1/3/2011	National Marine Fisheries Service	Steven Edmonson
91	1/3/2011	Vic Roberts	Vic Roberts
92	1/3/2011	Fort Ord Environmental Justice Network, Inc.	Donald Stone
93	1/3/2011	Clean Water Action, Community Water Center	Jennifer Clary
94	1/3/2011	Darlene Din	Darlene Din
95	1/3/2011	California Rural Legal Assistance, Inc.	Phoebe Seaton
96	1/3/2011	Reiter Affiliated Companies	Daniel Balbas
97	1/3/2011	County of Santa Barbara	Glen Russell
98	1/3/2011	Crown Packing Company	David Bunn
99	1/3/2011	Monterey Bay National Marine Sanctuary	Paul Michel
100	1/3/2011	Central Coast Water Quality Preservation, Inc.	Sarah Greene Lopez
101	1/3/2011	Alice Gripp	Alice Gripp
102	1/3/2011	Huntington Farms	Nick Huntington
103	1/3/2011	Kathy D'Andrea	Kathy D'Andrea
104	1/3/2011	Pacific Institute	Juliet Christian-Smith
105	1/3/2011	Environmental Justice Coaltion for Water	Dipti Bhatnagar
106	1/3/2011	Joe Plummer	Joe Plummer
107	1/3/2011	Santa Clara County Farm Bureau	Tim Chiala
108	1/3/2011	Thomas R. Am Rhein	Thomas R. Am Rhein
109	1/3/2011	Jensen Family Farms, Inc.	Jensen Family Farms Inc.
110	1/3/2011	M.D. Caparone	M.D. Caparone
111	1/5/2011	Hastings Ranch Vineyard	Newlin Hastings
112	1/5/2011	Frank Capurro & Son	R. Michael Manfre
113	1/3/2011	Darlene Din	Darlene Din
114	12/29/2010	Steve Arnold	Steve Arnold
115	1/2/2011	Lynn Miller	Lynn Miller
116	1/3/2011	George Kendall	George Kendall

Table 2. Summary of Public Comments arranged by major topics showing Comment Letter Numbers.

Topic	Total Number of Comments	Comment Letter No.
Monitoring/Reporting	89	5, 8, 10, 11, 13, 15, 21, 22, 23, 25, 26, 27, 30, 40, 43, 44, 45, 46, 48, 50, 51, 57, 59, 64, 68, 70, 71, 72, 75, 76, 77, 80, 81, 83, 85, 90, 93, 100, 103, 104, 105, 106, 110, 111
General	69	2, 5, 11, 14, 15, 16, 18, 21, 25, 26, 30, 32, 34, 35, 37, 40, 41, 43, 44, 45, 47, 48, 49, 51, 52, 54, 56, 57, 59, 60, 61, 62, 69, 73, 74, 76, 77, 79, 80, 81, 82, 83, 85, 88, 93, 94, 95, 97, 99, 102, 104, 105, 107, 111, 112
Implementation	68	7, 9, 10, 11, 13, 15, 33, 36, 37, 40, 42, 43, 44, 45, 46, 50, 55, 59, 64, 65, 70, 71, 76, 77, 78, 79, 81, 82, 83, 84, 85, 90, 100, 101, 105, 107, 108, 109, 110, 111, 113, 114, 116
Groundwater	52	4, 5, 10, 12, 13, 15, 16,18, 19, 20, 21, 23, 26, 28, 29, 30, 31, 34, 37, 38, 39, 40, 43, 44, 45, 47, 51, 52, 59, 64, 66, 67, 68, 70, 75, 76, 77, 78, 79, 83, 87, 88, 89, 91, 92, 100, 101, 102, 104, 105, 106, 109, 110, 112, 114, 115, 116
Economics	51	12,16, 20, 21, 24, 29, 30, 33, 40, 56, 58, 59, 61, 65, 66, 67, 69, 76, 79, 83, 86, 88, 94, 98, 104, 114, 115
Aquatic Habitat/Buffers	42	5, 11, 13, 15, 25, 27, 34, 38, 40, 43, 53, 55, 59, 69, 77, 79, 82, 84, 85, 86, 88, 90, 109
Surface Water	20	3, 5, 10, 16, 17, 18, 20, 21, 32, 41, 47, 60, 64, 71, 76, 79, 81, 83, 87, 88, 89, 90, 102, 105
Nutrient Management	20	9, 10, 11, 12, 15, 19, 34, 37, 59, 67, 71, 72, 73, 76, 83, 89, 110, 112
Pesticides/Toxicity	19	7, 16, 20, 26, 47, 64, 66, 68, 69, 81, 84, 90, 101
Irrigation	14	1, 16, 20, 40, 43, 44, 45, 47, 50, 57, 59, 64, 65, 66, 67, 71, 72, 77, 79, 82, 85, 87,109, 110, 113
Tiers	13	7, 8, 10, 12, 15, 18, 24, 26, 28, 53, 55, 56, 59, 60, 61, 67, 79, 81, 82, 88
Timing/Schedule	9	11, 32, 53, 67, 79, 81, 83, 93, 105

Table 3. **Responses to Public Comments in Order of Letter Numbers as Posted on the Water Board website**. This table includes responses to most of the public comments submitted by the comment deadline of January 3, 2011.

Comment ID (author, Letter No – Page) **Topic** (subtopic) **Similar Comment** (Letter No – Page)	**Comment**	**Response**
Comment No. 121 from Tom Kornegay, Letter No. 1, p.1. Irrigation	Do you have any examples of the kind of backflow prevention devices that will be required for irrigation wells Are flapper valves enough or will we be required to chose one from the California list of approved backflow prevention assemblies	The 2011 Draft Ag Order does not specify the type of backflow prevention device you should use, but you should use what is effective to accomplish the stated purpose of the condition of the waiver. Back flow prevention devices used to protect water quality must be those approved by USEPA, DPR, CDPH, or the local public health or water agency. DPR provides a training manual on backflow prevention at the following website: http://www.cdpr.ca.gov/docs/emon/grndwtr/chem/grower_manual.pdf. Extracted from the manual and regarding check valves: “The irrigation system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. Chemigation valves have been designed to satisfy these three requirements. A chemigation valve consists of an air/vacuum relief valve and a low pressure drain valve located immediately upstream of a check valve. This valve should be mounted immediately adjacent to the discharge head of the pump”. Alternatives to the main water line backflow valve include "air gap" and "gooseneck pipe loop (please see DPR's manual)."
Comment No. 615 from California Farm Bureau Federation. Letter No. 2, p.3. General (Farm Bureau Ag Alternative)	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	The Water Board is not required to adopt a Basin Plan amendment to adopt a waiver of waste discharge requirements to regulate discharges of waste to waters of the state from irrigated agricultural lands. The Staff Report and appendices, particularly Appendix F, Section 2.2 provides an estimate of the cost to implement the proposed 2011 Ag Order and identifies potential sources of funding (Section 4). See response to Letter 40

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	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.	(Comment No. 648).
Comment No. 616 from California Farm Bureau Federation. Letter No. 2, p.5. General (Farm Bureau Ag Alternative - Sampling)	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.	Water Code section 13269 requires that results from monitoring required as a condition of a waiver must be made available to the public.
Comment No. 658 from California Farm Bureau Federation. Letter No. 2, p.6. General (Education)	Continuing Education: Operators need to complete 5 hours of water quality continuing education (which can include, but is not limited to: workshops, field days, and technical assistance). Documentation for completing continuing education should be retained in the Farm Plan.	Staff included education requirements (15 hours within 18 months, report proof of education) in the November 19, 2010 Draft Order in response to comments on the February 1, 2010 Preliminary Draft Order. Commenters on the February 1, 2010 Preliminary Draft Order, specifically agricultural interests, presented the value and importance of education and requested we include education requirements. In response, staff included the same education requirements as in the existing 2004 Order in the November 19, 2010 Draft Order with the following exceptions. Staff required the education to be completed within 18 months of adoption of or enrollment in the Order, and modified the language describing the type of education to clarify it should be focused on methods of reducing pollution loading and measuring effectiveness of practices for compliance with the Order's conditions (rather than focus on general water quality education). Several commenters on the November 19, 2010 Draft Order, recommended five hours of education instead of 15, no time limit on when the education is completed, and for education

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		documentation to be kept in the Farm Plan rather than be reported. Staff concurs that five hours of education any time during the five-year term of the Order may be adequate and does not recommend the Water Board track or manage reports of education. Staff considers education valuable for the purpose of assisting growers with appropriate implementation that will reduce their pollution loading and improve water quality, and does not consider education an important action to track or enforce in of itself. Staff revised the Draft Order accordingly. See edits to Order at Condition 44, page 19.
Comment No. 617 from California Farm Bureau Federation. Letter No. 2, p.9. General (Farm Bureau Ag Alternative - Farm Plans) 44-2	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.	Water Code section 13267(b)(2) specifies that when requested by the submitter, "the portions of the report that might disclose trade secrets or secret processes may not be made available for inspection by the public but shall be made available to governmental agencies for use in making studies. However, these portions of a report shall be available for use by the state or any state agency in judicial review or enforcement proceedings involving the person furnishing the report." In addition, pursuant to the Public Records Act, the Water Board would be required to disclose other portions of reports unless subject to another exemption under the Public Records Act. The proposed Order has been revised to clarify the law with respect to confidential information.
Comment No. 404 from California Farm Bureau Federation. Letter No. 2, p.13. General (Farm Bureau Ag Alternative - Groundwater, management practices effectiveness)	Point 9 reads: 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	The Regional Board has very broad authority and responsibility to regulate discharges of waste to waters of the state, including surface and groundwater, and to require monitoring. As discussed in the Staff Report, Appendix G, Section 2.1, many private municipal wells within the Central Coast Region are polluted with nitrate that exceeds drinking water standards. The presence of nitrate pollution is frequently the result of agricultural activities. It is therefore reasonable to require monitoring of

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	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.	domestic wells consistent with the monitoring requirements set forth in Water Code section 13269 and 13267. The Regional Board's authority to require monitoring is not superseded by the public health departments' and local agencies' authority to regulate drinking water supply.
Comment No. 618 from California Farm Bureau Federation. Letter No. 2, p.13. General (Farm Bureau Ag Alternative - Groundwater conditions)	Groundwater nitrate problems may have resulted from many sources and over many years. Growers will not be held liable for historical conditions.	The proposed alternative would state that growers will not be held liable for historical conditions. The staff's 2011 Draft Ag Order acknowledges the existing groundwater problems and the many sources. However, the Water Board is required to protect the beneficial uses of waters of the state; it cannot preclude in this order the option of requiring those responsible for existing water quality conditions to address the conditions, such as through an order to provide alternative water to affected persons. The 2011 Draft Ag Order does not directly address liability for these historical conditions or place liability on any particular discharger. If the Water Board were to take any action, it would be required to clearly demonstrate who is responsible and take action in a separate order.
Comment No. 619 from California Farm Bureau Federation. Letter No. 2, p.14. General (Farm Bureau Ag Alternative - Other Agencies)	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	The proposed ag alternative includes many provisions, such as this one, that would place burdens on other entities to take action. The Water Board has the responsibility and authority to waive waste discharge requirements that include conditions that apply to the dischargers, not to other entities who are not dischargers. Conditions directed at entities other than the regulated entities cannot be included as conditions in a waiver.

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	may include local public agencies and integrated regional water management planning agencies.	
Comment No. 229 from Graham Edwards. Letter No. 3, p.1. Surface Water	I am writing to request that immediate and forceful action be taken to clean up agricultural runoff. This is an extremely serious problem that demands a policy with enough power to be effective. Often policies are too weak or contain loopholes that allow those that need to be regulated to slip through. For once lets not let powerful agricultural interests supersede the well being of the public at large.	Comment noted.
Comment No. 620 from Douglas Dietch. Letter No. 4, p.1. Groundwater (salt water intrusion)	Saltwater intrusion in Pajaro and Salinas Valleys.Ag runoff is relatively inconsequential compared to this "water quality" problem/catastrophe we have experienced here for decades. It has permanently ruined our 2 major ground water basins in both the Pajaro and Salinas Valleys.. As I say.."this is a food security problem.."	The Central Coast Water Board and staff agree that salt water intrusion is a very significant problem in the Central Coast Region. The primary cause of salt water intrusion in groundwater is pumping groundwater for agriculture and other uses. The Central Coast Water Board does not have jurisdiction to regulate the pumping of groundwater; the Water Board regulates discharges of waste to waters of the state. Groundwater use is regulated by local entities and, in some cases, the State Water Resources Control Board. Conditions proposed in the renewal of the Ag Order may result in conservation of water, and, therefore, less pumping, but the Water Board may not require the conservation.
Comment No. 9 from COLAB. Letter No. 5, p.5. Aquatic Habitat/Buffers	Respect the fact that …. food safety issues must be respected in any rule making effort.	See response to Letter 79 (Comment No. 4).
Comment No. 621 from COLAB. Letter No. 5, p.2. General (Authority, Regulatory takings, searches)	Agriculture should NOT be required to test for and clean up chemical traces in the water that are there through NO fault of their own. This desire to search for pollutants and order abatement violates principles of laws that protect the citizenry from searches and takings that are not justified or even rational. There has always been a	The Central Coast Water Board is required by the Porter-Cologne Water Quality Control Act (Water Code Division 7) to either issue waste discharge requirements or a waiver of waste discharge requirements to regulate discharges of waste that could affect the quality of the waters of the state. A waiver must include conditions to assure compliance with the Basin Plan, including

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	standard of protection for the citizenry of the United States against unlawful and unwarranted searches and seizures of private property, and from the imposition of regulations that can only be described as arbitrary and capricious.	protection of all beneficial uses. The Central Coast Water Board regulates many types of point and nonpoint source dischargers, including sewage treatment plants, industrial discharges, confined animal facilities, either similarly or more stringently than it regulates agricultural discharges. The Water Board is not singling out agriculture, but regulating consistently with the Board's responsibility under the Water Code and State Water Resources Control Board polices, including its Nonpoint Source Policy. Water Code section 13269 (waivers) requires the Water Board to include monitoring. For a response to the comment about takings, please see response to Letter 79 (CEQA Comment No. 497 in Attachment A to the SEIR in Appendix H). To the extent the 2011 Draft Ag Order requires monitoring, such monitoring is required to be imposed under Water Code section 13269 or Water Code section 13267. According to Water Code section 13267, the Water Board may only conduct inspections of property with permission of the owner/operator or by a warrant duly issued by a superior court. The 2011 Draft Ag Order does not violate the constitutional proscription against unreasonable search and seizure.
Comment No. 622 from COLAB. Letter No. 5, p.3. General (Past dischargers)	The chemicals the farmers used then and now are legally registered products. It is patently unfair for your staff to ask these good stewards to clean up the water to drinking water standards when the alleged impairments stem from past approved and customary practices of decades and even a century ago.	The existing 2004 Order and the 2011 Draft Order do not require agricultural dischargers to cleanup pollution caused by other past dischargers. Persons who discharge waste that could affect the quality of the waters of the state are responsible for their discharges. The Water Board issues permits and orders to many dischargers. For example, it has issued many orders requiring cleanup of drycleaner and underground tank sites, perchlorate sites, landfill sites, and other industrial facilities. It issues permits to golf courses, sewage treatment plants, cities (stormwater permits) and other dischargers that are significantly more stringent than the 2004 Ag Order or the 2011 Draft Ag Order.
Comment No. 123 from COLAB. Letter No. 5, p.4.	What about missile launch impacts at VAFB What trace chemicals were left behind What spills occurred and	We encourage the commenter to become familiar with the Central Coast Water Board's programs to protect and preserve the

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Groundwater (Monitoring)	what was the resultant impact upon the soil and groundwater in the basin from these and so many other historical uses	beneficial uses of water in our region. These are discussed briefly in this order and its supporting materials or you can find information on our website. For instance, under our Site Cleanup/Department of Defense Unit, four staff members are working to resolve water quality problems at Vandenberg AFB. At Vandenberg, many site cleanups are underway and many sites have been successfully closed. Most impacts from Vandenberg and spills that you refer to are termed "point" sources, and are relatively easy to address once identified and proper funding in place. Other programs, such as the Underground Tank Program and Landfill Program, also address point sources of pollution. Regarding historical uses, the Water Code (California Law) stipulates that the landowner is responsible for pollution on their property (including historical groundwater impacts, regardless of historical uses that caused the problem). With respect to nitrate (a non-point source issue), this Order sites numerous research studies that indicate that current practices are impacting groundwater, so regardless of past practices, current practices are locally exacerbating the problem.
Comment No. 231 from COLAB. Letter No. 5, p.2. Monitoring/Reporting	The main point here is that your staff is asking the farmers of the region to monitor for and clean up pollutants that were NEVER used by farmers to begin with and are certainly NOT being used by farmers today.	The advantage of leaving organochlorine pesticides in the receiving water monitoring program is to eliminate them as a potential cause of the widespread toxicity we are seeing in sediment in agricultural areas of the Region. However, the recently released Cooperative Monitoring Program sediment follow-up study shows levels of organochlorines to be relatively low and unlikely to cause toxicity. Therefore, we deleted them from the Monitoring and Reporting Program. Other chemicals, including metals and phenols are constituents of commonly applied agricultural chemicals. If monitoring shows they are not causing water quality problems they will be eliminated from future monitoring requirements.
Comment No. 230 from COLAB. Letter No. 5, p.1.	All of the constituent pollutants in the basin are NOT attributable to agriculture. Your staff wants agriculture to clean up their contribution to water quality degradation	Staff based their assertion of Agriculture's contribution to the water quality problems on high quality data. This data shows that water quality is degraded by nitrate, chlorpyrifos, diazinon, and

Comment ID (author, Letter No – Page) **Topic** (subtopic) **Similar Comment** (Letter No – Page)	**Comment**	**Response**
Surface Water	without ever having bothered to delineate what pollutants are actually attributable to agriculture! The draft order issued by your staff is replete with gross exaggeration, hyperbole and rhetoric that should serve as an indicator to your board that something is amiss. The basic gist of the order tries to make the case that millions of people are at risk from the pollutants attributable to agriculture on the Central Coast.	other agricultural chemicals in agricultural areas that are not dominated by other land uses. Site location for the agricultural cooperative monitoring program was designed to eliminate, minimize or characterize influence of other pollutant sources. Findings in the staff report are supported by data of documented quality, peer reviewed journal articles, and other supportable documentation. Other dischargers (such as municipalities) are already regulated by permits and are also required to monitor, implement management practices and report to our agency.
Comment No. 232 from COLAB. Letter No. 5, p.2. Surface Water	Municipalities do not treat water to drinking water standards UNLESS and UNTIL the water is going to actually be served for human consumption. Your staff has infuriated the public it serves by promulgating this ridiculous standard that would have them clean WASTE water to drinking water standards so that it can flow down a ditch to the ocean.	The California Water Code requires the Central Coast Water Board to protect all designated beneficial uses of water. This means if a water body is designated as having "municipal and domestic supply" as a use, the Board is obligated to protect it for that use. Streams and rivers support fish, wildlife, groundwater recharge, and drinking water uses (among others). The federal Clean Water Act and related State water quality laws prevent using streams, rivers and groundwater basins as waste disposal systems to the detriment or elimination of these uses. These laws apply to all discharges of waste, not just agricultural discharges.
Comment No. 166 from Ecosystem Science. Letter No. 7, p.2. Implementation (Enzyme technology) 84-5	We request that the emerging or alternative approaches be contemplated in the waiver structure so that farmers can make operational choices from both economic and environmental stand points. We recommend that alternative technologies, such as the Landguard enzyme technology, are contemplated and allowed for use on the farm given that the proposed alternative technology complies with all relevant federal and state laws and that the proposed approach has demonstrated efficacy to achieve the desired water quality.	Dischargers must not apply any chemical directly to surface waterbodies designated in the Basin Plan, including chemicals used for the purposes of breaking down applied pesticides or reducing associated toxicity (e.g. Landguard), unless approved by the Central Coast Water Board. However, Staff has discussed Landguard's (and/or similar product) applicability and usage under a low threat permit and will consider revisiting this issue with appropriate program staff over the coming year.
Comment No. 233 from Ecosystem Science. Letter No. 7, p.2.	There will be certain circumstances that may induce farmers to switch from OP to synthetic pyrethroid (SP) insecticides as it appears that there is no limit set for SP	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become

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Pesticides/Toxicity	as there is for OP insecticides. This would likely result in unintended consequences as while OP utilization may drop, the SP increase will result in other eco-tox outcomes that do not appear to be contemplated or regulated in the draft waiver. We would suggest that this "loop hole" requires some attention in the final waiver.	equally problematic they may be added to requirements for individual discharge monitoring. At this point staff is using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase our ability to detect problems associated with pyrethroid pesticides, we have replace algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional chemicals or toxicity tests as necessary.
Comment No. 478 from Ecosystem Science. Letter No. 7, p.1. Tiers 81-6	There appears to be no clear method to move between tiers, thus appearing to pre-empt certain decision rights for farmers around their operations. Of most concern is the Tier 3 status for all diazinon and chlorpyrifos use in production systems which appears to heavily impose on the operator that chooses to use these pesticides without consideration to the available options to mitigate the environmental impact or take account of the environmental and economic consequences of switching away from this class of insecticide. …In summary, our key recommendations in response to the draft waiver are…There is flexibility to move between Tiers. Specifically, if a grower can demonstrate that he is not causing toxicity or exceeding water quality standards in his/her tail water that is entering waters of the state AND using chlorpyrifos or diazinon, they can move freely and appropriately from Tier 3 to Tier 2 (or Tier 2 to Tier 1)."	See added discussion regarding Tiers in the Staff Report Section 3C: "Justification for Staff Recommendations and Options Considered – Moving Between Tiers." The Draft Ag Order establishes three tiers of regulation to take into account the characteristics of a specific operation, the level of waste discharge, relative threat to water quality, and known information about local water quality conditions. Tier 1 includes Dischargers with a very low level of waste discharge and very limited threat to water quality (similar to a low-threat discharge). Tier 2 includes Dischargers with a moderate level of discharge and moderate threat to water quality. Tier 3 includes Discharges with the highest level of discharge and highest threat to water quality. Staff proposed conditions in the Draft Ag Order commensurate with the level of discharge and threat to water quality, including monitoring and reporting requirements. In the Central Coast region, there are currently forty-five Clean Water Act 303(d) impaired waterbody listings for toxicity, twenty-six listings for chlorpyrifos, and thirteen listings for diazinon. In

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		addition, there is substantial evidence that chlorpyrifos and diazinon are major causes of severe toxicity in agricultural areas (see revised Draft Ag Order findings #58, 68-79). Thus, staff concludes that Dischargers who apply these chemicals may discharge these chemicals in irrigation and stormwater runoff, and pose a relatively greater risk to water quality than those Dischargers who do not apply these chemicals. Furthermore, staff concludes that Dischargers who apply these chemicals at operations adjacent to streams already impaired for toxicity and pesticides are the highest priority for monitoring and reporting requirements in the Draft Order. While the Draft Order does not include any prohibitions or conditions regarding the use or application of these chemicals, staff concludes that specific monitoring and reporting regarding the proximity of use relative to surface waterbodies, implementation of management practices to control or treat potential discharges, and individual discharge monitoring is necessary in specific cases. The Draft Order prioritizes requirements to address pesticides that are known sources of toxicity and the source of a number of impairments on the 2010 List of Impaired Waterbodies, specifically chlorpyrifos and diazinon. As the commenter indicates, staff acknowledges that farmers may choose to switch away from this class of pesticide for a variety of reasons. In the case where further documentation indicates that additional pesticides are a primary source of toxicity and impairments in the Central Coast region, the Central Coast Water Board intends to consider such pesticides for inclusion in tiering criteria and conditions for this and subsequent Orders (see revised Draft Ag Order finding #7). Staff has proposed revisions to the Draft Order to clarify the opportunity for Dischargers to move to a different tier, if information documents a lower level of discharge or lower threat to water quality (see condition #17). Proposed revisions state

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		that "Dischargers may submit a request to the Executive Officer to approve transfer to a lower tier. The request must provide information to demonstrate a lower level of waste discharge and a lower threat to water quality, including site-specific operational and water quality information. In the case where the Discharger provides evidence that treatment has effectively removed pollutants from the discharge and the Discharger plans to maintain such treatment or control, then the Executive Officer may consider this Discharger for a lower tier.
Comment No. 234 from California Avocado Commission. Letter No. 8, p.1. Monitoring/Reporting 27-1	We propose that the Draft Conditional Waiver's monitoring requirements reflect avocados' low discharge risk and quantity, as opposed to a broad threshold attached to operational size and location.	We acknowledge that some crop types are generally less prone to creating water quality problems than others. The tiering structure, nitrate risk characterization, and pesticide use determinations are intended to address this.
Comment No. 235 from California Avocado Commission. Letter No. 8, p.1. Monitoring/Reporting	California Avocado Commission is respectfully requesting avocado growers be exempt from cooperative surface water monitoring, only undergoing cooperative monitoring – during stormwater events – in monitoring sites receiving avocado runoff. Additionally, avocado growers should only incur monitoring expenses for discharges, in which they bear responsibility (i.e. – a pricing structure comprised of: 1.) solely watershed monitoring sites that collect avocado drainage 2.) solely stormwater-monitoring charges).'	The tiering structure addresses lower impact operations. We have kept the costs of the cooperative monitoring program down by focusing in areas of impairment and allowing Central Coast Ambient Monitoring Program data to characterize agricultural areas that are not monitored by the Cooperative Monitoring Program. The Monitoring and Reporting Program provides the option of any grower conducting his or her own receiving water monitoring that achieves the same goals as the Cooperative Monitoring Program.
Comment No. 479 from California Avocado Commission. Letter No. 8, p.1. Tiers	The California Avocado Commission (CAC) wants to commend CCRWQCB Staff on the tiering approach utilized in the updated Draft Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (released November 19, 2010). The concept indicates marked progress in establishing regulations that collaboratively improve Central Coast water quality;	Comment Noted.

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	an objective shared by the Water Board and avocado growers, alike.	
Comment No. 168 from Dellavalle Laboratory, Inc. Letter No. 9, p.2. Implementation	Will the order stipulate what happens when the grower shifts crops from year to year or has a small percentage of risky crops? Fields are rented for 1 season.	The draft order specifies that within 30 days of any change in operation or ranch/farm information an updated NOI must be submitted to reflect the change. Dischargers will identify in the NOI, if they are a Tier 1, Tier 2, or Tier 3 Discharger and provide information in the NOI that allows the Central Coast Water Board to confirm the appropriate tier. Staff's review of the NOIs will allow for close evaluation of operations on a case by case basis, especially for those Dischargers reporting Tiers 2 and 3. Dischargers may also choose to subdivide their operation into "nitrate loading risk units" based on the variability of conditions for purposes of complying with the Order. The Executive Officer has the authority to require Dischargers to enroll irrigated land with similar characteristics (e.g., same landowner or operator) and proximal/adjacent/contiguous location, as a single operation or farm/ranch. The Draft Order specifies that when a grower is farming a parcel for less than 12 months, the landowner must submit the Notice of Intent (NOI). The landowner (and the Operator) is legally responsible for ensuring compliance with the Order and for any discharge of waste occurring on or from the property. The landowner will be responsible for complying with the requirement of the order in the cases that the land is rented for only 1 year. If a grower shifts or rotates crops, the unit is most likely in the high risk category, unless the grower is able to rotate between low risk crops such as grapes with high risk crops such as broccoli, which is almost impossible to do. If the grower has high risk crops in the winter such as broccoli and low risk crops in the summer such as dry beans then the unit is still considered a high risk unit even if it is based on only 1 high risk crop in the rotation.

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Comment No. 167 from Dellavalle Laboratory, Inc. Letter No. 9, p.2. Nutrient Management	Regarding nitrogen loading. Nitrogen application needs to be measured and projected in areas with significant well water nitrogen. This cannot be done without a water meter or at least a professional pump test indicating gallons per minute. This needs to stipulated in the order. All tiers Soil Sample depth and frequency should be specified for any tier that needs to fertilize accurately. (page57)	Staff recognized that the exact amount of irrigation water applied to a crop is needed to accurately estimate the amount of N applied to the crop. However, since Water board staff is not intending to regulate the amount of water applied with irrigation, the Draft Order does not ask growers to measure the amounts of water applied. At this time, the amount of N applied with irrigation water will be credited based on the crop evapotranspiration.
Comment No. 169 from Dellavalle Laboratory, Inc. Letter No. 9, p.2. Nutrient Management	Page 25. Nitrate < 10 mg/L NO3 (N) Not good nomenclature. Does the 10 refer to nitrate or nitrate-N [drinking water MCL is 10 NO3-N or45 NO3]	Yes, the drinking water standard is 45 milligrams per liter (mg/L) for nitrate as NO3 (equivalent to 10 mg/L for nitrate as N). Staff Report, page 25 does reference the drinking water standard <10 mg/L NO3(N); that reference is changed to <10 mg/L N03-N.
Comment No. 132 from Central Coast Vineyard Team. Letter No. 10, p.3. Groundwater (Monitoring) 44-2, 89-1, 106-1, 110-1	Vineyards almost exclusively use drip irrigation, applied periodically throughout the dry, growing season. Most growers irrigate LESS than what the vine needs (deficit irrigation) to minimize over growth of the canopy and leaves (which is undesirable) and to promote the vine's energy for producing high quality fruit. …Yet, ALL growers in the proposed order (regardless of Tier and/or nitrate risk index) are required to submit groundwater testing results, collected by a PE or equivalent professional. These requirements are overly burdensome, both for growers and staff, and do not make sense with regards to 'prioritization'.	Comments noted. Please see responses to Letter 77 (Comment No. 122) and Letter 40 (Comment No. 188).
Comment No. 170 from Central Coast Vineyard Team. Letter No. 10, p.5. Nutrient Management 89-1	Remove groundwater testing and reporting for growers in lower tiers and/or growers with a low nitrate risk index.	Data shows that water quality conditions in agricultural areas of the region continue to be severely impaired or polluted by waste discharges from irrigated agricultural operations and activities that impair beneficial uses, including drinking water. This is a high priority. Water quality monitoring of domestic wells is not readily available, but based on the limited data available, the number of domestic wells that exceed the nitrate drinking water standard is likely in the range of several hundreds or more. And, private domestic well water quality is not regulated and it is estimated

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		that thousands of rural residents drink water from these impaired sources without knowing the quality of drinking water and without treatment. Impacts to human health are the highest priority and need a short-term response. Groundwater monitoring is warranted to assess groundwater conditions around farm operations, as this data is not currently collected. The frequency of sampling needed for groundwater (one-time) is less frequent for lower risk operators. Regardless of the tier, groundwater monitoring will help characterize the groundwater conditions and allow prioritization of on-farm activities or regional areas based on groundwater conditions.
Comment No. 236 from Central Coast Vineyard Team. Letter No. 10, p.5. Surface Water 89-1	If prioritization based on location is pursued, narrow the 303d list to specify chlorpyrifos, diazinon or nitrate listings; clarify confusing or ambiguous language throughout the document(s) referring to the 303d list; define the list within the Order's body	The Draft Order was clarified by combining waterbodies on the Clean Water Act section 303(d) List of Impaired Waterbodies into a single table. The List includes waterbodies impaired by parameters such as turbidity and temperature, as well as toxicity, pesticides, nutrients and nitrate, all of which affect the health of the waterbodies.
Comment No. 481 from Central Coast Vineyard Team. Letter No. 10, p.2. Tiers 12-1, 18-2, 24-1, 26-1, 28-1, 53-2, 55-2, 56-1, 59-2, 60-3, 61-1, 81-1, 88-5	For water quality impacts to occur, both the *transport method* and *constituent* need to be present. Several of the staff's proposed tier triggers do not account for either of these mechanisms and do not make sense in terms of prioritizing operations based on risk to water quality, i.e., 1000 acre threshold and 1000 feet proximity to 303d waterbody. In addition, the 1000 acre threshold and 1000 ft proximity thresholds are not factors that a grower has control over – they can not be changed. As a result in the current proposed staff draft, there are few opportunities for a grower to move to a lower tier based on changing farming practices that protect water quality.	See added discussion regarding Tiers in the Staff Report, Section 3C: "Justification for Staff Recommendations and Options Considered." Also see response to Letter 7 (Comment No. 478) regarding changing Tiers. There are examples in the Draft Order that provide incentives to implement practices that protect water quality. For example, farmers choosing to implement more efficient irrigation practices can significantly reduce their nitrate loading risk factor, which would result in a reduction in requirements, including monitoring and reporting. Another example is the proposed inclusion of SIP certified vineyards in Tier 1.

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	An effective Ag Order program would be structured to incentivize practices that protect water quality, not one that punishes growers (in terms of compliance and administration) based on scale and location without regards to actual water quality risk.	
Comment No. 480 from Central Coast Vineyard Team. Letter No. 10, p.2. Tiers 21-3, 24-1	I strongly urge Board and Staff to include SIP as being eligible in the lowest tier and that documentation of SIP Certification serve as any and all compliance documents for this order.	In response to this comment, staff has proposed revision to the Draft Order specifying that Sustainability in Practice (SIP) certified operations qualify for the lowest Tier (Tier 1). See revised Draft Ag Order condition #14.1d.
Comment No. 482 from Central Coast Vineyard Team. Letter No. 10, p.3. Tiers	Recommendation: Reconfigure Tier triggers to reflect both prioritized transport and constituents; define triggers that growers have control over so practices/conditions can be rewarded by moving them to a less burdensome tier.	See added discussion regarding Tiers in the Staff Report Section 3C: "Justification for Staff Recommendations and Options Considered." The Draft Order includes criteria related to acreage and proximity to prioritize operations with the greatest relative threat to water quality, in areas where there is documented impairment. The Draft Order includes provisions that allow the Discharger to provide evidence to the Executive Officer, including evidence related to the volume of discharge and/or effectiveness of practices/conditions in their control, as the basis for consideration for a lower tier.
Comment No. 483 from Central Coast Vineyard Team. Letter No. 10, p.3. Tiers	Recommendation: If using a geographic focus for prioritization to define tiers, narrow the list to include 303d waterbodies specifically listed for chlorpyrifos, diazinon, and nitrate. Using this definition would affect 55 unique waterbodies representing over 700 unique miles. Over half of these 55 listed waterbodies have multiple listings, so it would be an efficient way to prioritize locations. In addition, any geographically based list that is referenced in the order as a trigger should be included in the Order itself to eliminate any possibility of confusion.	Comment noted. See added discussion regarding Tiers in the Staff Report Section 3C: "Justification for Staff Recommendations and Options Considered." Tier 2 is intended to include operations that present a moderate threat to water quality and includes operations in proximity to waterbodies that are impaired for pollutants associated with irrigated agriculture. In addition, staff finds that the exclusion of toxicity impaired waterbodies would be a major omission given the severity of toxicity found in agricultural areas. In response to this comment, staff has proposed revisions to the Draft Order Table 1 to include all related listed waterbodies.

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Comment No. 484 from Central Coast Vineyard Team. Letter No. 10, p.4. Tiers	… based on the proposed tier triggers, there are several situations where vineyards would fall into Tier 2 or 3, even though they do not have either the *transport or constituent* factors that could potentially affect water quality. For example, a 1000 acre vineyard or a vineyard within 1000 feet of a 303d listed waterbody would not be in Tier 1 regardless of their not using OP's, not having tailwater, and not being a crop with a high loading potential. This does not make sense. …Recommendation: Scale the farm plan and reporting requirements for operators with lower transport and constituent risk accordingly. A low risk grower should not have to read 49 pages of an Order and 24 pages of an MRP to know how to comply."	See added discussion regarding Tiers in the Staff Report Section 3C: "Justification for Staff Recommendations and Options Considered." Tier 1 is intended to include those Dischargers who have a very limited level of waste discharge and present very minimal risk to water quality. Addressing pesticide management and implementing erosion and sediment control to minimize water quality impacts due to off-site movement of soil, water, and chemicals continue to be important for vineyards. These issues are especially important in the case of hill-side vineyards and those adjacent to impaired waterbodies. The Central Coast Vineyard Team's Sustainability in Practice (SIP) certification includes requirements and an auditing system to ensure that participating growers are addressing these issues. Tier 1 Dischargers are the lowest priority for implementation of this Order. In response to this comment, staff is recommending edits to the Draft Order to include vineyards that are SIP certified as Tier 1. Tier 2 operations are those that pose a moderate level of waste or threat to water quality and vineyards that use chlorpyrifos and diazinon, and those located near an impaired waterbody would qualify as Tier 2. Only vineyards that used chlorpyrifos and diazinon that are also 1000 acres or larger, or adjacent to a creek that is impaired for toxicity or pesticides, would qualify as Tier 3. The vineyard example described above would likely be a Tier 2 operation (not Tier 3). In response to this comment, staff restructured the format of the Monitoring and Reporting documents to clarify requirements for individual tiers.
Comment No. 10 from Martin Jefferson & Sons. Letter No. 11, p.1.	There are heavy regulations already in these areas and the proposed rules in the new-ag waiver do NOT provide any scientific proof that they would provide any benefit to water quality.	Please refer to Attachment A of the proposed Order, Appendix D and Appendix G of the Staff Report for information on the benefit to water quality that aquatic habitat provides. The information refers to literature that supports the water quality benefits of

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Aquatic Habitat/Buffers		aquatic habitat, including local studies.
Comment No. 372 from Martin Jefferson & Sons. Letter No. 11, p.1. General (Farm Bureau Ag Alternative) 14-1, 15-1, 25-2, 26-2, 30-1, 37-1, 40-1, 41-2, 43-5, 45-2, 48-1, 52-1, 54-1, 55-2, 56-1, 59-1, 60-3, 61-1, 62-1, 73-1, 74-1, 77-3, 79-23, 81-5, 83-33, 88-4, 102-2, 107-1, 111-2, 112-1	I highly encourage you and your Board to review the Ag Alternative Waiver that has been created regarding this process and consider the robust industry-wide changes being proposed by the ag industry rather than the "inconsistent, arbitrary leaps" that are being dictated by Region 3 Staff.	Staff revised the February 1, 2010 Draft Order to the November 19, 2010 Draft Order in response to thousands of comments from multiple stakeholders and Board members that spoke to including water quality protection, and flexibility, accountability and reasonableness. Staff further edited the November 19, 2010 Draft to recommend the 2011 Draft Order in response to hundreds of similar comments. Staff and the Central Coast Water Board must harmonize and meld all alternatives, proposals and suggestions submitted and provided to staff through the several years of outreach and public input that has already transpired. Staff and the Central Coast Water Board have relied on both staff representatives meeting with agricultural representatives and the public hearing process in so doing. See discussion of the California Farm Bureau *Federation's Draft Central Coast Agriculture's Alternative Proposal for the Regulation of Discharges from Irrigated Agricultural Lands* in Staff Report, Appendix D. Options Considered, Section VII. Also, see the comparison of alternatives and options considered in Staff Report Appendix D.
Comment No. 373 from Martin Jefferson & Sons. Letter No. 11, p.2. General (Cost and coalitions) 96-1	We are heavily concerned with the enforcement aspect of the new waiver. It was evident from the prior years that the RWQCB was unable to staff itself with personnel with an understanding of agriculture or delegate the time to staff to actually regulate the process. It is extremely unfair to "threaten" regulation, ask growers to comply and pay money into an inadequately maintained process (including a mismanaged database) as well as conduct actual regulatory procedures. The economics of this entire process do not make a bit of sense, especially now in the troubled economic climate of our nation, state and industry.	See discussions of compliance and enforcement, staffing costs and resources and improving efficiency of data and information use and management: Staff Report Section 2, Staff Report Appendix I: Background; Staff Report Appendix F: Cost Considerations, Section 2.3 and Appendix D. Options Considered, Section VII.D. Agricultural Regulatory Program Enforcement and Implementation; Agenda Item No. 12 for September 2, 2010 Water Board Meeting at: http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2010/sep/item_12/stfrpt_12.pdfAppendix Staff did not evaluate the costs of coalitions explicitly, as staff views coalitions as an organizational structure for growers to join,

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	The Ag Alternative includes the Coalition Concept and allows for random audits of priority areas so that resources are spent in productive ways to define issues of importance, challenges and forge an understanding of solutions available to a grower. A grower's investment in the Coalition system will do much more to benefit water quality than any of the requirements set forth in staff's proposal will.	as a voluntary option, to facilitate their individual compliance with the conditions of the Draft Agricultural Order. The Draft Agricultural Order allows individual growers to join coalitions and take advantage of functions that may be more efficiently or economically implemented by a third-party on behalf of a group of growers, such as cooperative monitoring, reporting, and collective or regional treatment systems, to comply with the Order (see Conditions 10, 39, 40, 50, 76, 104). However, this is not a required condition of the Draft Agricultural Order. Therefore, staff's cost evaluation focused on the individual costs to growers to implement management practices, monitor and report pursuant to conditions in the Order. The range of costs differed mostly based on differing costs of management practices and monitoring. The economic analysis conducted for alternatives for the Long-term Irrigated Lands Program for the Central Valley Water Board (Central Valley Regional Water Quality Control Board, 2010) also found the costs of different alternatives, including some using coalitions and some without, was driven by differing costs of management practices, and not by whether or not growers could form coalitions. Furthermore, the California Farm Bureau Federation and the other Agricultural Organizations that jointly submitted the Agriculture's Alternative Proposal did not provide any information on cost of coalitions even though they were included as a new and different option than proposed in the Draft Agricultural Order or in previously submitted alternatives. The Central Valley Water Board staff intends to evaluate water quality data and implementation via coalitions to determine whether they can measure water quality improvement and the extent to which coalitions contributed to improvement, but they have not yet completed such an evaluation. Central Valley Water Board staff has approved the "completion" of a couple of management plans in areas where data shows impaired water

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		bodies were recently meeting water quality objectives. The East San Joaquin Water Quality Coalition reported that their efforts "can make a measurable difference to the impact of farm inputs on waterways", but acknowledged that "one year's results are not adequate to claim that water quality problems originating from irrigated fields are eliminated …does not support assurance that implementation is fully effective." The Central Valley Water Board has not reviewed this report or the data for concurrence with the conclusions. (see http://www.esjcoalition.org/201011Status2009.pdf). Therefore, Central Coast Water Board staff finds the assumptions that the coalitions allow resources to be spent in productive ways and that they will do much more to benefit water quality as speculative.
Comment No. 374 from Martin Jefferson & Sons. Letter No. 11, p.3. General (Authority, Pesticides)	Regulations regarding pesticide application buffers and requirements are onerous and already exist through the regulatory channels of the Department of Pesticide Regulations and safeguarded by the County Ag Commissioner. This entire section of the Staffs draft is redundant to existing regulations. Audits under the Coalition(s) will likely focus on Chlorpyrifos and Diazinon use on acreage with irrigated water runoff to dovetail with current DPR and County Agricultural Commissioner jurisdiction. This is meant to help educate growers, not confuse the jurisdictions of current regulation.	See discussion of overlapping jurisdiction with Department of Pesticide Regulations and County Agricultural Commissioners in Staff Report Appendix D, Section VII. Coordination with Department of Pesticide regulation and Coordination with Department of Fish and Game. The Draft Agricultural Order includes conditions that appropriately apply to the Water Board's jurisdiction for pesticides that are discharged to receiving waters as a waste discharge that threatens or causes an exceedance of water quality objectives and impacts beneficial uses. See also, responses to Letter 79 (CEQA Comment No. 502 in Attachment A to the SEIR in Appendix H).
Comment No. 172 from Martin Jefferson & Sons. Letter No. 11, p.2. Implementation, Nutrient Management	One of the most bothersome portions of the staff proposal is the submission of a grower's Farm Water Quality Plan. Any type of farming data that becomes PUBLIC RECORD IS RIDICULOUS! Even though we as growers work together within our industry groups to protect agriculture, we each have our own "recipe" for success in order to maintain our competitive edge. If we were required to submit information regarding our day to day farming practices to the public, it would kill the	The February 2010 Preliminary Draft Order proposed implementation tracking to be documented in the farm plan and submittal of the farm plan to the Water Board. The revised November 2010 Draft Order proposes tracking of implementation in the farm plan and that the farm plan is kept on the farm. Regional Board Staff, however, will review the Farm Plan during inspections and under specific circumstances that warrant it. Staff may request an Operation submit their Farm Plan via Section 13267.

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	industry, eliminating the entire structure of agriculture on the Central Coast.	To determine an individual grower's compliance, however, there is a compliance document to be submitted annually to the Water Board. The Annual Compliance Document is necessary to provide current information to the Central Coast Water Board to assist in the evaluation of threat or impact to water quality from agricultural discharges and evaluate progress towards compliance with this Order, including implementation of management practices. If a Discharger believes that any information requested by the Regional Board would reveal a trade secret, they would have to demonstrate that to the Board's satisfaction, and the information would be kept separate from other public records and would not be disclosed to members of the public except as required by law (e.g., pursuant to a court order). The Draft Order has been clarified to explain the process for protecting trade secrets.
Comment No. 237 from Martin Jefferson & Sons. Letter No. 11, p.2. Monitoring/Reporting	Large investments have been made by the industry over the past five years by investing into the monitoring program that Preservation, Inc. conducts. It has been scientifically proven that 10 years worth of data is just the STARTING point of a valid set of water quality data. Why change this, discourage this or re-invent the program and procedures. There is no need! The Ag Alternative includes continuation the current monitoring program with some updates based on our findings over the past five years. On-Farm Sampling will be suggested to the grower so that they have a strong understanding of their water quality situation. These sample tests will be kept in the Farm Plan.	We agree that the Cooperative Monitoring Program is producing important data that is now beginning to have the capability to show change where it is occurring and allow us to determine if the program is successful at improving water quality. Very few locations have shown positive improvement to date. Additional discharge monitoring requirements are being added to address individual accountability, and to help direct management and enforcement efforts where they will be most effective.
Comment No. 238 from Martin Jefferson & Sons. Letter No. 11, p.3.	The commenter believes turbidity standards are unrealistic	Water Code section 13269 requires the Water Board in a waiver of waste discharge requirements to require compliance with the Basin Plan. The Basin Plan contains standards that apply to

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Monitoring/Reporting		turbidity. The conditions in the waiver implement the turbidity objectives.
Comment No. 487 from Martin Jefferson & Sons. Letter No. 11, p.3. Timing/Schedule	Lastly, the most ridiculous "concept" in the Staffs version is regarding the "conceptual plan for groundwater monitoring"; the timelines associated with elimination of irrigation runoff and the sediment and turbidity standards. Are they for real? The timeline proposed is preposterous; not containing any scientific reasoning behind it and creating a no-win situation for the industry and fostering a negative image that will be placed on the RWQCB when these standards cannot be achieved. The Ag Alternative creates a start with the coalition approach in resolving issues on a watershed level which is a much more achievable concept.	Timeline explanations were inadvertently left out of the staff report. This information has been added to the Staff Report, Section 3.B. The basis for the timelines in the Draft Ag Order is as follows: Significant improvement can be measured within the five-year term of the Draft Agricultural Order and timeframes described within. Staff found that the recommended milestones and timeframes are reasonable and appropriate given the severity and magnitude of water quality problems in the agricultural areas of the Central Coast region. Staff's recommendation for milestones and timeframes is based upon known half-lives of pesticides known to cause toxicity (e.g. half-lives of chlorpyrifos and diazinon are significantly less than two years) and demonstrated success at reducing nutrient and sediment loading through on-farm improvements implemented as part of grant-funded projects, waste discharge control required by the Water Board and independently by individual growers. See further discussion of timeframes and milestones in the analysis of the California Farm Bureau *Federation's Draft Central Coast Agriculture's Alternative Proposal for the Regulation of Discharges from Irrigated Agricultural Lands* in Staff Report, Appendix D. Options Considered, Section VII. Regarding the timelines associated with elimination of irrigation runoff, please note that timelines included in table 5, page 38, require that the discharge of irrigation water do not cause or contributes to exceedances of sediment, turbidity, and nutrient standards. The "elimination" of irrigation runoff is not a requirement, rather a means for compliance with the requirements and timelines included in the table. Staff believes that by improving the irrigation system efficiency, irrigation layout, and water application rates to be compatible with soil intake rates,

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		the ag community will be able to eliminate irrigation water discharges to surface waterbodies. Note that loading targets could be met by reducing the flow volume of water, by reducing the nitrate concentration, or by reducing both.
Comment No. 120 from Form Letter - Thomas Gibbons, etc. Letter No. 12, p.1. Groundwater 12-1, 37-1, 52-1, 59-2, 115-2	There is no mention of any geology or soil types related to well nitrate loads or groundwater percolation. Water tables are generally fluid in nature and water percolating from one farm may not directly attribute to the underlying water table nitrate load.	With regard to geology or soil types- please see response to Letter 79 (Comment No. 439). With regard to nitrate transport to the water table: any moisture not taken up by roots generally travels downward until reaching the water table. Depending on the variability in the underlying geological formation or soil, there can be some horizontal movement in the unsaturated zone, but considering the breadth of typical farm field or ranch, the horizontal movement is insignificant. One exception is the presence of perched zones that can transport groundwater horizontally from its origin before it reaches the water table. Any monitoring programs will need to consider the significance of perched groundwater, if present beneath the site. As there is a high level of variability with regard to geology and soil types throughout agricultural areas in our region, nitrate loads and percolation rates will have to be determined on a case by case basis. The latter part of the comment is noted and correct, but groundwater impacts are generally a result of surface loading directly above that part of the groundwater basin. Again, this will have to be evaluated on a case by case basis if necessary.
Comment No. 151 from Form Letter - Thomas Gibbons, etc. Letter No. 12, p.1. Groundwater (Legacy Nitrates) 18-1, 28-2, 37-1, 114-2	Baseline legacy nitrates are not defined or known. Baseline legacy nitrate loads are necessary prior to measuring possible nitrate loads from farming practices. Further, differing soil types, percolate rates, water table levels, and manner of surface nitrate irrigation application must be considered prior to determining possible nitrate loads due to farming practices.	Baseline legacy nitrate concentration are well defined within some areas, and in some areas where they are defined, these data are not publicly available or are protected by confidentiality agreements. This is one of the key reasons why it is necessary to require regular water quality monitoring and reporting from agricultural supply wells – to establish current baselines and track trends in nitrate concentrations over time. It is generally understood that the noted parameters will be considered by individual growers or grower groups to demonstrate compliance with the Order.

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		Staff evaluated many factors when considering the risk that a discharger poses to contaminating groundwater. Staff's risk factors for groundwater contamination were assigned without including soil factor (as well as geology, groundwater/vadose zone movement) because it would be too difficult to determine, especially when irrigation blocks are not divided by soil type. For dischargers to define the risk themselves, staff decided on minimizing the factors assigning risk to three. The Draft Order requires that Tier 2 and Tier 3 dischargers calculate the nitrate loading risk factor for their operation(s). The nitrate loading risk factor is a measure of that particular operation's relative risk of loading nitrate to groundwater. Nitrate loading risk factor uses three criteria (crop nitrate hazard risk, irrigation type and irrigation water nitrate concentration. Due to variability of farm conditions, dischargers may choose to subdivide the ranch/farm into "nitrate loading risk units". Dischargers calculating a High Nitrate Loading Risk will have additional evaluating and reporting requirements. Tier 3 dischargers are required to implement a nutrient management plan with an help from an expert who has reviewed all necessary documentation and testing results, evaluated nutrient balance calculations (total nitrogen applied relative to typical crop nitrogen uptake and nitrogen removed at harvest), evaluated estimated nitrate loading to groundwater, evaluated progress towards nutrient management targets, and conducted field verification to ensure accuracy of reporting. The INMP manages the nutrients applied to each farm/ranch or nitrate loading risk unit considering all sources of nutrients, crop requirements, soil types, climate, and local conditions in order to minimize nitrate loading. These Dischargers will have to meet the nitrogen balance ratio targets or implement an alternative to demonstrate an equivalent nitrogen load reduction.

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Comment No. 173 from Form Letter - Thomas Gibbons, etc. Letter No. 12, p.1. Nutrient Management (Tile Drains) 37-1, 59-2	There is no science developed to support the assertion that nitrate levels can be reduced to a compliance level within a 4 year time frame. Most tile drains were installed decades ago and many current landowners and tenants may not be aware of their exact location and flow rates; unless specific science is developed to confirm that nitrate loads can be reduced through a best management practice, this time frame is arbitrary.	The Draft Order specifies that within four years from the adoption of the Order, Tier 3 Dischargers must demonstrate that they are "not causing or contributing to exceedances of water quality standards for nutrients and salts in surface waters of the State or of the United States." This differs from Operators being required to meet water quality standards. Those Dischargers may have to implement best management practices, treatment or control measures, or change farming practices to achieve compliance with this Order (not including subsurface drainage to tiledrains) and will have to submit a Monitoring and Reporting Program. The four-year timeframe will allow Staff to evaluate the program and Discharger's progress made toward water quality improvement and will aid with development of additional, future requirements Staff recognizes that the pollution caused by irrigated agriculture is significant and will not be resolved in a short time frame. Staff's priority in the short term is to take deliberate steps towards water quality improvement and eliminate or reduce agricultural discharges that load additional pollutants to water bodies and groundwater basins that are already polluted or at high risk of pollution. Please note that the Draft Order requires that Tier 3 dischargers with tile drains to estimate the loading of N to surface waters, to measure their loading contribution to surface water impairments. The 4 years targets included in table 5, page 38, are related to irrigation runoff. However, Staff does expect Operators to implement nutrient management practices (e.g., minimize leaching) to minimize fertilizer and nitrate loading to surface and groundwater, to meet the Irrigation and Nutrient Management Plan (INMP) N application targets, and the irrigation runoff loading reduction targets for surface waters, included in table 5 on page 38. To further clarify, operators must demonstrate that discharge is not causing or contributing to exceedances of nutrient water quality standards in waters of the State or United States NOT

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		including subsurface drainage to tile drains. The Central Coast Water Board anticipates longer timeframes to address tile-drain discharges for inclusion in a subsequent Agricultural Order. Also, Please see responses to Letter 16 (Comment No. 175).
Comment No. 486 from Form Letter - Thomas Gibbons, etc. Letter No. 12, p.1. Tiers 59-2	The appeal process to be removed from Tier 2 or Tier 3 is undefined and has no clear time frame for decision. For example, a farmer who has no discharge into any 303(d) waterbody and does not apply the chemicals listed in the order would be classified as Tier 3 if their land is within the 1000 feet setback specified from that waterbody.	See added discussion regarding Tiers in the Staff Report Section 3C: "Justification for Staff Recommendations and Options Considered" Also see responses to Letter 7 (Comment No. 478), Letter 8 (Comment No. 479), and Letter 10 (Comment No. 482). The Central Coast Water Board will prioritize and review requests for transfers to different tiers as quickly as possible given the resources available. The example provided in Comment 9 would not be included in Tier 3 based on the criteria described in the comment alone, but could be a Tier 3 Discharger if the operation is greater than or equal to .s and the Discharger grows crops with high potential to load nitrate to groundwater. Many of the signatories to this comment letter operate vineyards. If the example provided is a SIP certified vineyard, then it would be classified as Tier 1 per staff's proposed edits to the Draft Ag Order.
Comment No. 11 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.4. Aquatic Habitat/Buffers	The provisions regarding the Water Quality Buffer Plan, Part VI, F (page 16) are internally inconsistent. The first sentence states that a Buffer Plan is "required for subset of Tier 3 Dischargers that have operations that contain or are adjacent to waterbody impaired for temperature or turbidity." This is the same as the description of the Water Quality Buffer Plan in the proposed Order at page 27, paragraph 92. However, in the MRP, at Part VI, F, subparagraph 1, the definition is changed to "Tier 3 Dischargers located within 1000 feet of a water body and in the drainage area of a waterbody…" This expands the	Regional Board staff has addressed this issue by changing the MRP to be consistent with the Order language. Additionally, the Order language quoted above was changed to also include sediment.

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	scope of Tier 3 growers subject to this provision and is contrary to the proposed Order.	
Comment No. 12 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.4. Aquatic Habitat/Buffers	The buffer requirement is unclear as to its applicability if the farm is separated from the waterbody by a levee or other drainage ditch which does not allow discharge to flow directly from the farm to the waterbody.	As proposed, Tier 3 dischargers in certain locations are required to prepare a water quality buffer plan. If discharges of waste to waters of the state do not occur, the buffer plan would simply document that – a new plan would not be required. Also, see response to Letter 15 (Comment No. 8).
Comment No. 406 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.4. Implementation, Groundwater (Monitoring)	ii. Part III, A, 9, dealing with High Nitrate Loading Risk to groundwater, directs that the grower verify the effectiveness of the INMP "in protecting groundwater quality and achieving water quality standards for nitrate." This is an impossible request given the limited ability of a grower to extrapolate lysimeter and soil monitoring for this goal. The objective of the paragraph would remain the same if the quoted phrase was deleted.	See response to Letter 72 (Comment No. 204).
Comment No. 240 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.2. Monitoring/Reporting	Cooperative Monitoring Program (CMP) is not specifically addressed in the MRP. Discussions with RWQCB staff indicate that the phrase "Receiving Water Quality Monitoring" as used in the MRP at page 3 is similar to the existing CMP and that most growers would elect to have a third party conduct Receiving Water Quality Monitoring similar to the way CCWQP manages the current CMP. However, the MRP is confusing in that Part I is titled "Monitoring Requirements for all Dischargers".	Staff reorganized the Monitoring and Reporting Program to help clarify and to reduce confusion. We have included language that the receiving water monitoring can be addressed through the existing cooperative monitoring program. We retained the option that growers may conduct comparable receiving water monitoring as individuals. The Order does not require dischargers to participate in the Cooperative Monitoring Program.
Comment No. 241 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.2. Monitoring/Reporting	Stormwater sampling (MRP page 19): CCWQP presently conducts monthly monitoring, which includes 2 stormwater events. The proposed monitoring calls for 12 monthly samples plus 2 stormwater events. This Ag Waiver Comments Page 3 of 5 December 27, 2010 will increase the cost of this portion of the program without adding any data which is not currently obtained. It is	Staff amended the Monitoring and Reporting Program to reflect this comment.

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	recommended that the monitoring remain at monthly including 2 stormwater events within the winter monthly monitoring.	
Comment No. 243 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.2. Monitoring/Reporting	Metals (page 21): The requested metals are not used in commercial agricultural operations and should not be included in the monitoring program.	Some metals are constituents of some commonly applied agricultural chemicals. Several supporting references have been added to Table 2 of the Monitoring and Reporting Program. If monitoring shows they are not causing water quality problems they will be eliminated from future monitoring requirements.
Comment No. 242 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.3. Monitoring/Reporting	Pathogens (MRP page 20): The proposed MRP calls for quarterly and 2 stormwater testing (6 times per year) at CMP sites each year for fecal coliform and E. coli. This monitoring is not warranted as there is no showing that either class of pathogens is present in irrigated agricultural discharges.	Staff agrees and eliminated fecal coliform monitoring from receiving water monitoring requirements.
Comment No. 244 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.3. Monitoring/Reporting	Review of the references cited in Appendix J did not reveal any support for the premise that phenols are causing toxicity or other impairments to water as a result of agricultural discharge. There are no findings supported by reviewed research that phenol is causing a impairment to water quality in the region. Furthermore, there are no findings that phenols are present in the water as a result of irrigated agriculture. For these reasons, phenol should not be included in the list of parameters and tests.	Phenols are a component of some commonly used herbicides. Some phenols (such as nonylphenol) are causing serious endocrine disruption problems in some areas (such as Morro Bay). A finding has been added to the Order to reflect this. If phenols are not found to be of concern in agricultural areas they will be eliminated from future monitoring requirements.
Comment No. 246 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.4. Monitoring/Reporting 64-7	Individual Monitoring for Toxicity (page 23): The staff report states that the primary source of surface water toxicity in agricultural waterbodies is resulting from Chlorpyrifos and/or Diazinon. The proposed Individual Monitoring includes testing for both OP's and two additional toxicity tests. The toxicity testing is redundant and very expensive. Therefore, it is recommended that if OP testing is conducted the two species toxicity testing	Toxicity tests are necessary because there are many other sources of toxicity besides chlorpyrifos and diazinon. These two chemicals appear to be the major sources of toxicity in water, but they are not the only sources. A recent follow-up study confirms that pyrethroids are the largest source of toxicity to sediment. Also, toxicity tests help assess impacts from chemical additivity and synergism (where one chemical enhances the toxic effect of another chemical.

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	be eliminated from this procedure.	
Comment No. 245 from Central Coast Water Quality Preservation, Inc. Letter No. 13, p.4. Monitoring/Reporting	It is not clear what is meant by "must select monitoring points to characterize a representative sample of at least 80 percent of the estimated irrigation run-off discharge volume from each farm/ranch …"	The intent here is that the majority of the discharge leaving a farm at a given sampling event be characterized by the sample or samples. Staff clarified language in the Monitoring and Reporting Program about this.
Comment No. 7 from Ocean Mist and RC Farms. Letter No. 15, p.9. Aquatic Habitat/Buffers	The waiver has several provisions relative to aquatic habitat, riparian areas, and vegetative cover. We recognize that vegetative buffers have importance in controlling residue run off. We therefore have had concerns relative to the food-safety restrictions which have resulted in the mandated removal of vegetation from many of these buffer areas. We therefore do not challenge reasonable efforts to provide such effective buffers.	Comment noted. Also, See response to Letter 79 (Comment No. 4).
Comment No. 8 from Ocean Mist and RC Farms. Letter No. 15, p.9. Aquatic Habitat/Buffers	Merely one argument as to the inappropriateness of the 30 foot vegetative buffer is that there is no requirement or guarantee that any of the irrigation run off water would even transit the buffer area.	Water Code section 13269 requires a waiver to be consistent with the Basin Plan and other applicable state plans. The Basin Plan includes a requirement for filter strips; the proposed order implements that Basin Plan requirement by focusing on the highest risk areas near impaired water bodies. The waiver addresses not only discharges of irrigation water, but discharges from irrigated lands due to stormwater. The purpose of the Water Quality Buffer Plan is to address discharges of waste from irrigated lands, including discharges in irrigation runoff or stormwater. If you have no discharges of irrigation water or storm water, then you can describe that in a written document to the Board. If there are discharges, the discharger must implement a Water Quality Buffer Plan or an alternative that demonstrates that any discharge of waste is sufficiently treated or controlled such that it is of sufficient quality where it will not cause or contribute to exceedances of water quality standards and that riparian functions are being met. For example, where there is bare soil, stormwater runoff may contribute to exceedances of water quality

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		standards. Bank sloughing and erosion, and stormwater and aerial transmission of sediment need to be taken into account as well. According to Micheli et al., 2004, agricultural floodplains are approximately 80 to 150 percent more erodible than riparian forest floodplains. In any case, preventing irrigation run off water from draining into a receiving water body through a buffer area would likely minimize erosion or other discharges of waste. Similarly, insuring that all runoff is routed through a buffer will likely improve water quality and minimize waste discharge affects such as erosion.
Comment No. 628 from Ocean Mist and RC Farms. Letter No. 15, p.9. Aquatic Habitat/Buffers (Takings)	The attempt to exercise land use authority and crop control authority by mandating what growers must grow in certain locations of their fields is illegal. The Regional Board has no authority to require certain vegetation to be planted in certain areas, or to compel the removal of certain vegetation. A. … There may, however, be some legitimate water quality issues resulting from this situation, but they appear temporary in nature. However, this does not give the Regional Board jurisdiction to become a land use agency. … however, nothing has changed the jurisdictional limitations of the Porter-Cologne statutes to make the Regional Board the agricultural or plant and wildlife agency, or to give them authority over production or land use. B. The staff proposal attempts to turn this Board into the regional land use authority by requiring these 30 foot vegetative buffer zones not only raises legal liability issues, but would take tens of thousands of productive ground out of production. This would constitute a regulatory taking of private property and is well beyond the agency's authority.	Water Code section 13269 requires any waiver of waste discharge requirements to be consistent with the Basin Plan and the State Water Board's Nonpoint Source Policy and to be in the public interest. The Basin Plan contains an implementation program requiring filter strips to protect waters of the state from land disturbance activities (Basin Plan page V-13, #4 and NPS). The Water Code and the Basin Plan and NPS Policy also require protection of the beneficial uses of waters of the state. The conditions in the 2011 Draft Order with respect to aquatic habitat, riparian buffers, and vegetative cover provisions are consistent with the Water Code, the Basin Plan, the NPS Policy, and the public interest. The 2011 Draft Ag Order is consistent with Water Code section 13360; The 2011 Draft Order does not explicitly require 30 foot buffers, but in certain circumstances requires a buffer of 30 feet or other management practice to control waste discharges and to assure protection of the beneficial uses of waters of the state (Basin Plan page V-13, #4). With respect to the comment on takings, see response to Letter 79 (CEQA Comment No. 497 in Attachment A to the SEIR in Appendix H).

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	C. Further, the buffer restrictions advanced violate Water Code section 13360. Section 13360 prohibits the Central Coast Water Board from dictating the manner of compliance. In this case, the waiver proposes to set forth specific prescriptions for which growers would need to engage. As such, these specific vegetative buffer requirements dictate the manner of compliance and are not, therefore, lawful.	
Comment No. 631 from Ocean Mist and RC Farms. Letter No. 15, p.12. Aquatic Habitat/Buffers, Implementation (Bare Soil)	The waiver proposes minimum riparian buffer widths of 30 feet and mandates that growers maintain vegetation in the buffer zones, and would prohibit the removal of vegetation undertaken to protect food safety. These aquatic habitat requirements are regulations that deprive agricultural landowners of the economic benefit of their private property. Deprivation in this manner constitutes a taking under the State and Federal Constitutions. (*See Penn Central Transp. Co. v. City of New York* (1978) 438 U.S. 104 and its subsequent series of cases.) The Central Coast Water Board proposes to dictate that vegetative buffers must be maintained, clearing of vegetation is prohibited, and creating bare dirt is prohibited. All of these requirements clearly dictate how to comply with the general requirement to protect aquatic habitat. These are unlawful restrictions because they describe how a grower must operate which is inconsistent with section 13360 of the Water Code.	With respect to regulatory takings, see response to Letter 79 (CEQA Comment No. 497 in Attachment A to the SEIR in Appendix H). With respect to dictating vegetative buffers, see response to Letter No. 15 (Comment No. 628). See also response to Letter 82 (Comment No. 638).
Comment No. 376 from Ocean Mist and RC Farms. Letter No. 15, p.2. General (Importance and economic value of ag)	The Regional Board's waiver should expressly recognize the importance of agriculture as the dominant and most important economic engine in the region and that these extensive regulatory efforts to control irrigation and drain water constitutes a major undertaking. The Board should further recognize that reasonable phase-in	Comment noted. See Staff Report, Staff Report Appendix F and Draft Order Findings, particularly Numbers 24, 25, 27 and Part A. Additional Findings 9 and 120.

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12-2, 14-1, 18-2, 63-1, 115-2	periods and a high level of coordination and cooperation between the agriculture community and the Regional Board is necessary to facilitate effective waiver implementation.	
Comment No. 623 from Ocean Mist and RC Farms. Letter No. 15, p.4. General (Discharger Definition)	The staff waiver directs this regulatory program to apply both the landowner and the annual lessee (described as the operator) (¶ 52). The ultimate legal responsibility lies with the landowner, and the Regional Board's enforcement capacity is limited to the discharging landowner. Therefore, landowners should be the target of the waiver. It offers no problem to clarify that the target is the landowner as the landowner is expressly responsible to have his lessee compliant with the waiver requirements (¶¶ 8 and 15). It is also the landowner that can make the major improvement, such as the construction of retention / recirculation systems, cap abandoned wells, etc. Splitting this responsibility raises confusion and creates an opportunity for people to point to the other as the real responsible party.	The Water Code requires the Water Board to regulate persons who discharge waste that could affect the quality of the waters of the state; such persons may be owners or operators. While owners are ultimately responsible for actions on their property, in some cases, the operator may have more direct control. The Order allows either the owner or operator to submit an NOI. If the Water Board were to take enforcement action for violations of the waiver, it would take into consideration the legal and practical responsibility for the cause of the violation in determining the level of enforcement. The staff has made revisions to the draft order to provide more clarity.
Comment No. 659 from Ocean Mist and RC Farms. Letter No. 15, p.4. General (Education)	The proposed staff waiver requires farmers to have 15 hours of water quality education within the first 18 months. (¶¶ 75-77) We have no objection to this requirement.	Staff considers education valuable for the purpose of assisting growers with appropriate implementation that will reduce their pollution loading and improve water quality. However, Staff does not consider education an important action to track or enforce and has removed the education requirements from the revised Draft Order. Also, see response to Letter 2 (Comment No. 658).
Comment No. 378 from Ocean Mist and RC Farms. Letter No. 15, p.5. General (Farm plans and management practices)	The proposed waiver also requires each farm to have an individual farm water management plan identifying the implementation of management practices in five areas: 1) irrigation management, 2) pesticide management, 3) nutrient management, 4) sediment control, and 6) aquatic habitat protection. (Draft Order paragraph 73-	Staff agrees with these areas of focus. See response to Letter 76 (Comment No. 212).

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	74) These are the correct areas of focus.	
Comment No. 624 from Ocean Mist and RC Farms. Letter No. 15, p.5. General (Authority, Pesticides)	Pesticides are regulated by DPR. (Food & Agr. Code, § 11454.) Among DPR's purposes are (1) protecting public health and safety; (2) protecting the environment; (3) assuring that pesticides are properly labeled; and (4) encouraging the implementation of biological and cultural pest control techniques when appropriate. (Food & Agr. Code, § 1502.) The California Legislature has expressly declared that, "matters relating to (pesticides) are of a statewide interest and concern and are to be administered on a statewide basis by the state unless specific exceptions are made in state legislation for local administration." (Stats. 1984, ch. 1386.) The Central Coast Water Board is not vested with the authority to regulate or restrict pesticide use. As the Food and Agriculture Code indicates, the DPR is vested with the authority to regulate and restrict the use of pesticides in California. The Central Coast Water Board's authority is limited to matters that pertain to water quality. (Wat. Code, § 13225.) It does not include the authority to direct growers with regard to pesticide applications.	The 2011 Draft Ag Order does not direct growers with regard to pesticide applications. It does require growers to take appropriate actions to assure that discharges of waste, including pesticides, do not result in exceedances of water quality standards. The Water Board has authority under the Porter-Cologne Water Quality Control Act (Water Code Division 7) to regulate discharges of waste. The term “waste” as defined in Water Code section 13050, includes pesticides. See also responses to Letter 79 (CEQA Comment No. 502 in Attachment A to the SEIR in Appendix H and Comment No. 511).
Comment No. 409 from Ocean Mist and RC Farms. Letter No. 15, p.6. General (Discharger Definition)	As to the groundwater protection components of the proposed waiver, we understand the provisions concerning well casings, back flow prevention, and abandoned wells. These provisions, however, must only attach to the landowner. Therefore, this entire waiver should be limited to directly regulating the landowner. (Draft Order paragraph 64)	See response to Letter 15 (Comment No. 623).
Comment No. 626 from Ocean Mist and RC Farms. Letter No. 15, p.6. General (Point of compliance, Authority)	In that the Regional Board's jurisdiction commences only when there has been a discharge to waters of the state (a more difficult premise as to groundwater than it is as to surface water), the Regional Board must offer some supportable authority on where that discharge point	The Water Board has the authority and responsibility to regulate discharges of waste that could affect the quality of waters of the state, not just when there has been a discharge or waste to waters of the state. See Cal. Water Code § 13260. The 2011 Draft Order does not require compliance with water quality

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	occurs for purposes of this regulation. Clearly, the position advanced in ¶ 31 that the quality of water is measured at where irrigation water enters the ground is legally and factually incorrect. This issue is important, generally, but also has direct bearing on the proposed requirement that irrigation containment structures must take steps to avoid percolation to groundwater. The Board has been focused on growers controlling field discharge and to specifically protect surface water. Therefore, these types of management practices (containment, ponds, berms, etc.) are encouraged, and should not now be discouraged by this waiver provision. The waiver should not be inconsistent within itself. Therefore, clarity must be provided to growers on this jurisdictional issue, and this particular feature should be eliminated. (¶ 34)	standards where irrigation water enters the ground, but rather requires evaluation of the quantity of waste, e.g., nitrate, to ultimately assure that when the waste gets to waters of the state it results in meeting water quality objectives in the groundwater.
Comment No. 630 from Ocean Mist and RC Farms. Letter No. 15, p.12. General (Prohibitions)	The draft waiver includes discharge prohibitions that exceed relevant provisions in Porter- Cologne. Porter-Cologne provides that "[a] regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted." (Wat. Code, § 13243.) The Porter-Cologne waiver authority in Cal. Wat. Code § 13269 is, however, more narrow and does not authorize a regional board to do blanket prohibitions of discharges as part of a waiver. The staff waiver draft also contains discharge prohibitions which are unlawful because they are outside the Central Coast Water Board's authority to regulate and protect water quality. Provisions such as those which would prohibit the use of fertilizers in excess of crop needs are without authority. The Water Board has no authority to dictate or control the amount of fertilizer used by any grower. The Central Coast Water Board	Water Code section 13269 requires the Water Board to include conditions in any waiver. Prohibitions are proposed as conditions in the order. The Draft Order has been revised to remove some of the prohibitions and place them into the General conditions. See response to Letter 79 (CEQA Comment No. 497 in Attachment A to the SEIR in Appendix H) with respect to regulatory takings. The Draft Order has been revised to remove some of the prohibitions and place them into the general conditions.

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	also has no expertise to determine if fertilizer application is in fact in excess of crop needs, and no capability to administer such prohibition. The Central Coast Water Board is also attempting to control planting of vegetation which also exceeds the Central Coast Water Board's authority, and would constitute a regulatory taking.	
Comment No. 408 from Ocean Mist and RC Farms. Letter No. 15, p.5. Implementation (Farm plan)	D. We point out that there is not a lot of detail in the draft waiver as to the actual content of these components of the farm plans, and the Regional staff should work with the ag community and university in developing these components of the farm plans. (Draft Order paragraph 73)	In the past, staff has developed farm plans in coordination with the UC Cooperative Extension staff, who helped with the coordination and development of classes to fulfill the education requirements, and created a farm plan template. We currently support the use of the originally created farm plan template and practices, which include irrigation management, nutrient management, pesticides management, and erosion control. However, the Water Board does not specify or enumerate what practices or measures should be implemented on each farm/ranch because the technical service providers and growers have pointed out that the practices to be implemented depend upon the local conditions and the grower's farm management style. Water Board staff recognizes that having flexibility in choosing what measures and practices to be implemented on each farm/ranch is crucial in improving water quality. See response to Letter 76 (Comment No. 212).
Comment No. 625 from Ocean Mist and RC Farms. Letter No. 15, p.6. Implementation (Authority, Nitrate controls, point of compliance.)	The proposed nitrogen application limits per crop type raise significant legal issues. The Regional Board's authority commences at the discharge point, and the Regional Board getting "into the field" to dictate specific elements of the farm's management practices raises both jurisdictional authority, and legal issues. The Regional Boards cannot tell PGE how to run a utility or Chevron how to operate a refinery – only what and how much they can discharge. The same is true and of even greater importance relative to the region's agriculture. The extensive provisions as to nitrate controls (¶¶ 79-91)	Pursuant to Water Code section 13267(b)(1), the Water Board may require technical reports of any person who discharges waste, has discharged waste, or is suspected of having discharged waste. The Water Board has significant evidence, as identified in the record for this matter and summarized in the staff report, to demonstrate that use of nitrogen in agriculture has resulted in discharges of nitrogen waste to waters of the state or that threaten waters of the state. The Water Board, therefore, has the authority to require technical reports to use to evaluate the impacts of the discharges on waters of the state. As specified in Water Code section 13267(b)(1), persons submitting the

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	are extreme and will significantly impede farmers management and crop performance.	reports may request that trade secrets or secret processes be kept from disclosure to the public. Based on such a request, such information would not be disclosed to the public.
Comment No. 627 from Ocean Mist and RC Farms. Letter No. 15, p.6. Implementation (Alternative drinking water)	This, as discussed further below, is significant enough, however, there is another provision suggesting that dischargers may be compelled to supply alternative drinking water to those relying on groundwater with high nitrates. This is wholly beyond the scope of the appropriate scope of the waiver. Such a remedy would only be appropriate by an enforcement action. This provision which threatens growers by stating that the Central Coast Water Board may require growers to provide alternative water supplies pursuant to Water Code section 13304. Regulatory authority for such action is, however, lacking. How would the Central Coast Water Board require growers to provide alternative water supplies? Water Code section 13304 is an enforcement mechanism which allows regional boards to issue Cleanup and Abatement Orders. Only by use of a Cleanup and Abatement Order, may a regional board require replacement water to be provided. To issue a Cleanup and Abatement Order, however, the Central Coast Water Board will need to provide substantial evidence that the grower in question was directly causing the condition of pollution or nuisance. It is not an authority that the Central Coast Water Board may use without appropriate due process, and is not to be a part of a regulatory notice. It is an exclusively enforcement action. It could also be ordered per a court order, but only after full factual evidence hearing showing that there is a water quality exceedance, proving a direct relationship by the particular discharger's actions, and a direct connection to the specific aquifer utilized by the domestic user.	The 2011 Draft Ag Order does not require any person to supply alternative drinking water; the Order simply cites the Water Code provision and authority for the Water Board to make such a requirement. The commenter is correct that such a remedy would be appropriate as an enforcement action. Water Code section 13304 explicitly authorizes the Water Board to require responsible persons to provide alternative water in certain circumstances and after appropriate findings are made as stated by the commenter.

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Comment No. 413 from Ocean Mist and RC Farms. Letter No. 15, p.7. Implementation (Recycled water, Tile Drains) 15-2, 33-1, 107-2	We also note the importance of tile drains and tail water ponds to much of the region's agriculture, and suggest that such importance be acknowledged in the waiver. Moreover, the waiver needs to not only recognize, but be sure not to impact the region's important water reclamation projects involving the use and cleansing of recycled urban water. The use of recycled water has reached widespread acclaim from municipal users, regulators, environmentalists, and those interested in water conservation and reuse. For purposes of this discussion, agriculture in Monterey County has taken low quality municipal discharges that would otherwise have gone directly into the ocean and have used them for irrigation and improved the quality of the water as it returns to the environment. Consequently, not only are we 1) conserving water, 2) reusing water, and 3) taking problem discharges from municipalities, but we are discharging far cleaner water than what would have been discharged by the municipalities. It is for those reasons that these programs have reached widespread acclaim. The Regional staff proposal must take care not to impact these programs. California Water Code section 13241(F) expressly encourages the use of recycled water. This staff proposal could put this highly acclaimed water re-use program in jeopardy.	Regarding tile drains, see response to Letter 16 (Comment No. 175) and Letter 82 (Comment No. 639). Regarding water recycling, see response to Letter 75 (Comment No. 158) and the State Water Board's Recycled Water Policy.
Comment No. 414 from Ocean Mist and RC Farms. Letter No. 15, p.8. Implementation (Nitrate Hazard Index)	Fourth, other key factors affecting nitrate movement have been ignored in the development of this approach. The variable slope of the irrigated lands in some areas of the Central Coast which is a critical factor influencing water and sediment run-off is not mentioned. The total amount of irrigation water used during the entire growing season is another critical factor influencing nitrate movement that is omitted.	Staff agrees that slope is a critical factor in determining and increasing the amount of irrigation and stormwater runoff and sediment discharge. However, slope is a factor that would decrease the amount of movement of irrigation and stormwater to groundwater and therefore of nitrate discharge to groundwater. Therefore slope should not be considered as a factor to determine the risk of ag land in contaminating groundwater. Furthermore, staff has purposely omitted including local condition factors when determining the risk for groundwater contamination,

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		to allow for the local assessment of those factors in lowering the risk of the farmed unit. Staff also agrees that the amount of irrigation water applied and infiltrating into the ground has the potential for leaching nitrate below the root zone. However, staff purposely omitted the inclusion of the amount of irrigation water applied to the farm land because staff does not intend to regulate the amount of water applied with irrigation and does not want any misinterpretations to be made as what is the intention of the requirement.
Comment No. 416 from Ocean Mist and RC Farms. Letter No. 15, p.10. Implementation (Timelines, Tile drains, Inconsistencies)	The draft waiver also requires that within four years, Tier 3 dischargers must demonstrate that they are not causing or contributing to exceedances of water quality standards for nutrients and salts in surface waters of the state or of the United States. This could be read as inconsistent with Table 5 (page 38) which in relevant part clarifies that the farmer must "demonstrate that discharge (not including subsurface drainage to tile drains) is not causing or contributing to exceedances of nutrient water quality standards in the waters of the state."	The Draft Order has been revised to include conditions and an MRP with time schedules to comply with the Order. The Order identifies milestones for measuring progress toward compliance with water quality standards.
Comment No. 247 from Ocean Mist and RC Farms. Letter No. 15, p.5. Monitoring/Reporting	Sediment control is also of importance mostly to address pesticide residue discharges (particularly pyrethroids), however, this draft waiver is overly focused on the O-P pesticides, chlorpyrifos and diazinon. The staff draft waiver's efforts to discourage the use of these two O-P pesticides will automatically shift usage to other chemistries which may likely direct water quality toxicity impacts in sediments. These simplified regulatory approaches often have these types of unintended consequences.	The Draft Order focuses on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If new information demonstrates other specific sources of toxicity, monitoring requirements will be revised. At this point the Draft Order uses discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues such as additivity and synergism. To increase staffs ability to detect problems associated with pyrethroid pesticides, staff has replaced algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive

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		to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Program, including additional chemicals or toxicity tests as necessary.
Comment No. 248 from Ocean Mist and RC Farms. Letter No. 15, p.6. Monitoring/Reporting	Growers are compelled to select either individual farm monitoring or participate in a regional cooperative monitoring program. Our past experience with this Region's and other monitoring efforts throughout the state compels our support of an organized region-wide monitoring program. Only thereby do we get the benefit of a region-wide data set which allows the assessment of the actual watercourses as well as allowing the tracking back to identify the source of any problems. A scatter data set taken and input by individual farmers in accordance with inconsistent monitoring protocols will not assess the watercourse, will not be part of a disciplined monitoring database, and will not be scientifically useful. This concern also relates to the unreasonable requirement that all Tier 3 farms would be required to do on-farm monitoring.	Growers must select *individual surface receiving* water monitoring or *cooperative surface receiving* water monitoring. Only Tier 3 dischargers are required to conduct *individual farm waste discharge* monitoring. Staff agrees that a cooperative monitoring approach for surface receiving water is a more economical and, in most cases, effective means for growers to complete their requirements for surface receiving water monitoring. The Monitoring and Reporting Program reflects the fact that if growers select to do their own surface receiving water monitoring, they must address all of the basic components of the cooperative surface receiving water monitoring program. Staff finds it reasonable for Tier 3 dischargers, which represent highest risk activities for water quality, to show accountability for improvements and effectiveness of waste discharge control through individual farm waste discharge monitoring.
Comment No. 249 from Ocean Mist and RC Farms. Letter No. 15, p.7. Monitoring/Reporting	Paragraphs 48 and 96 require Tier 3 farms to engage individual discharge monitoring. This is not only a severe and impacting requirement – without prior precedence, it is intentionally slipped in this paragraph at the end of Part D, which predominantly deals with groundwater. The cooperative monitoring program will be more than sufficient to identify where problems exist and inform as to the source of problems. Therefore, it is unnecessary to selectively impose this extreme and burdensome obligation on the region's most significant farms.	The Monitoring and Reporting Program has been clarified by reorganizing and by creating separate versions, one for each Tier. It is not staff's intention to "slip a paragraph in" and staff has spelled individual discharge requirements out clearly in a separate section (see Part III of the revised Tier 3 MRP as an example) of the Monitoring and Reporting Program. Staff finds it reasonable for Tier 3 dischargers, which represent highest risk activities for water quality, to show accountability for improvements and effectiveness of waste discharge control through individual farm waste discharge monitoring.
Comment No. 250 from Ocean Mist	In regards to monitoring, and as stated above, we	The intent here is that the majority of the discharge leaving a farm

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and RC Farms. Letter No. 15, p.7. Monitoring/Reporting	embrace Regional monitoring, but have concerns as to requiring Tier 3 farmers to monitor at least 80 percent of their farm discharges twice during the irrigation season and once during the storm water season is required by the MRP. Also, tail water ponds would have to be monitored four times per year, which is excessive. (MRP, P II A 6) The reference to 80 percent of discharge makes no sense. It should be changed to require only "monitor a representative sample of drainage."	at a given sampling event be characterized by the sample or samples taken. Language has been clarified in the Monitoring and Reporting Program. Tail water pond sampling is relatively inexpensive (with nitrate being the only required laboratory measurement) and the sampling frequency is consistent with sampling frequency requirements for other individual discharge monitoring for nitrate. Based on the submitted information, the Executive Officer may reduce the monitoring frequency.
Comment No. 252 from Ocean Mist and RC Farms. Letter No. 15, p.8. Monitoring/Reporting	As to the monitoring and reporting provisions, we have reservations as to requiring Tier 3 (most all of the Region's significant operations) farms to also impose individual monitoring of nutrients and to impose a nitrate standard of 1 mg/l which is tenfold less than the national drinking water standard.	Staff finds it reasonable and warranted to require one to three hundred operations posting the greatest risk to water quality, potentially or actually, discharging the greatest amount of nitrates to surface waters (Tier 3 dischargers), to measure the amount of nitrate leaving their operations in waste discharges that runoff the property. Nitrate is potentially the most serious and widespread of water quality problems on the Central coast. Individual discharge monitoring is a reasonable way to evaluate the impact of operations that are highest risk of causing a problem. The Basin Plan numeric objectives for nitrate are 10 mg/L-N for protection of drinking water and 30 mg/L-N for protection of some agricultural uses. 1 mg/L is a guideline value for protection of aquatic life that can be used in combination with other supporting evidence as an instream indication of eutrophication. As such, it can only be interpreted in receiving water with supporting evidence of impairment (such as low dissolved oxygen, excessive algae growth, etc.). It supports the narrative objective that "Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses".
Comment No. 253 from Ocean Mist and RC Farms. Letter No. 15, p.13. Monitoring/Reporting	The reviewer describes the general content of the agricultural alternative's monitoring components.	Comments are noted.

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Comment No. 415 from Ocean Mist and RC Farms. Letter No. 15, p.10. Nutrient Management (Nitrate Hazard Index)	Commencing in Draft Order paragraph 80 there are more than six pages of complex and severely imposing sets of regulatory obligations dealing with nitrate restrictions. These regulations require calculation of nitrate risk by crop, by irrigation system and water nitrates based on a university paper. Among the duties imposed (Draft Order paragraph 88) are nitrate uptake, nitrate needs of the crop, nitrate in the water and nitrate in the soil – all to calculate a supposed nitrate risk. Paragraph 88h also requires the monitoring of nitrate in tile drains, and Draft Order paragraph 90 goes completely off the chart by requiring that in three years, farmers would be restricted in fertilization of their crop by imposition of "nitrogen balance" limits, which in annual crops would be 100 percent of the calculated crop needs, and in perennial crops 120 percent. (See also, prior discussion as to tile drains.) A. The Nitrate Hazard Index is referenced as being a UC Riverside document, however, we do not seem to find it as a product of UCR. Further, if it is a University document it would be rare that it would be designed for or intended to be used for a regulatory purpose as UC materials are more often guidance documents that are intended to be used in concert with other “field” information. In this case, that would likely be soil conditions, compaction, depth, slope, etc. Therefore, turning this paper to a prescriptive enforceable regulation seems improper. Moreover, the University paper relies on three factors: crop, irrigation and soil information. This draft totally eliminated any reference to soil types, structure and instead inserted groundwater nitrate as a factor. This insertion is totally a product of the Regional Board staff and not a product of the University paper. Both the omission and the addition totally depart from	Regarding fertilizer use, see response to Letter 31 (Comment No. 385). Regarding the Nitrate Hazard Index, see response to Letters 79 (Comment No. 439).

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	this University paper. B. The attempt to rely on this recently embraced nitrogen risk university paper to control the amount of fertilizer use is completely beyond the Board's authority. The simple formula advanced is an attempt to limit a farmer's management of his crops' nutrition is completely void of any consideration of soil types, soil compaction, or amount of organic material. Also, there is no consideration of the crop nutritional needs, or the differences as a result of microclimate or demand difference due to the growing season (there are large differences in crop demands from summer to winter).	
Comment No. 379 from Ocean Mist and RC Farms. Letter No. 15, p.7. Tiers	The staff draft is confusing and inconsistent as in some places increased regulation is imposed, here a farm is within "1000 feet of a listed waterway" and at other points does so when it is "adjacent to" an impaired waterway. Draft Order paragraph 92, 93)	Different proximities to a waterbody are used to appropriately convey different risks or impacts to waterbodies from different farms or operations at farms. In an example of the first case referred to in the comment above, "1000 feet of a listed waterway," the Draft Ag Order describes criterion 2.a. for Tier 2 as, "Operation is located within 1000 feet of a surface waterbody listed for toxicity, pesticides, nutrients, turbidity or sediment on the 2010 List of Impaired Waterbodies." If an operation meets this criterion, the operation is in Tier 2. Staff finds this "proximity" to listed waterbodies, in conjunction with the other criteria for Tier 2, to be appropriate for determining discharges with moderate level of waste or that pose a moderate threat to water quality. In an example of the second case, "adjacent to" an impaired waterbody, the Draft Order describes criterion 2.c. for Tier 3 as, "Operation is adjacent to or contains a waterbody listed for toxicity or pesticides on the 2010 List of Impaired Waterbodies; *and* Discharger applies chlorpyrifos or diazinon. Staff finds this "proximity" to listed waterbodies, in conjunction with the other criteria for Tier 3, to be appropriate for determining discharges with the highest level of waste or that pose the highest threat to water quality. There are other criteria in the Draft Order that use

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		each of these different proximities to appropriately define risk or impacts to waterbodies from farms or operations appropriate to the context or situation. See added discussion regarding Tiers in the Staff Report, Section 3C: "Justification for Staff Recommendations and Options Considered."
Comment No. 64 from Pesticide Watch. Letter No. 16, p.1. Economics 20-2	Through our work with residents in the Central Coast region, and from the workshops held at San Luis Obispo on May 12, 2010 and at Watsonville on July 8, 2010, it has become clear that water quality in the Central Coast is an environmental justice issue, and that water contamination severely ruins drinking water and human health of communities, especially poorer communities, farm-worker camps, etc. While the farm workers and local residents suffer significant economic and health impacts from the contamination, the agricultural polluters have been exempt from responsibility.	Appendix F of the staff report addresses the issue of environmental justice as well as the human health costs of nitrate contaminated drinking water sources.
Comment No. 660 from Pesticide Watch. Letter No. 16, p.3. General (Feb 1, 2010 Preliminary Draft)	The 2011 Draft Order is an improvement on the 2004 Conditional Waiver which did not prioritize water quality requirements, and did not contain any compliance or verification monitoring provisions. However, PWEF is very disappointed that in spite of the verbal commitment to regulate agricultural discharges due to immense evidence of human health and drinking water concerns, the 2011 Draft Order is significantly weaker than the Draft Recommendations released by the Regional Board Staff on February 1, 2010.	Staff revised the February 1, 2010 Draft Order to the November 19, 2010 Draft Order in response to thousands of comments from multiple stakeholders and Board members that spoke to including water quality protection, and flexibility, accountability and reasonableness. Staff further edited the November 19, 2010 Draft to recommend the March 17, 2011 Draft Order in response to hundreds of similar comments. See the comparison of alternatives and options considered in Staff Report Section 4.A. and Appendix D. Staff specifically edited the Tiering criteria to improve groundwater quality protection and the Monitoring and Reporting Program to address a broader range of pesticides. See edits highlighted in grey in the Order. .
Comment No. 175 from Pesticide	Problems with removing regulation on Tile Drains: In the	Conditions and time schedules specifically related to irrigation

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Watch. Letter No. 16, p.5. Irrigation (Tile Drains) 20-3, 47-3, 57-1, 66-3, 85-7, 87-4, 105-5	Draft Agricultural Order, the Staff Report states that they have, "clarified the intent to address irrigation runoff in the short term with immediate conditions vs. tiledrains in the long term." (Pg 32, Staff Report). However, PWEF feels that removing regulation on tile drains is a significant setback to address irrigation runoff in the short-term and the long-term. It will worsen groundwater contamination and will cause harm to residents. For instance, the Blanco drain in the contamination "hotspot" Salinas Valley often registers nitrates at over 200 mg/L, or five times the drinking water standard! Regardless, the 2011 Draft Order would remove regulation of tile drains until the long-term. This change is unacceptable; tile drains should be regulated in the short-term. We strongly urge that tile drains be regulated immediately.	runoff/tailwater in the Draft Agricultural Order are intended to address surface irrigation runoff and not tile drains. Understanding the complexity of the tile drains network, in the short term, the Order does not does not directly address subsurface drainage to tile drains. The Order addresses the current impacts to tile drains through provisions for better nutrient application and irrigation efficiencies (BMPs) and monitoring. Staff expects that operators implement nutrient best management practices to minimize fertilizer (e.g., minimize leaching) and nitrate loading to groundwater to meet nitrate applications targets and loading reductions. However, dischargers must conduct receiving water quality monitoring in compliance with the draft monitoring program that includes evaluating water quality impacts resulting from relevant tile-drain discharges. Additionally, Tier 3 (highest risk dischargers) must complete and report an annual estimation of nitrogen loading to groundwater and surface water, including subsurface drainage, which includes tile drains. Staff has analyzed the tile drains loading issues and found there would be many difficulties and constrains imposed to growers if tile drains are regulated in the short term, which could provoke unintended consequences. The complexities in regulating the tile drains are based on the nature of the water being discharged because tile drains act to intercept shallow groundwater that is discharging to the surface. Tile drains have been installed in previous decades to reclaim land for agricultural production and to remove water from the crop root zone profile. A portion of the water that drains from tile drains comes from perched water tables and groundwater shallow aquifers, which might or might not contain nitrates in amounts that exceed the water quality standards and salts. Hence, any chemicals applied to the field that passes below the root zone mix with the surfacing groundwater in the tile drain, so the resulting mixture consists of both current and historic impacts.

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		Historic impacts will take time to flush through the groundwater flow path. Therefore, addressing tile drain discharge is very complicated because the historical impacts may have originated a significant distance from the point of discharge, and tile drains often discharge groundwater having naturally occurring high salt content.
Comment No. 254 from Pesticide Watch. Letter No. 16, p.1. Pesticides/Toxicity	PWEF agrees that Diazinon and Chlorpyrifos are dangerous pesticides with high toxicity. However, we disagree with Staff's approach to specify just these pesticides in the Tiering criteria to the exclusion of other pesticides such as methyl iodide which may be just as harmful. This approach also ignores the public health concept of synergism: that two or more pesticides working together may create combined effects and harm.	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become equally problematic they may be added to requirements for individual discharge monitoring. At this point we are using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase our ability to detect problems associated with pyrethroid pesticides, we have replace algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional chemicals or toxicity tests as necessary.
Comment No. 255 from Mesa Vineyard Management. Letter No. 17, p.1. Surface Water	A single listing of Impaired Waterways as relates to the Ag Waiver process is also needed. Growers should not have to survey multiple listings and figure out which impairments matter and which do not.	See response to Letter 10 (Comment 236).
Comment No. 381 from Rio Farms. Letter No. 18, p.1. General (1000 feet from impaired	Another issue I question in Staff's proposal is the use of the phrase "1000 feet to an impaired water body." A detailed explanation of this definition is required. Are we referring to a riparian habitat, or to the actual running	The explanation of "1000 feet to an impaired water body" was inadvertently left out of November 19, 2011 Draft Staff Report. See edits to Staff Report, Section 3.C. See edits to Draft Order, Condition 17 regarding requests to transfer to a lower tier for

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waterbody) 53-1	water of that site? None of our land slopes in a way to drain into the Salinas River, although we farm along a relatively long stretch of it. Why does staff assume that all farmland adjacent to this or any river is automatically going to drain into it "1000 foot setback…" is not based on threat to water quality and in many cases the private property owners have levees or have graded operations away from the Salinas River.	operations adjacent to a waterbody that do not slope towards or discharge directly to the waterbody. Also, see response to Letter 15 (Comment No. 8).
Comment No. 152 from Rio Farms. Letter No. 18, p.1. Groundwater, Surface Water 79-17, 102-1	Under the Staff's General Groundwater Protection Requirements, it is mentioned that if we choose to use containment structures such as retention ponds that they must be lined to avoid percolation. Three points here: 1) That's mainly what they were built for, to keep any possible tailwater on our property and not allow it to escape to waters of the State. 2) We catch most of our storm water within these containments. Along with that water comes sediment. How does staff propose we do our annual maintenance of removing the sediment from these ponds We normally use a wide track bulldozer to push the sediment out and take it back to the fields. We can't do that with an expensive liner in there. 3) Staff is assuming a couple of things here, one that the water entering these ponds is carrying excess nitrates with it, also that the water in these ponds will percolate enough to become a problem. I submit that there is very little science utilized in the assumption that all percolated water will eventually be received into the aquifers carrying the same quality factor as when it was in the pond.	The removal of sediment retained within ponds utilized to prevent or treat tailwater runoff should be conducted in a manner that does not result in sediment loading to surface waters. Synthetic liners are not specifically required given soil/clay liners may be employed to prevent significant percolation. If synthetic liners are employed and adequately designed/installed a soil layer can be maintained within the pond to allow use of heavy equipment without compromising the liner. Otherwise, other means of sediment removal will have to be employed to protect the liner. The assumption pointed out within item three of the comment is valid given high nitrate (as well as pesticide) concentrations are well documented within creeks and drainages receiving tailwater runoff from agricultural areas (i.e. cooperative monitoring program and CCAMP data). It is agreed that some attenuation of contaminants contained with percolating water will occur within the vadose zone prior to reaching the aquifer. However, as supported by existing known legacy nitrate concentrations in groundwater within agricultural areas and studies showing chemical fertilizer-nitrogen is less likely to attenuate than organic sources of nitrate such as from municipal wastewater or manure, nitrate loading to groundwater is significant and ongoing from agricultural practices. The Draft Order states that Dischargers who choose to utilize

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		containment structures (such as retention ponds or reservoirs) to achieve treatment or control of the discharge of wastes, must construct and maintain such containment structures to avoid percolation of waste to groundwater that causes or contributes to exceedances of water quality standards, and to avoid surface water overflows that have the potential to impair water quality. The reference to "lined ponds" falls under the monitoring requirement which states that, Tier 3 dischargers must "monitor individual discharges, including…and other surface water containment features (unless constructed with impermeable liner)….
Comment No. 153 from Rio Farms. Letter No. 19, p.2. Groundwater	It is very difficult and costly to document changes in groundwater quality based on the improved methods we have been using over recent years. We feel we are doing the right thing for water quality improvement, but it will take many years to realize the positive impacts of our efforts. According to Dr. Thomas Harter, it may have taken upwards of 50 years to attain current nitrate levels in our groundwater and it will most likely take that long to clean it up. That, of course, is based on many factors, such as depth to groundwater and soil types above those aquifers.	We concur there are costs associated with documenting changes in water quality and that it may be decades until we see improving trends as a result of more efficient nutrient and irrigation management practices. However, we do not think documenting these changes is very difficult. The proposed Order, like the 2004 Ag Order requires dischargers develop and implement management practices that will reduce discharges that impact groundwater quality in the coming decades. Short term monitoring is required to assist in evaluating whether management practices are reducing the amount of nitrate and other wastes that leach to groundwater, whereas long-term groundwater monitoring is required to document water quality improvement over time. If the monitoring does not show improving trends in the various monitored parameters, then management practices would need to be adjusted.
Comment No. 177 from Rio Farms. Letter No. 19, p.1. Nutrient Management	Our operation totals 6000 acres in the King City area of the Salinas Valley and we have been using the nitrate quick test for over 15 years…advocate for the use of the quick nitrate testing program for many years and am convinced that it can and will accomplish a minimum of two important goals: (1) eliminating wasted applications of nitrate, (which will improve water quality) and (2) saving the grower input costs.	Staff believes that the Nitrate quick test strip is a good screening tool to help growers make informed decisions, especially when combined with other nutrient management elements. The Draft Order does allow for dischargers to utilize EPA approved "quick test strip" methods, if such methods allow for the comparison against relevant water quality standards and the discharger follows appropriate sampling methodology and quality assurance protocols to ensure accuracy of the test. However the use of the

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		quick test strips on its own will not guarantee that the nitrogen loading to groundwater is being reduced if the grower does not implement a complete nutrient management plan that compares crop nitrogen needs with total nitrogen inputs.
Comment No. 256 from San Jerardo Cooperative, Inc. Letter No. 20, p.3. Pesticides/Toxicity	We agree that Diazinon and Chloropyrifos are dangerous pesticides with high toxicity. However, we disagree with Staffs approach to specify just these pesticides in the Tiering criteria to the exclusion of other pesticides which may be just as harmful. This approach also ignores the public health concept of synergism: that two or more pesticides working together may create combined effects and harm that has not even been properly understood or documented. Toxicity does not arise merely from the use of these two pesticides, and we fear that many dischargers will escape Tier 3 high-risk monitoring merely by shifting to other toxic pesticides. Hence. we feel strongly that Staff should not specify just these pesticides in the Tiering criteria, but rather focus on all pesticides that will increase toxicity and damage water quality.	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become equally problematic they may be added to requirements for individual discharge monitoring. At this point staff is using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase staff's ability to detect problems associated with pyrethroid pesticides, staff has replaced algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional chemicals or toxicity tests as necessary.
Comment No. 66 from Sue and Karl Luft. Letter No. 21, p.4. Economics	Most growers participate in the Cooperative Monitoring Program through Central Coast Water Quality Preservation, Inc. (Preservation, Inc.). As long as Preservation, Inc. can meet the deadlines and requirements, this approach makes sense. However, we do not know whether Preservation, Inc. can meet the deadlines and the new requirements or whether the costs to the growers will increase.	Appendix F, Section 2.2.4, p. 32 discusses changes to the Cooperative Monitoring Program (receiving water monitoring), which is currently conducted by Preservation Inc. Also see response to Letter 23 (Comment No.261)
Comment No. 68 from Sue and Karl Luft. Letter No. 21, p.5.	In addition to the costs of meeting all of the proposed requirements of the Draft Ag Order, growers will be required to pay some unreasonable fees, particularly for	The proposed Order does not alter the fee schedule of the 2004 Ag Order, which is set forth in State Water Board regulations at CCR, Title 23, Div. 3, Chapter 9, Article 1, Section 2200.6. The

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Economics	the higher tiers.	Draft Order does not propose additional fees beyond those established by the current fee schedule.
Comment No. 69 from Sue and Karl Luft. Letter No. 21, p.5. Economics	Farmers generally work long hours for a relatively low wage. The costs of the proposed Draft Ag Order may be prohibitive for many operations. A full cost/benefit analysis of the Ag Order is needed to fully understand the impacts on our local growers.	See response to Letter 40 (Comment No. 648).
Comment No. 67 from Sue and Karl Luft. Letter No. 21, p.5. Economics	The cost of obtaining well level data can be quite high for a well owner whose well is not equipped with a permanent sounding device. The grower would have to purchase or rent a sounding device. They would have to ensure that the well has no obstructions that prevent the use of a sounding device. Such obstructions are common and may make determining the well depth impossible without pulling the well pump, which is very costly.	Comment noted. Depth to groundwater measurments are required if well construction provides for groundwater depth measurement.
Comment No. 661 from Sue and Karl Luft. Letter No. 21, p.2. General (Education) 44-3	Incentives and education go farther than regulation. The Water Board should revise the focus of the proposed,Ag Order to instead emphasize education and provide incentives for water quality improvements.	Staff considers education valuable for the purpose of assisting growers with appropriate implementation that will reduce their pollution loading and improve water quality. However, Staff does not consider education an important action to track or enforce and has removed the education requirements from the revised Draft Order. Also, see response to Letter 2 (Comment No. 658).
Comment No. 649 from Sue and Karl Luft. Letter No. 21, p.3. Groundwater (Monitoring)	a) The requirements that all abandoned groundwater wells be destroyed and that backflow prevention devices be installed should be applied throughout the region.	Comment noted.
Comment No. 650 from Sue and Karl Luft. Letter No. 21, p.4.	b) The groundwater sampling requirements are the most costly part of the proposed Draft Ag Order for Tier 1 growers. Water Board staff did not clearly define their	b) The groundwater sampling will provide information to characterize the magnitude and extent of pollution caused from agricultural discharges to groundwater in the Central Coast

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Groundwater (Monitoring)	objectives or identify how they can manage such an enormous amount of data.	Region. The objectives of the groundwater sampling for Tier 1 growers are described in more detail in response to Letter 77 (Comment No.122). Cost to Tier 1 growers every five years is about $790, which is reasonable with respect to the benefits of obtaining information about the quality of groundwater. As for managing the data, the Order requires that the data is uploaded directly from the laboratory to the State's GeoTracker database.
Comment No. 651 from Sue and Karl Luft. Letter No. 21, p.4. Groundwater (Monitoring)	c) One question that must be asked is whether the concern being addressed is drinking water quality or of the potential contamination of groundwater aquifers by agricultural use of nitrogen-based fertilizers. The first issue is the purview of the California Department of Public Health and County Environmental Health Departments. Data on groundwater quality from drinking water wells has been submitted to local Environmental Health Departments for all new residences for the past several-decades, and should be utilized. If the concern is potential contamination of groundwater aquifers, the Water Board should evaluate the data which has already been obtained under the current Ag Waiver and develop a plan to address those impacted locations.	c) Protection of the beneficial use of groundwater is the purview of the Water Board; drinking water standards are one measure of meeting beneficial use. Central Coast Water Board staff is working with Counties and local agencies to develop or enhance, and make consistent regional groundwater monitoring programs in our region so that trends in water quality can be monitored. This includes use of data the commenter mentions from public water systems (generally greater than five use connections). Staff used this readily available data extensively in developing this Order; however, significant data gaps remain as to distribution and trends in water quality. Counties do require individual domestic well testing for new building permits, but do not keep easily acquired records of the groundwater quality data, required analysis has been inconsistent, and the data does not include general chemistry information (secondary drinking water standards). Groundwater well sampling was not required under the current Ag Waiver, so no quality data is available from the current program.
Comment No. 652 from Sue and Karl Luft. Letter No. 21, p.4. Groundwater (Monitoring)	d) The entire groundwater testing regime should be coordinated with the respective County Environmental Health Departments and local groundwater monitoring programs. Data is already gathered through these programs and should be utilized. After this data is incorporated into a database and mapped, the Water Board along with the other involved agencies can	d) See above response and response to Letter 77 (Comment No. 122).

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	evaluate the data gaps. Then, groundwater could be sampled from representative locations, whether those wells sites are associated with irrigated agriculture or with other land uses. Until that point, it makes little sense to have growers obtain groundwater data that may not be of use.	
Comment No. 653 from Sue and Karl Luft. Letter No. 21, p.4. Groundwater (Monitoring)	e) Although the groundwater constituents that are to be sampled are of interest to growers, several of the constituents do not present a water quality concern. The groundwater testing should be limited to nitrate, chloride, sodium and electrical conductivity.	e) Staff proposed a suite of parameters that will inform characterization of the magnitude and severity of groundwater quality throughout the region.
Comment No. 654 from Sue and Karl Luft. Letter No. 21, p.5. Groundwater (Supervised by Professional) 15-8, 30-2, 67-2, 106-1	f) If groundwater sampling is to be performed, the well owner should be allowed to obtain the well sample. A professional engineer or professional geologist is not needed or appropriate to perform well sampling and is an unnecessary expense to the well owner. Any conscientious person can obtain a well sample with the minimal instructions provided by the laboratory that provides the sampling containers. By signing the chain of custody documentation, the sampler certifies that they obtained the sample and transferred custody	f) In order to maintain a level of quality and consistency, staff requires that an independent 3rd party, having appropriate experience, collects well samples. However, staff changed the requirement such that persons "supervised by" a professional can collect the sample, which is standard protocol for Water Board directed environmental work.
Comment No. 655 from Sue and Karl Luft. Letter No. 21, p.5. Groundwater (Monitoring)	g) The cost of obtaining well level data can be quite high for a well owner whose well is not equipped with a permanent sounding device.	g) See response to Letter 77 (Comment No. 122).
Comment No. 656 from Sue and Karl Luft. Letter No. 21, p.5. Groundwater (Monitoring)	h) The proposed annual groundwater report is one more item that should be part of a local groundwater monitoring program, not the responsibility of individual growers. Many farmers not do use or do not have internet access. The Water Board is assuming that	h) Given that growers discharge waste to land, each grower is responsible for monitoring and reporting. However, the Order provides the option that growers can collectively fulfill the requirements via joining into a collective monitoring and reporting program. Comment noted regarding lack of technical skills and

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	growers have certain technical skills that many do not have. We need to encourage folks to enter farming, not burden them with unnecessary requirements.	encouraging people to enter into farming. We encourage growers to use laboratories that upload results directly to GeoTracker to minimize need for computer use.
Comment No. 258 from Sue and Karl Luft. Letter No. 21, p.2. Monitoring/Reporting	Most growers participate in the Cooperative Monitoring Program through Central Coast Water Quality Preservation, Inc. (Preservation, Inc.). As long as Preservation, Inc. can meet the deadlines and requirements, this approach makes sense. However, we do not know whether Preservation, Inc. can meet the deadlines and the new requirements or whether the costs to the growers will increase.	Preservation Inc. has generally been a responsive and responsible organization in working with staff to meet deadlines to date. However, growers are not obligated to conduct cooperative monitoring through this particular organization and can seek a different entity to implement the cooperative program, or conduct receiving water monitoring on their own.
Comment No. 257 from Sue and Karl Luft. Letter No. 21, p.2. Surface Water	The Draft Ag Order contains two tables of 2010 Clean Water Act Section 303{d) lists of impaired waterbodies - one for temperature, turbidity or sediment and one for toxicity, pesticides. These lists appear to only be subsets of the 2010 303{d) list for the Central Coast Region. The Ag Order should clearly define the impaired waterbodies that are subject to the Ag Order. In order to utilize all of our resources most efficiently, it would be logical to prioritize the waterbodies with impairments due to the constituents of concern.	See response to Letter 10. (Comment 236).
Comment No. 259 from San Luis Obispo Farm Bureau. Letter No. 22, p.1. Monitoring/Reporting	On page 16 of the Monitoring section, F.1, a Water Quality Buffer Plan is required if the impairments are for temperature and turbidity. But on page 27 of the Order, 92, the impairments are for temperature, turbidity or sediment and is backed by Table 1, page 30. I assume it was an oversight in the Monitoring section and sediment should be included	This comment has been addressed in the Monitoring and Reporting Program. Sediment has been included in the monitoring section.
Comment No. 125 from Dragon Spring Farm. Letter No. 23, p.1. Groundwater (Monitoring)	a) Nonetheless, tier 1 status still requires growers to go to considerable expense to meet the requirements of the Order. With two wells on my property, I can estimate out of pocket expenses of $2,000 – 3,000 in the first year,	a) Please see response to Letter 21 (Comment No. 654) and Letter 77 (Comment No. 122). Note that you are required to sample only your main agricultural production well and you may coordinate with other growers to reduce the amount and cost of

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	based solely on groundwater sampling requirements proposed for the Order, using the figures presented in Appendix F. In addition, there are extensive paperwork requirements, requiring many hours of time not spent farming, to mention only some of the requirements for a group of non-polluters. b) The requirement for third party sampling of wells adds considerable cost, while much more cost effective methods to allow farmer sampling could be made available. c) There are six farms of similar size to mine within a one-mile radius, all of which use well water pumped from the same aquifer. Therefore, the total bill to this group of farmers will be approximately $10,000 to generate data for well water that will no doubt be identical from well to well. This considerable expense for duplicate data generated on a non-impacted waterbody will end up in a file cabinet, because no one will question the water quality in Santa Rosa Creek nor have the time to analyze the information, when staff should be concentrating on problem areas. Besides, information on the water quality of Santa Rosa Creek is a matter of public record. Several new wells have been drilled in recent years in our valley alone. The county Health Department has records of analyses of the water from these wells.	monitoring. b-c) Please see responses to Letter 21 (Comments No. 650 and 654) and Letter 77 (Comment No. 122).
Comment No. 260 from Dragon Spring Farm. Letter No. 23, p.2. Groundwater (Monitoring)	In addition, the monitoring data requirements found in the Order appear excessive. Requiring analyses for pH, calcium, magnesium and potassium, for instance, data and elements not even found on the lists of primary or secondary drinking water standards, appear to add cost	See response to Letter 77 (Comment No. 122).

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	without value. Perhaps staff would like to explain.	
Comment No. 261 from Dragon Spring Farm. Letter No. 23, p.2. Monitoring/Reporting	My evaluation of cost also assumes that Preservation, Inc. will continue to manage the information required for receiving water to minimize cost. The assumption aside, their cost to growers will no doubt rise because of additional requirements.	Some requirements for receiving water monitoring have been completely eliminated. For example, they will no longer conduct separate follow-up monitoring, which represented 25 percent of the past budget. They will be sampling for benthic invertebrates once, instead of five times. It is not at all certain that costs for receiving water monitoring will increase, and in fact they may decrease.
Comment No. 70 from Pacific Vineyard Company. Letter No. 24, p.1. Economics 12-1, 24-1, 114-1, 115-2	The draft Ag Order will negatively impact my ability to continue producing a marketable crop.	Comment noted.
Comment No. 14 from Valley Farm Management, Inc. Letter No. 25, p.2. Aquatic Habitat/Buffers	They require practices—setbacks, buffer strips, habitats, reduced pumping, modified nutrition programs or many of their other proposals—that have not been verified as beneficial to the water discharges in the Central Coast Region 3.	See response to Letter11 (Comment No. 10).
Comment No. 262 from Valley Farm Management, Inc. Letter No. 25, p.2. Monitoring/Reporting	The Ag working group has proposed an alternative Conditional Waiver that is more appropriate than the one proposed by Region 3 staff. It continues the overall monitoring required in the current Conditional Waiver	See response to Letter No. 11, page 1 (Comment No. 372).
Comment No. 126 from Santa Barbara County Farm Bureau. Letter No. 26, p.1. Groundwater (Monitoring)	In one section the term “Receiving Water Quality Monitoring” is used, which we believe is similar to the existing Cooperative Monitoring Program.In another section the term “Monitoring Requirements For all Dischargers” is used. If the latter term is used as part of monitoring groundwater, then Staff assumes all growers	Please see responses to Letter 21 (Comment No. 654) and Letter 77 (Comment No. 122).

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	contribute to groundwater impairment regardless of irrigation type and method. This is simply not the case and will create a huge amount of unnecessary reporting. A concerted effort is needed to understand the complexities of groundwater and any impairment that may exist in different areas throughout the Region. Additional research is needed to fully understand ongoing monitoring programs and the information they provide related to groundwater before a costly monitoring program is put into place.	
Comment No. 263 from Santa Barbara County Farm Bureau. Letter No. 26, p.1. Monitoring/Reporting	We are extremely concerned with the lack of clarity concerning the requirements of those tiers. Staff's current proposal regarding monitoring and reporting is confusing. In one section the term "Receiving Water Quality Monitoring" is used, which we believe is similar to the existing Cooperative Monitoring Program. In another section the term "Monitoring Requirements For all Dischargers" is used. If the latter term is used as part of monitoring groundwater, then Staff assumes all growers contribute to groundwater impairment regardless of irrigation type and method. This is simply not the case and will create a huge amount of unnecessary reporting.	See response to Letter 15 (Comment No. 249).
Comment No. 265 from Santa Barbara County Farm Bureau. Letter No. 26, p.2. Monitoring/Reporting	Stormwater sampling is currently done monthly and includes two stormwater events. Staff's proposal calls for 12 monthly samples plus 2 storm water events. This will increase the cost of monitoring substantially without adding any meaningful new data.	Stormwater monitoring requirements have been changed so that two of the monthly sampling events are required during storms. This will maintain the current sample count.
Comment No. 266 from Santa Barbara County Farm Bureau. Letter No. 26, p.2. Monitoring/Reporting	We understand the concept of individual reported on farm monitoring, but feel there are alternatives that should be explored with growers within the region.	Comment noted.

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Comment No. 267 from Santa Barbara County Farm Bureau. Letter No. 26, p.2. Monitoring/Reporting	The Agricultural Alternative calls for the use of best management practices to improve water quality in highly impaired areas. We believe it would be extremely helpful if Staff and the growers in those areas worked together on developing the accountability of those practices as an alternative to individual on farm monitoring. There are currently no other regions within the State that require individual reported on farm monitoring. It is not cost effective and does nothing to improve water quality.	The Draft Order currently requires reporting on the effectiveness of best management practices and the related water quality improvements in the annual compliance document for Tier 2 and Tier 3 dischargers. This requirement allows flexibility for growers to evaluate and report on effectiveness of practices and related water quality improvements as they think best. Staff believes individual monitoring for highest risk operations is important to gain information to evaluate the effectiveness of compliance with the conditions of the Order. This additional requirement applies to only about one to three hundred of the approximate 3000 operations in the region. Staff has not observed significant improvement in water quality in spite of growers reporting that they are implementing practices. In order to determine effectiveness of compliance with the Draft Order, it is necessary to understand where sources of polluted discharge are originating and if and how management practices are improving the conditions to be able to focus management practices on addressing the actual problems.
Comment No. 269 from Santa Barbara County Farm Bureau. Letter No. 26, p.2. Monitoring/Reporting	Metals are also not used in agricultural operations and should be removed from any testing or monitoring requirements. Phenols should also be removed from the list of parameters and tests as there is no evidence that they cause toxicity or other impairments as a result of agricultural runoff.	Metals and phenols are constituents of commonly applied agricultural chemicals. If monitoring shows they are not causing water quality problems they will be eliminated from future monitoring requirements.
Comment No. 268 from Santa Barbara County Farm Bureau. Letter No. 26, p.2. Monitoring/Reporting	The Staff proposal also calls for quarterly and 6 storm water tests a year at CMP sites for fecal coliform and E. coli. This testing is not necessary due to ample evidence that either class of pathogen is present in irrigated agricultural discharges.	Staff has eliminated pathogen indicator monitoring from the draft Monitoring and Reporting Program.
Comment No. 264 from Santa Barbara County Farm Bureau. Letter No. 26, p.1.	Focus on two constituents of concern, Chlorpyrifos and Diazinon in the most impaired areas of the Region.	Individual monitoring of by Tier 3 dischargers is intended to increase focus on these two chemicals. However, because dischargers may switch to other chemicals that also cause toxicity, it is important to maintain toxicity monitoring for both Tier

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Pesticides/Toxicity		3 dischargers and in receiving water.
Comment No. 71 from Faith Vineyard. Letter No. 29, p.1. Economics	Even though our vineyard should qualify as Tier 1 the small size of our total operation makes it hard to justify the additional costs of testing and reporting requirements utilizing a cost/benefit analysis. Even if the well tests indicated a problem with the sample, there is no way of determining the source of the contamination due to our small surface size and the water movement throughout the underlying aquifer. The additional costs for complying with the Proposed Staff Ag Order will certainly not help with our vineyard's economic sustainability and not do anything meaningful to help preserve or improve the local water quality.	Comment noted.
Comment No. 127 from Faith Vineyard. Letter No. 29, p.1. Groundwater (Monitoring)	In our case the requirement to monitor and test our well water would not provide any meaningful information on the source of possible contaminants. Our well is adjacent to our property line, and the adjoining properties are not covered by the Proposed Staff Order since they are not using irrigation for crops. The order does not include horse or other livestock operations as a possible source of groundwater contamination and the fact the water within aquifers travels laterally. In our case the property immediately adjacent to our well is a commercial horse boarding operation that disposes of the horse waste onsite. There are also several other high density horse operations nearby that do little to keep their corrals clean of waste. Even if the well tests indicated a problem with the sample, there is no way of determining the source of the contamination due to our small surface size and the water movement throughout the underlying aquifer.	
Comment No. 72 from San Luis Obispo Farm Bureau. Letter No. 30,	Some references are actually over two decades old…outdated information on page 51 (Cost	The staff report cites these figures to simply show that replacing water contaminated by nitrates is costly. See comment letter No.

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p.1. Economics	Considerations) referencing nitrate pollution from a 1990 report is totally misleading today.	104 (Comment No. 117) for more recent information on the cost of bottled water.
Comment No. 73 from San Luis Obispo Farm Bureau. Letter No. 30, p.2. Economics	Further using a 1999 cost analysis, found on page 52 of Cost Considerations, for the cost of ion exchange is over 10 years old. This is thoroughly irrelevant to today's costs. The use of such outdated sources to develop the conclusions is not appropriate and must be corrected.	The staff report cites these figures to simply show that treating water contaminated by nitrates is costly. The costs cited make that point, as would costs estimates from more recent published sources.
Comment No. 74 from San Luis Obispo Farm Bureau. Letter No. 30, p.3. Economics	To compound all of the above, with the admission in the Cost Considerations, Appendix F, page 37 that, "With the current staffing and budget, staff cannot review information from, nor inspect, most of the operations in the region" it appears that the MRP, the QAPP, the well monitoring and other requirements in the Draft Order are even beyond handling capability the Regional Board Staff.	See response Letter 40 (Comment No. 77).
Comment No. 384 from San Luis Obispo Farm Bureau. Letter No. 30, p.1. General (Draft Agricultural Order) 44-2	There has been significant changes and expansion in the Draft Order from the current regulations and we believe there has been a positive step with the Staff's introduction of the tiered approach. That being said, we have a number of concerns regarding the unwarranted tone of the Draft Order and the conveyed criticism and distrust of agriculture in the draft. Agriculture worked collaboratively with the Regional Staff to create the current waiver. As farmers, we are committed to producing safe food and fiber, utilizing the best possible management practices while at the same time improving our area's water quality. We ask that the Draft Order be reviewed and amended to create a more effective and practical Order that is achievable for both the farmer and water quality regulators.	Comment noted. Staff has either made changes to the Draft Agricultural Order or the Staff Report to address similar comments. The individual edits are numerous so not itemized specifically here. See revisions to the Draft Agricultural Order.
Comment No. 130 from San Luis	Individual grower well sampling is a serious concern for	The MRP has been modified to allow for “other qualified

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Obispo Farm Bureau. Letter No. 30, p.2. Groundwater (Supervised by Professional)	our growers. Samples must be collected by a State registered entity, a chain-of-custody followed and then analyzed by a State certified laboratory for all domestic and at least one farm well on every ag operation. With 3,000 operations and many operations having multiple wells, it appears that there are insufficient State registered engineers or geologists or State certified labs to fulfill the required sampling and analysis within the timeframe the draft requires. This problem must be further reviewed with agricultural producers included in the discussion.	professionals" to conduct this sampling. Also, please see response to Letter 21 (Comment No. 654). As of March 2010 there were 617 ELAP/NELAP Accredited Laboratories operating in California.
Comment No. 270 from San Luis Obispo Farm Bureau. Letter No. 30, p.2. Monitoring/Reporting	There is no assurance that there will be an entity, such as Preservation Inc, that can meet the required deadlines or the newly expanded requirements and costs which will have to be assumed with the approval of the Draft Order. Without some assurance that a Cooperative Monitoring Program (CMP) will cover "all dischargers" the projects/plans and costs will fall on backs of the farmers. These requirements are not doable, especially by the small farmer. As an example: Relating to Receiving Water Quality Monitoring, beginning on page 9 the Monitoring Draft states that "all dischargers" must submit a Monitoring and Reporting Program (MRP) Plan. Without a Cooperative Monitoring Program or a comparable program this means that every farmer must then complete the 8 technical points of the MRP Plan and submit it within 3 months of adoption of the Order (page 9). Even with a CMP can "an approved third party" meet this requirement in this short timeframe This is an example of undefined, unachievable requirements. Many farmers have no idea how to complete such a Plan.	Staff agrees that the Cooperative Monitoring Program is an important tool for growers to implement receiving water requirements and support the industry in maintaining this capacity (or another like it). The agricultural community has demonstrated this is an achievable requirement through the past five years by creating and maintaining the existing cooperative monitoring program. See response to Letter 15 (Comment No. 248).
Comment No. 271 from San Luis Obispo Farm Bureau. Letter No. 30,	Relating to the Quality Assurance Project Plan (QAPP), on page 9 and 10, all dischargers, within 3 months of	The existing and approved QAPP for the current Cooperative Monitoring Program (CMP) can be updated to address new

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p.2. Monitoring/Reporting	adoption of the Order, must address the 4 points (Project Management, Data Generation and Acquisition, Assessment and Oversight and Data Validation and Usability) in the QAPP and submit it to the Regional Board Executive Officer. The QAPP is very detailed and without a CMP would not be achievable for every farmer to complete within the time limits. Even an approved third party would be seriously tested to complete the QAPP within the 3 month limit.	program requirements with relative ease. By selecting the "cooperative monitoring" approach to surface receiving water monitoring, growers avoid this burden for surface receiving water monitoring. If any individuals should elect to do surface receiving water monitoring on their own (outside of the cooperative program) it is true that they will have a very short time frame in which to accomplish this. If they choose to do so, there are QAPP templates and a "SWAMP QAPP Advisor" available on the Surface Water Ambient Monitoring Program website, at http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#. Additionally, the existing CMP QAPP can be used as a reference for structure and content.
Comment No. 272 from San Luis Obispo Farm Bureau. Letter No. 30, p.2. Monitoring/Reporting	The constituents to be tested through the monitoring program is still of a major concern for our growers. There are constituents such as fecal coliform and e. coli or some metals which are not agricultural contributions to the water quality. We believe that the testing should only reflect those constituents used which post a concern in the impacted areas, such as Chlorpyrifos and Diazinon.	Staff has eliminated fecal pathogen indicators from receiving water monitoring requirements.
Comment No. 162 from Water Community Dialogue Effort of Pajaro Valley. Letter No. 31, p.2. Groundwater 79-17	We believe it is critical that the Ag Waiver accommodate managed groundwater recharge as an essential part of the solution to the overdraft. The comment indicates that collaborative efforts are underway in the Pajaro Valley to implement a pilot recharge project.	See response to "Groundwater" comments for Letter 70 (Comment No. 157) and Letter 75 (Comment No. 158). Central Coast Water Board staff is aware of the overdraft problems in the lower Pajaro basin and commends your group for collaboratively tackling the problem. We are also aware that groundwater pumping from agriculture is the leading cause of overdraft, so we are pleased that your group is working on irrigation efficiency issues. The proposed Order requires dischargers to implement management practices to reduce discharges of waste that impact water quality. As evident by other comments, many growers already use efficient methods of

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		irrigation and other may choose to comply by improving irrigation efficiency that will also minimize transport of nutrients to the water table, which is inline with your group's goals. Our Regional Board has assisted in developing the State Board's Recycled Water Policy, which has the intent of streamlining viable groundwater recharge projects. The Policy can be found at http://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/docs/recycledwaterpolicy_approved.pdf and includes provisions for Salt/Nutrient Management Plans.
Comment No. 385 from Mesa Ranch Nursery. Letter No. 32, p.1. General (Draft Agricultural Order)	The newest waiver, as it is being proposed, will greatly hinder and hamper farming and nurseries for several reasons. Why It seems to me that the Water Board staff is reaching far too far. In effect, your passage of the waiver as it is will criminalize the usage of fertilizer and pesticides, thereby throwing the agribusiness industry in California into disarray. In addition, the rules proposed are vague and contradictory. Why should the Water Board consider limiting the size and scope of farming operations? Isn't the real question, who is farming in a responsible and environmentally sensitive way, and who is not What if a large farm over 10,000 acres is farming exactly the way the Water Board wants Why should that farm be forced into down sizing This request seems to be a gross and unconstitutional intrusion of government into the private sector. Also, I do not see in the proposal a proper focus on the real problem: How to monitor and reduce ongoing pollution (loading) from agriculture in to the environment.	Use of fertilizer and pesticides are not restricted by the proposed program. The program is intended to regulate discharge of these chemicals into waters of the State. The Draft Agricultural Order like the 2004 Ag Order would require discharges to control discharges of waste to waters of the state, including fertilizer and pesticides; it does not regulate use or application. The Draft Agricultural Order does not require limits on size or scope of operations; it proposes conditions to reduce waste discharges from operations to protect water quality and beneficial uses. The Draft Agricultural Order proposes monitoring and reporting that will demonstrate if a large (or other size and scope) farm is operating effectively to prevent or reduce waste discharges, focusing mostly on operations with higher likelihood of discharging wastes (e.g., using higher tier).
Comment No. 386 from Mesa Ranch Nursery. Letter No. 32, p.1. General (Draft Agricultural Order)	First, it should work with existing operations, not against them. Do not assume that all farmers are polluters. Second, real science and improved farming techniques should be implemented and rewarded whenever possible. Your approach is punitive. Third, higher accountability as required by the water board should be	The Draft Agricultural Order is tiered, consistent with criteria and authority of the Water Board, to focus on operations that threaten or actually cause pollution from their waste discharges. The Draft Agricultural Order provides for those without waste discharges to demonstrate at enrollment that they are not polluting. Staff used tiering criteria to address different groups of operations differently

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	clearly outlined and equally applied. No special deals for certain groups! Fourth, all human activity will leave a footprint in water. It is the size and scope of that footprint that should be agreed upon using reasonable and mutually beneficial criteria. Your criteria are not realistic. Lastly, the ground water requirements in the newest ag waiver are ridiculous. No outdoor farm or nursery can guarantee the ground water quality standards you propose.	in response to thousands of comment letters, several hours of oral public comment, and Board member input. The proposed conditions in the Draft Agricultural Order directly address the groundwater quality conditions with reasonable timeframes and milestones; these conditions do not require any operation to meet ground water quality standards in ground water underlying their operation during the five-year term of the waiver and proposes 10 years for operations to reduce their individual loading or waste discharge to ground water.
Comment No. 387 from Mesa Ranch Nursery. Letter No. 32, p.2. General (Draft Agricultural Order)	No one can live without affecting water quality. No one can farm without affecting water quality. The degree to which it is affected should be addressed. It is certain that there are individuals and operations that are polluting the environment in an unacceptable way. But what you are proposing calls for such draconian changes that all farming and all human activity will be in violation of the law. I believe that farming is not the enemy of the people of California. In fact it is the life's blood of our economy and our way of life. To have water of drinking quality or better for everyone is a worthy goal that everyone can get behind. But in reality, to require farmers and nurseries to have a footprint equal to drinking water quality is not a reasonable goal. It is a radical one. A better goal would and should be to improve water quality over time, in effect to move toward having cleaner water. The goal of pure water as the CCWQCB is framing it is an unattainable goal unless the activities of large sectors are shut down, not just altered. California will be thrown into disarray.	The Draft Agricultural Order, like the 2004 Ag Order, would require dischargers to treat or control discharges of waste to waters of the state. In waiving waste discharge requirements, the Board is required to be consistent with the Basin Plan and protect beneficial uses. The proposed Order does not expect immediate compliance, but that dischargers take reasonable steps to implement or improve management practices.
Comment No. 388 from Mesa Ranch Nursery. Letter No. 32, p.2. General (Draft Agricultural Order)	Let's pursue cleaner water, not pure water.	The legal water quality goals that the Draft Agricultural Order addresses are the water quality objectives in the Central Coast Water Quality Control Plan. These water quality objectives were established to protect beneficial uses of water, including both agricultural supply and drinking water supply. They were also

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		established through a public input process and approved by the Central Coast Water Board, the State Water Resources Control Board, the Office of Administrative Law and the US Environmental Protection Agency.
Comment No. 275 from Mesa Ranch Nursery. Letter No. 32, p.1. Surface Water	All human activity will leave a footprint in water. It is the size and scope of that footprint that should be agreed upon using reasonable and mutually beneficial criteria. Your criteria is not realistic.	Comment noted.
Comment No. 488 from Mesa Ranch Nursery. Letter No. 32, p.1. Timing/Schedule 11-3	By insisting that the water footprint must cease to exceed drinking water standards within the 3-5 year time frame, you are thereby forcing a radical and sudden shift in the way things are done.	The timeframes in the Draft Ag Order refer to the timeframes for individual operations to show reduced loading or decreasing concentrations of pollutants (consistent with milestones or targets for each pollutant type (e.g., nitrate, pesticides, sediment). The timeframes in the Draft Ag Order do not refer to timeframes when individual operations must show their water footprint meets the drinking water standards. One way a discharger can demonstrate compliance with a timeframe and milestone is to show that irrigation runoff from an individual operation is meeting water quality standards. However, a discharger can also show compliance with timeframes and milestones by showing improvement in the other indicators or parameters required to be measured or observed at the place where a specific condition or action is required by the Order. For example, when a discharger must implement farm water quality practices and report on the practices in the Farm Plan or Annual Compliance Document, the Point of Compliance is the farm, ranch or location where the practice is employed. If the discharger must monitor their individual discharge, the point of compliance may be any of the following as applicable: at the edge of the farm, at an appropriate point after the discharge passes through a treatment or control structure or system that is located off the farm (e.g., a vegetated buffer or conveyance ditch adjacent to the farm), or at the point just prior to the discharge entering the receiving water body, or in the receiving water.

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		Staff edited the Draft Ag Order in a few places where the language stated or implied that the timeframes in the Draft Ag Order apply to meeting water quality standards. See further explanation in the Draft Ag Order, Part H. TIME SCHEDULE AND MILESTONES. Also, see response to Letter 11 (Comment No. 487) from Benny Jefferson, Martin Jefferson and Sons regarding explanation of the timeframes in the Draft Ag Order. Also see further discussion of timeframes and milestones in analysis of the California Farm Bureau *Federation's Draft Central Coast Agriculture's Alternative Proposal for the Regulation of Discharges from Irrigated Agricultural Lands* in Staff Report, Appendix D. Options Considered, Section VII.
Comment No. 75 from Sea Mist Farms. Letter No. 33, p.1. Economics	The costs of drip irrigation is high: up to $6,000 per acre, which includes irrigation system design changes, energy efficient pumps and motors, land leveling, land based assessment fees to pay for recycled water projects, and drip irrigation equipment, like filtration and drip tape.	Table 5 of Appendix F includes sample per-acre costs for various irrigation practices, including drip irrigation. The comment cites a cost that exceeds the examples provided in Table 5. However, the comment includes costs for land leveling and fees for water not captured by the estimates in Table 5. Staff concludes that the examples provided in the staff report (Appendix F) are within the range of likely costs for drip irrigation. The comment does illustrate that isolating expenditures for specific practices is challenging, since on-the-ground farm management involves integrating a wide variety of activities to achieve the greatest efficiency. Appendix F is not intended to suggest that a discharger must use the methods evaluated; it merely lists potential methods and costs.
Comment No. 634 from Santa Clara County Farm Bureau. Letter No. 34, p.2. Aquatic Habitat/Buffers	Another area where the Draft Agricultural Order oversteps the Regional Board's authority is the vegetated buffer requirements, which we do not believe the Regional Board has the authority to require. Not only are the buffer requirements for Tier 3 growers outside	The Water Board is required by Water Code section 13269 to assure that any waiver of waste discharge requirements is consistent with the Basin Plan. The Basin Plan's Implementation Program requires "filter strips" to protect waters of the state where there are land disturbance activities. The proposed vegetated

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	the Board's authority, they would remove significant amounts of land from production without appropriate CEQA consideration, would decrease the supply of fresh, safe, local produce, and could potentially pose a food safety threat.	buffer conditions would implement the Basin Plan. Further, the discharge of waste is a privilege, not a right (see Water Code section 13262, subd.(g)). The commenters have submitted no evidence that the vegetated buffer requirement would deprive property owners of all reasonable economic use. The proposed buffer language provides compliance options. Dischargers may propose other methods to control discharges. The requirement to discharge waste in such a way as to not impact beneficial uses of waters of the state does not effect a taking in any event, since the prevention of nuisance is not a taking. See also response to Letter 79 (CEQA Comment No. 497 in Attachment A to the SEIR in Appendix H).
Comment No. 633 from Santa Clara County Farm Bureau. Letter No. 34, p.2. General (Water Code section 13267)	The most glaring example is the nitrogen reporting requirements. Information on nitrogen applications is proprietary and represents a competitive advantage distinguishing the most successful farmers from their neighbors. As we noted in a comment letter on the February 1, 2010 proposal, Section 13267 (b) (2) of the state Water Code prohibits the Regional Board from requiring this proprietary information. Furthermore, since these reports contain information on nitrogen applied, rather than nitrogen discharged, the Regional Board has not demonstrated a "reasonable relationship to the need for the report and the benefits to be obtained from the reports" as required in Section 13267 (b) (1) (a).	Water Code section 13267(b) does not prohibit the Water Board from requiring submittal of proprietary information. It requires that if requested by the submitter, identified trade secret or secret processes will not be disclosed to the public. Staff has revised the Draft Order to clarify the process for protecting proprietary information.
Comment No. 131 from Santa Clara County Farm Bureau. Letter No. 34, p.2. Groundwater, Nutrient Management 112-1	Nitrates in groundwater are problematic in areas of the Central Coast and research suggests that agriculture is partially responsible. Rather than imposing illegal and onerous reporting requirements for irrigated agriculture, we recommend that the Regional Board work with the agriculture community and researchers to identify effective and reasonable management practices to address the legacy nitrates in groundwater and to reduce and eliminate any current nitrate loading. We also urge	The findings in this Order indicate that agriculture, in particular, historic and current use of synthetic fertilizers, is chiefly responsible for nitrate impacts to groundwater, including in the Llagas Subbasin. Staff is working to address legacy nitrate pollution by requiring agriculture to account for nitrate in their groundwater production wells when estimating nutrient application to their fields. In this way legacy nitrate is hopefully taken up and used by the crop. The Order allows five years for Tier 3 Dischargers to demonstrate effectiveness of BMPs in

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	your reconsideration of the Nitrogen Balance Ratio requirements, which are nothing if not "one-size-fits-all" and for which there is no scientific basis provided.	reducing groundwater impacts. Central Coast Water Board staff has already started to work with researchers, farmers, and CCAs to develop effective BMPs that will meet this requirement. Many worldwide studies have shown that leaching of nitrate to groundwater has been minimized when farmers account for all the N credits applied to the cropping system and balance them out with the N units demanded by the crops (Watson and Atkinson, 1999; Meisinger and Randall, 1991; Deldago et. al, 2008). In analyzing all options, staff recognized that in order to eventually achieve a "balance state" of N discharge protective of the groundwater resource, a series of increasingly more stringent steps were necessary to be taken as part of a long-term restoration and protection program. As at start, the Draft Order requires growers to first reduce, minimize, and then ultimately reach a state of balance that preserves or restores nitrate concentrations that are protective of Water Quality Objectives. The targets relate to the total reductions, minimization, and "balance state" of nitrate discharges requires that on the local scale of the individual discharger, the discharger must demonstrate that their nitrate loading is protective or results in restoration of the uppermost aquifer nitrate concentrations to Water Quality Objectives in a reasonable amount of time. The targets are based on a balance between the N taken up by the crops or N needed by the crops (to form roots, leaves, and fruit) compared to the amount of N applied (accounting for nitrate concentration in the irrigation water, N in the root zone at the time of planting or pre-side dressing, total soil amendments applied, and all fertilizers).
Comment No. 184 from Santa Clara County Farm Bureau. Letter No. 34, p.2.	The Regional Board lacks the necessary authority for some of the regulatory requirements in the Draft Agricultural Order. The most glaring example is the nitrogen reporting requirements. Information on nitrogen	The Water Code gives the Water Board authority to regulate discharges of waste that could affect the quality of waters of the State and to adopt water quality regulations and policy. Water Code Section 13267(b)(1) authorizes the Central Coast Water

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Nutrient Management	applications is proprietary and represents a competitive advantage distinguishing the most successful farmers from their neighbors. As we noted in a comment letter on the February 1, 2010 proposal, Section 13267 (b) (2) of the state Water Code prohibits the Regional Board from requiring this proprietary information. Furthermore, since these reports contain information on nitrogen applied, rather than nitrogen discharged, the Regional Board has not demonstrated a "reasonable relationship to the need for the report and the benefits to be obtained from the reports" as required in Section 13267 (b) (1) (a)….	Board to require dischargers to submit technical reports necessary to evaluate Discharger compliance with the terms and conditions of this Order and to assure protection of waters of the State. The Order and the required records provide the evidence demonstrating that discharges of waste from irrigated lands have degraded and/or polluted the waters of the State. It is reasonable to require such persons to prepare and submit technical reports. If a Discharger believes that any information requested by the Regional Board would reveal a trade secret, they would have to demonstrate that to the Board's satisfaction, and the information would be kept separate from other public records and would not be disclosed to members of the public except as required by law (e.g., pursuant to a court order). The Draft Order has been revised to clarify the process with respect to trade secrets.
Comment No. 276 from Cass Vineyard and Winery. Letter No. 35, p.1. General	Reader cites several comments submitted by the Paso Robles Wine Country Alliance, Letter 40.	See responses to Comments in Letter No. 40.
Comment No. 367 from Mike Hollarman, CCA. Letter No. 36, p.1. Implementation	As a consultant for the agricultural farming groups (vegetables and grapes) many of the Nitrate and runoff issues could be solved by requiring all fertilizer uses are signed off on by a licensed Certified Crop Advisor (CCA). These people must pass a federal and state test on nutrient and pesticide use and must have continuing education hours every year to maintain the license. Also the pesticide runoff issues may be improved with the requirement that all pesticide uses must have a recommendation written only by a Pest Control Advisor (PCA) which are also licensed by the state of California and also need continuing education requirements for license continuation.	Comment noted on requiring all fertilizer uses to be signed off on by a licensed Certified Crop Advisor (CCA). The Draft Order includes a requirement that CCAs or other professionals sign off on nutrient management plans because staff believes that reducing nitrate loading to groundwater must be first addressed by limiting and eliminating excessive nitrogen application to crops. Technical assistance from a fertilizer and nutrient management professional to apply the amount needed by the crop, minimize all potential losses to groundwater, and implement techniques to recapture and reuse any available nitrogen in the soil profile will assist growers with compliance.

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Comment No. 15 from Sierra Club. Letter No. 38, p.4. Aquatic Habitat/Buffers	We agree that Aquatic Habitat requires protection as a beneficial use including aquatic life (warm or cold freshwater habitat, wildlife habitat). We view aquatic and riparian habitat as inter-dependent with water quality in its role hosting the chemical, physical, and biological processes that function to keep water clean and vital. It serves as an indicator of the integrity and health of a watershed and its resistance to water pollution and groundwater contamination.	Comment noted.
Comment No. 16 from Sierra Club. Letter No. 38, p.4. Aquatic Habitat/Buffers	We are encouraged by the case studies cited in the earlier February 1,2010 PRELIMINARY DRAFT STAFF RECOMMENDATIONS FOR AN AGRICULTURAL ORDER page 17 where constructed wetlands were installed providing a measured level of water quality improvement… We believe the aforementioned projects in the Pajaro River Watershed (and projects in other locations in the region) provide opportunities to address agricultural run-off pollution issues to a significant degree.	Comment Noted. The Draft Agricultural Order allows and encourages collective or regional treatment systems such as those mentioned in this comment. The Draft Agricultural Order also allows for alternative time schedules, milestones and monitoring for such systems by Executive Officer approval.
Comment No. 129 from Sierra Club. Letter No. 38, p.3. Groundwater (Monitoring)	Perhaps an International Standards Organization (ISO) protocol can ultimately be developed specific to Pajaro Valley excess irrigation, storm water discharge practices adjacent to: Levees or modified floodplains, reclaimed water pipelines, wetlands, groundwater recharge areas (instream and off stream). Perhaps the universal recognition of an ISO for water quality could contribute to the array of solutions appropriate to address the food safety confidence issue.	Comments noted.
Comment No. 155 from Betteravia Farms. Letter No. 39, p.1. Groundwater	I have farmed near Santa Maria's sewage treatment plant for many years and have monitored our water wells near this site and can easily say that this facility has negatively affected ground water quality. Now additional acreage has been purchased just east of this plant and	All municipal wastewater treatment facilities are currently regulated within our Region. They are subject to relatively significant monitoring and reporting requirements, prohibitions, effluent limitations and potential enforcement action as result of non-compliance. Currently, agriculture is relatively unregulated

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	acres of additional settling ponds are to be installed for expansion of the sewage treatment facility. Laguna Sanitation just down the road a few miles uses a reverse osmosis process that is much easier on the environment and groundwater due to the fact that the RO treated water can be applied to pastures and other plant life because all the salts and heavy metals are separated and pumped down an injection well. Explain to me in this day and age how we can let facilities like Santa Maria's sewage treatment plant continue to operate this way.	and has been shown to contribute upwards of 80 percent of the nitrate loading to groundwater and is responsible for widespread groundwater and surface water impacts associated with tailwater runoff and leaching. Although existing regulatory oversight of various wastewater facilities within the Region may not adequately address groundwater impacts, pollutant loading from these facilities tends to attenuate and thus be limited in aerial extent as compared to the documented widespread and severe impacts to both surface and groundwater attributable to irrigated agriculture. Consequently, addressing water quality impacts associated with agricultural practices is currently our highest priority. Nonetheless, increased regulation of municipal discharges, particularly related to nitrogen loading, is ongoing on a facility-by-facility basis and at some point will be addressed via a regional effort. Information documenting impacts to water quality associated with a wastewater facility should be reported directly to the Water Board so it can be addressed as appropriate.
Comment No. 17 from Paso Robles Wine Country Alliance. Letter No. 40, p.3. Aquatic Habitat/Buffers 43-4, 77-3	Your Board quantified the objectives for the next 5 years during the May and July Workshops to focus on surface water nitrates and organophosphates; secondary sediment and riparian issues should be addressed later.	Comment Noted.
Comment No. 648 from Paso Robles Wine Country Alliance. Letter No. 40, p.3. Economics 43-4, 77-3	8) Cost/Benefit: Although we appreciate the attempt to evaluate costs associated with the Order in Appendix F a full cost/benefit analysis is still needed. The Water Board needs to better define their rationale for the proposed requirements to justify the costs imposed on the agricultural community as well as provide a more accurate cost of the Ag Order.	Page 4 of Appendix F states, the Central Coast Water Board is not generally required to consider costs when it adopts a waiver of waste discharge requirements pursuant to Water Code section 13269. Water Code section 13269 requires the Water Board to impose conditions on any waiver and the waiver must be consistent with the applicable water quality control plan (Basin Plan). Water Code section 13141 requires regional water boards to estimate the total costs of any agricultural water quality control program and an identification of potential sources of financing when a Regional Water Board amends a Basin Plan. The Draft

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		Order is not proposed to be included in the Basin Plan; however, this cost analysis provides the information that would be required by Water Code section 13141. The Central Coast Water Board is not required to consider economic or social impacts under the California Environmental Quality Act (CEQA) except where such impacts result in actual physical adverse impacts on the environment caused by the project. This cost analysis provides information that is used in the CEQA document to be considered by the Central Coast Water Board. The Central Coast Water Board is not required to perform a formal cost/benefit analysis when issuing waste discharge requirements or a waiver of waste discharge requirements or when complying with CEQA.
Comment No. 662 from Paso Robles Wine Country Alliance. Letter No. 40, p.4. General (Education)	Incentives and education go much farther in addressing the end goal of resource protection than regulation ever could; when people are motivated to do good (particularly by their peers), they will do good.	Staff considers education valuable for the purpose of assisting growers with appropriate implementation that will reduce their pollution loading and improve water quality. However, Staff does not consider education an important action to track or enforce and has removed the education requirements from the revised Draft Order. Also, see response to Letter 2 (Comment No. 658).
Comment No. 185 from Paso Robles Wine Country Alliance. Letter No. 40, p.3. Implementation (Notice of Intent, NOI) 43-3, 77-2, 113-1	6) NOI Requirement: The requirement to submit an updated NOI before the updated Ag Order is adopted is problematic in that there is no regulatory mechanism to enforce this. Also, there needs to be a mechanism for data submission in a non-electronic form for those farmers who do not use, or do not have, internet access.	Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, Order No. R3-2010-0040, Part IV, Provision No. 5, requires operators to provide to the Water Board information needed to determine compliance with the Order. Pursuant to that authority, the Water Board required those dischargers to provide their most current information. The updated NOI submittal before the December 3 deadline was established to allow for accurate and timely billing for the Cooperative Monitoring Program, so operators could submit updates to their acreages that were last submitted in 2008. The later January 31, 2011 deadline facilitates operators who had no acreage updates. The Water Board is moving toward a more resources-efficient

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		paperless system and database accuracy and information handling capabilities will improve by asking operators to submit their current information in an electronic format. Operators without internet access have the option of scheduling an appointment with Central Coast Water Board Ag program staff. Ag staff scheduled over 100 appointments, taking the information over the phone, completing the NOI electronically, and mailing a copy for signature and return to the Water Board.
Comment No. 188 from Paso Robles Wine Country Alliance. Letter No. 40, p.2. Implementation, Irrigation (Irrigation, Implementation) 43-2, 44-2, 45-2, 50-1, 71-2, 77-1, 110-1, 111-1	Vineyards utilize deficit irrigation practices, drip tubing, water to root technology, drip irrigation and soil moisture calibrations. These practices should be encouraged and incentives given to maximize practices that serve to minimize water quality degradation.	Irrigation efficiencies such as you are employing, certainly help to minimize an operator's potential to discharge waste to our already polluted waters (both surface water and groundwater). The Central Coast Water Board recognizes that due to different types of operations discharges of waste from irrigated lands may have the potential for different levels of impacts on waters of the state. This draft Order establishes three tiers of regulation to take into account the variation, including different regulatory conditions for the three tiers. The lowest tier, Tier 1, applies to dischargers who appear to discharge the lowest level of waste, posing the lowest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States and thus have the fewest requirements. Additionally, your irrigation efficiencies are not only reducing input costs (e.g., water usage fees) but also result in reducing/eliminating tailwater discharges which benefits water quality benefits and a benefit to your operation in a reduced monitoring program fees (a portion of the CMP billing relates to tailwater discharges).
Comment No. 189 from Paso Robles Wine Country Alliance. Letter No. 40, p.3. Implementation, Irrigation (Irrigation, Implementation)	There needs to be a mechanism for data submission in a non-electronic form for those farmers who do not use, or do not have, internet access.	The Water Board is moving toward a more resources-efficient paperless system and database accuracy and information handling capabilities will improve by asking operators to submit their current information in an electronic format. Operators without internet access have the option of scheduling an appointment with Central Coast Water Board Ag program staff to

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43-4, 71-2, 77-2, 113-2		complete the NOI.
Comment No. 277 from Paso Robles Wine Country Alliance. Letter No. 40, p.2. Monitoring/Reporting 43-2, 45-2, 50-1, 51-1, 111-1	Receiving Water Monitoring: Dischargers who do not cause tailwater, as is the case for vineyards, should not be subject to receiving water monitoring.	Sediment, nutrients and pesticides may move into waters of the state through other mechanisms than tailwater (infiltration to groundwater, stormwater runoff, etc.). Some vineyards use chemicals that are of concern for water quality, including Orthophosphate pesticides. Any discharger may submit a request to the Executive Officer to approve transfer to a lower tier that must provide information to demonstrate they meet the criteria of the lower tier.
Comment No. 77 from Paso Robles Wine Country Alliance. Letter No. 40, p.3. Monitoring/Reporting 43-4, 77-3	Data collection should not exceed that which staff can reasonably review and enforce. Admittedly, staff cannot manage and oversee the extent of data to be collected under staff's proposal. Page 37 of Appendix F states that "with the current staffing and budget, staff cannot review information from, nor inspect, most of the operations in the region". An obvious question is why more data is being requested if staff cannot review the information nor inspect the operations.	Staff is developing electronic tools for data delivery to allow for maximal efficiency in data review and management. A first step toward comprehensive data collection is implementation of the aforementioned electronic submittal of the NOI. Data management is and will continue to be a challenge. However, that in itself is not a reason for not collecting the data necessary to evaluate compliance. As you reference, the Draft Order recognizes that challenge and the Order requirements will likely provide the most manageable workload for Water Board staff. This option supports collection of adequate type and amount of information to inform implementation and water quality improvement and help determine compliance and enforce where necessary. Page 37 of Appendix F also states, under the Draft Order the Water Board staff plans to implement at the same level of resources as the existing Order but expects to gain efficiencies in encouraging and tracking progress and responding with enforcement as needed. Staff will be able to prioritize more effectively by relying on both watershed-scale water quality data and refined and increased reporting. The Draft Order requires basic information from all operations that better indicates water quality threats (such as pesticide use and proximity of

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		applications to waterbodies). Additionally, staff plans to rely on new and enhanced databases to collect and manage data and information so that the increased volume of information and data can be reviewed, organized and analyzed more efficiently.
Comment No. 278 from Paso Robles Wine Country Alliance. Letter No. 40, p.3. Monitoring/Reporting 43-3, 77-2	The final list of impaired water bodies should correlate to the specific impairments called into question by this Order. For example, an impaired waterbody that is listed under pesticide impairment due to DDT should not be a matter of this order as present farming conditions are not contributing further to this impairment. A single list needs to be referenced and used for the life (5 years) of the Ag Order. Otherwise, there is too much uncertainty in determining what tier you are in.	Though the original list of impaired waterbodies used to generate the CMP site list for the 2005 program may have included listings for DDT and other banned chemicals, new data on pesticides and toxicity collected through the CMP confirm that these waterbodies are still impaired by agricultural chemicals currently in use. When data shows that waters are no longer impaired, they will be removed from the list through the Clean Water Act section 303(d) listing and delisting process, and will be removed as a sampling requirement for the receiving water program. Staff will revise the lists in the Draft Order to increase clarity for the user.
Comment No. 280 from Paso Robles Wine Country Alliance. Letter No. 40, p.4. Monitoring/Reporting 43-4, 77-3, 111-2	The first 5 year Ag Waiver Program has been a success in collecting data and getting the farming community and regional board to begin talking about solving water quality issues. The next 5 years should encompass a priority-based approach targeting the most extreme issues to build momentum to continue to work collaboratively on water quality concerns.	Comment noted. Staff agrees the first 5 years of the Cooperative Monitoring Program has been successful at collecting data and getting the farming community talking about solving water quality issues. The tiered approach proposed for the next five years is a way to focus priorities on highest risk operations.
Comment No. 281 from J. E. Farms, Inc. Letter No. 41, p.1. Surface Water 60-4	The Staff Draft of the Ag Waiver does not take into account baseline levels of both nutrient and toxicity levels in either ground or surface water. These levels have been reached due to decades of inputs, both agricultural and otherwise. The impact of practices long ago abandoned by the agricultural industry because of their impact on water quality are still being manifested in background levels in both ground and surface water. Undoubtedly, some of these levels are due to agriculture and these is certainly room for growers to improve practices that impact water quality, but to set timelines and milestones for improvement in a matter of a few	Most chemicals found in surface water at high concentrations are a result of recent, not past, practices. Toxicity has been shown to be a result of currently applied pesticides. Recent reports by the Cooperative Monitoring Program on sediment toxicity have confirmed pyrethroid pesticides and chlorpyrifos as primary culprits. The same report noted that levels of legacy organochlorine pesticides (like DDT) were low overall, and unlikely to cause toxicity. Staff has eliminated measurement of these chemicals from the MRP. Nitrate is a highly soluble chemical, and past applications from many years ago that have not entered the groundwater have likely been taken up by plants or moved downstream into ocean waters. Staff has observed

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	years to problems that were caused many years ago is unrealistic and impossible for the industry to achieve.	highly contaminated systems improve over a very short time period when nitrate applications stop (see Prefumo Creek data referred to in Attachment A). Regarding groundwater conditions, see response to Letter 34 (Comment No. 131).
Comment No. 186 from Vard and Terri Ikeda. Letter No. 42, p.1. Implementation (Notice of Intent, NOI)	As a local Avocado grower, I'm in full agreement with the letter sent to you by the California Avocado Commission. With our micro-sprinklers there is never any irrigation water leaving the orchard. Putting these blanket mandates on every grower is not necessary.	We commend your efforts to eliminate runoff from your orchard. Many operations have some discharge, either through percolation of wastes such as nutrients or pesticides to groundwater or through movement of nutrients, pesticides, or sediments offsite during storm events. Drip and micro sprinklers are generally less likely to impact water quality than tailwater discharges, there is a potential impact to groundwater if the systems is not properly operated or maintained. This Order covers irrigated operators who may discharge some waste in the course of their operation. The Central Coast Water Board recognizes that due to different types of operations discharges of waste from irrigated lands may have the potential for different levels of impacts on waters of the state. This draft Order establishes three tiers of regulation to take into account the variation, including different regulatory conditions for the three tiers. The lowest tier, Tier 1, applies to dischargers who appear to discharge the lowest level of waste, posing the lowest potential to cause or contribute to an exceedance of water quality standards in waters of the State or of the United States and thus have the fewest requirements.
Comment No. 282 from Alta Colina Vineyard and Winery. Letter No. 43, p.1. General	I am a winegrower with 31 acres of vines in the Paso Robles appellation. I am forwarding Ms. Bodrogi's letter because she expresses my objections to your proposed Draft Ag Order much better, and much more calmly, than I could. Please listen to what she has to say.	See responses to Comments in Letter No. 40.
Comment No. 283 from Barr Creekside Vineyard, LLC. Letter	An exemption from additional monitoring and requirements should be available for farming practices	The tiering system allows low impact operations to have minimal additional monitoring requirements but still provides staff

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No. 45, p.2. Monitoring/Reporting 51-1, 71-2	and operations that are not contributing to water quality degradation.	information to help verify that these minimal requirements are appropriate. Additionally, any discharger may submit a request to the Executive Officer to approve transfer to a lower tier that must provide information to demonstrate they meet the criteria of the lower tier.
Comment No. 423 from Shayne Meritt. Letter No. 46, p.2. Implementation (Nitrate Hazard Index)	Designating all irrigated acreage that grows crops with "high nitrate loading potential" as automatically Tier 2 or 3 is inconsistent with the recommendations of the Nutrient Technical Advisory Committee (TAC) appointed by the California State Water Resources Control Board. The TAC proposed a nitrate hazard index based on the soil type, crop, and irrigation systems – not merely crop. The University of California Center for Water Resources provides an easy-to-use interactive tool that assigns an index number based on crop, soil, irrigation, and ripping depth (http://wrc.ucanr.org/search2.php). Index numbers greater than 20 "should receive careful attention." Use of this index would be better than simply listing crops with high nitrate loading potential. Even better would be modifying the index to include such practices as use of cover crops and not fertilizing during the rainy season. #2 Recommended change to Tier criteria: eliminate: "does not grow crops with high nitrate loading potential" replace with: "has a Hazard Index less than or equal to 20 or has a Hazard Index between 20 and 25 and uses cover crops and does not use fertilizer, pesticides, or herbicides during the rainy season."	See response to Letter 79 (Comment No. 439).
Comment No. 284 from Shayne	Central Coast Water Quality Preservation's FOLLOW-	It is a correct observation that the legal definition of the impaired

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Meritt. Letter No. 46, p.1. Monitoring/Reporting	UP MONITORING REPORT: WATER QUALITY RESULTS FROM UPSTREAM MONITORING 2008 (2010) confirms that not all sections of an impaired water body contribute to impairment.	waterbody may include some reaches that are not impaired (for example, at the far upstream end of the waterbody). Any discharger may submit a request to the Executive Officer to approve transfer to a lower tier that must provide information to demonstrate they meet the criteria of the lower tier.
Comment No. 663 from Greywater Action. Letter No. 47, p.2. General (Feb 1, 2010 Preliminary Draft)	However, we are very disappointed that in spite of the verbal commitment to regulate agricultural discharges due to overwhelming evidence of human health and drinking water concerns, the 2011 Draft Order is significantly weaker than the Draft Recommendations released by the Regional Board Staff on February 1, 2010.	See response to Letter 16 (Comment No. 660) by Dana Perls, Pesticide Watch.
Comment No. 137 from Greywater Action. Letter No. 47, p.4. Groundwater (Monitoring) 16-5, 20-4, 21-3, 66-4, 87-5, 105-6	Backflow prevention devices are being mandated in order to protect groundwater. However, we find it unjustifiable that dischargers are being given 3 years to comply with this requirement. We strongly urge that dischargers be required to install and maintain backflow prevention devices within 1 year.	Comment noted. The draft Ag Order requres dischargers to install and maintain adequate backflow prevention devices by October 1, 2012
Comment No. 285 from Greywater Action. Letter No. 47, p.3. Pesticides/Toxicity	We agree that Diazinon and Chloropyrifos are dangerous pesticides with high toxicity. However, we disagree with Staff's approach to specify just these pesticides in the Tiering criteria to the exclusion of other pesticides which may be just as harmful. This approach also ignores the public health concept of synergism: that two or more pesticides working together may create combined effects and harm that has not even been properly understood or documented. Toxicity does not arise merely from the use of these two pesticides, and we fear that many dischargers will escape Tier 3 high-risk monitoring merely by shifting to other toxic pesticides. Hence, we feel strongly that Staff should not specify just these pesticides in the Tiering criteria, but rather focus on all pesticides that will increase toxicity	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become equally problematic they may be added to requirements for individual discharge monitoring. At this point staff is using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase our ability to detect problems associated with pyrethroid pesticides, we have replace algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the

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	and damage water quality.	authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional chemicals or toxicity tests as necessary.
Comment No. 286 from Greywater Action. Letter No. 47, p.4. Surface Water 16-5, 20-4, 87-5, 105-5	Problems with changes in numeric and narrative standards: The 2011 Draft Order removes essential provisions from the February Draft Order regarding point of compliance for drinking water standards. The 2011 Draft Order shifts compliance from the responsible farm to the receiving waters. PWEF feels that this will make it more difficult to regulate polluters and to hold farms accountable for their contamination. Also, the contamination will not just affect the receiving waters, but also groundwater. How will this be monitored It is unclear how compliance for drinking water standards for groundwater will be met. The Regional Board must focus not just on regulation but on actual outcomes, and hence must identify where the contamination is arising. In order to know the sources of contamination, we feel strongly that the point of compliance for drinking water standards must be the discharger's farm.	The Draft Order does not shift compliance from the responsible farm to the receiving waters. The Draft Order requires the dischargers to control or treat waste sufficiently to make sure that the wastes are not discharged at levels that cause or contribute to exceedances in water quality standards. The drinking water standards only apply in the waterbody for which they are designated so it does not make sense to determine edge of farm as a "compliance" point for these standards. It does make sense, to consider the amount of pollution in the waste discharges at the edge of farm to determine whether a particular operation is contributing to an exceedance of the standards in the receiving water body. This approach is consistent with both the State's Enforcement Policy and Nonpoint Source Pollution Control Policy. This approach also acknowledges that full achievement of water quality objectives in surface and groundwater will likely take longer than achieving pollutant load reduction and control of individual waste discharges from individual operations. Related to this approach to evaluating compliance for individual operations, the Draft Order requires receiving water monitoring for surface and groundwaters to evaluate compliance with the terms of the Order and the effectiveness of management practices. Also, see response to Letter 83 (Comment No. 395) and Letter 85 (Comment No. 401).
Comment No. 192 from Eugene Rene LeRoy Trust. Letter No. 48, p.2. General (Discharger Definition, Landowner)	The Draft Order proposes to apply both to landowners and operators (collectively defined as "Dischargers") but it does not specify what steps a landowner must take if the operator of a farm has enrolled in the agricultural waiver program. The Draft Order states several times that a landowner must "ensure" that an operator is in compliance (see Draft Order at p. 9 and Draft Order	See response to Letter 15 (Comment No. 623). Under the terms of the Irrigated Agriculture Program, both the landowner(s) and operator(s) will be held responsible for compliance with conditions and requirements of the adopted Ag Order. The NOI requires information about all responsible parties (e.g., owner, operator/responsible, ranch contact) and maybe

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	Attachment A at p.44), yet including landowners within the definition of "Discharger" implies that every landowner must enroll in the irrigated lands program. This cannot be what staff intended, and the proposed role of landowners must be clarified. The ultimate legal responsibility lies with the landowner, and the Regional Board's enforcement capacity is limited to the discharging landowner.	filed by either party. The Draft order requires that dischargers include in the NOI, a statement of understanding of the conditions of the Order and MRP signed by the Discharger (landowner or operator). If the operator signs and submits the NOI, the operator must provide a copy of the completed NOI to the landowner(s).
Comment No. 287 from Eugene Rene LeRoy Trust. Letter No. 48, p.2. Monitoring/Reporting	The Trust has reviewed comments submitted by Central Coast Water Quality Preservation, Inc. (the entity that runs the Cooperative Monitoring Program under the existing agricultural waiver) regarding certain ambiguities and flaws in the proposed Monitoring and Reporting Program, and the Trust concurs with these concerns. Although Preservation Inc. believes it cannot take a position on the newly proposed requirement that growers conduct individual water quality monitoring, this should not be a component of a new agricultural waiver program. Requiring individual monitoring will not only be burdensome and expensive for growers, but is bound to result in non-uniform, unhelpful, voluminous reports that contribute little toward improving water quality. Individual monitoring has been rejected by other regional water quality control boards and it should duly be rejected by this Board.	Comments noted. See response to Letter 13 (Comment No. 240) and Letter 100 (Comment No. 362). Many suggestions and edits brought up by CMP staff have been incorporated in the Draft Agricultural Order and Monitoring and Reporting Program. Individual monitoring is necessary to ensure that higher risk operations are accountable for water quality discharged from their properties, and so that resources can be focused where problems are arising.
Comment No. 424 from Steve Christian. Letter No. 49, p.1. General (Applicability)	I farm 25 acres of head trained, dry farmed Zinfandel grapes. If I think the year will be very rainy, I plant a cover crop of legumes (2009, 2005) I use minimal inputs into the growing of my grapes. I do not irrigate as I am dry farmed, so I am wondering why I am being put into Tier 1 of the program and will be forced to fill out many many forms, attend 15 hours of classes per year to stay updated on irrigation practices that I don't need	The Draft Ag Order regulates discharges of waste from irrigated lands where water is applied for producing commercial crops. Growers who do not irrigate (e.g., dry farming where no irrigation water is ever applied) are not subject to the Order.

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Comment No. 369 from Estrella Farms. Letter No. 51, p.2. General 93-2	We supported the ag waiver program that was implemented in 2004 by the Regional Water Quality Control Board.	Comment noted.
Comment No. 289 from Estrella Farms. Letter No. 51, p.1. Monitoring/Reporting 50-1	Farming operations that do not result in tailwater (i.e. drip irrigated vineyard operations) and are closely monitored for input requirements to the specific plant needs, should be exempt from a tiered approach. Dischargers who do not cause tailwater, as is the case for vineyards, should not be subject to receiving water monitoring.	See response to Letter 45 (Comment No. 283) and Letter 40 (Comment No. 277).
Comment No. 18 from Salinas River Channel Association. Letter No. 53, p.2. Aquatic Habitat/Buffers	There are research gaps in the effectiveness of the use of vegetative filter strips for water quality improvement.	See response to Letter 11 (Comment No. 10).
Comment No. 20 from Salinas River Channel Association. Letter No. 53, p.2. Aquatic Habitat/Buffers	We believe there are research gaps in effectiveness for water quality improvements.	See response to Letter 11 (Comment No. 10).
Comment No. 19 from Salinas River Channel Association. Letter No. 53, p.2. Aquatic Habitat/Buffers	The terms conditions and or requirements of the Water Quality Buffer Plan are unclear	Staff edited the conditions for clarity.
Comment No. 489 from Salinas River Channel Association. Letter No. 53, p.2.	Proposed Standards and timelines cannot currently be met; the science and research must be completed; that requires time. Some of these levels listed are due to	See response to Letter 11 (Comment 487) and Letter 32 (Comment 488) regarding explanation of the timeframes in the Draft Ag Order.

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Timing/Schedule	agriculture (as a non-point source) and there is certainly room for growers to improve practices that impact water quality, but we request that you not set timelines and milestones for improvement in a matter of a few years to problems that were caused many years ago.	Regarding legacy contamination, see response to Letter 34 (Comment 131) and Letter 83 (Comment 390)
Comment No. 21 from Form Letter - Bruce Knobeloch, etc. Letter No. 55, p.1. Aquatic Habitat/Buffers, Implementation (Bare Soil)	Major concerns include:• That operators are prohibited from having bare soils vulnerable to erosion that contribute to an exceedance of sediment run-off.• That operators must protect existing aquatic habitat by maintaining riparian functions such as streambank shading, aquatic and wildlife support and maintain naturally occurring mixed vegetative cover in aquatic habitat areas • That by October 1, 2012 Tier 2 and 3 dischargers with operations adjacent to or containing an impaired waterbody for sediment, temperature or turbidity must conduct photo monitoring to document the condition of the waterbody including the estimated widths of vegetative filter strips and management practices or measures to address impairment • That by October 1, 2015, Tier 3 dischargers with operations adjacent to or containing an impaired waterbody (listed in Table 1) must submit a Water Quality Buffer Plan that protects the waterbody and its associated perennial and Intermittent tributaries that includes a minimum 3q foot buffer' measured horizontally from the top of bank on either side of the waterway, vegetated zones within the buffer to control temperature, reduce velocity, control sediment deposition, provide treatment through infiltration. Each of these bulleted concerns directly contradict a grower's ability to meet food safety standards,	Regarding food safety, see response to Letter 79 (Comment No. 4). Regarding bare soils see response to Letter 82 (Comment No. 638).
Comment No. 79 from Form Letter - Dana Rodrigues, etc. Letter No. 56, p.1.	Implementation of these water regulations as proposed will effectively put my total farming operation out of business. The physical improvements, monitoring and	Comment noted.

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Economics	reporting are cost prohibitive to my small operation. If this is adopted as written I will have no choice but to close down my farming operation and send approximately 100 employees to the unemployment rolls in Santa Cruz and Monterey Counties. Further to this I fear that the value of my land will be greatly impacted and I will be unable to lease, develop, or sell properties that I have owned for over 20 years. This is further evidence of our State of California forcing employers to look to other more business friendly states in order to survive. Unfortunately for me I will be forced out of business and shut down as I have no other options.	
Comment No. 664 from Form Letter - Unitarian Fellowship, etc. Letter No. 57, p.4. General (Feb 1, 2010 Preliminary Draft)	The 2011 Draft Order is …much weaker than the February Draft. We urge you to revert to the February Draft as that is more responsive to drinking water, public health and environmental justice concerns.	See response to Letter 16 (Comment No. 660) by Dana Perls, Pesticide Watch.
Comment No. 290 from Form Letter - Unitarian Fellowship, etc. Letter No. 57, p.1. Monitoring/Reporting	We are disappointed that the Staff has specified 2 particular pesticides, Diazinon and Chlorpyrifos, in the Tiering criteria, but have excluded many other toxic pesticides, and have also overlooked the fact that synergies between chemicals produce the most potent and dangerous impacts on human health. We urge you to not specify just these pesticides in the tiering criteria, but rather focus on all pesticides that will increase toxicity and damage water quality.	See response to Letter 15 (Comment No. 247).
Comment No. 80 from Salisbury Vineyards. Letter No. 58, p.1. Economics	This extra cost of complying with your requirements as a Tier 2 grower plus whatever setback you get approved will mean we will probably have to take out5 acres of wine grapes. This high quality block of Pinot Noir is now in its 11th year and just now becoming a profitable unit. It cost us over $150,000 cash to install plus additional	Comment noted.

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	$15,000/year maintenance for5 years until we got our first full crop. To force us to destroy this vineyard would be a travesty. What do you expect us to put on the property with a $50,000 an acre purchase price - housing, equipment storage, horse-cow pasture We surely are going to have to get something back on our investment.	
Comment No. 22 from Monterey County Farm Bureau. Letter No. 59, p.2. Aquatic Habitat/Buffers	Growers also follow buffer requirements that are specified in the Leafy Greens Marketing Agreement, which creates potential conflicts between the proposed riparian buffers in the Staff Ag Waiver draft proposal and the Leafy Greens Marketing Agreement.	See response to Letter 79 (Comment No. 4). The Water Board in issuing a waiver of waste discharge requirements must include conditions to assure that the waiver is consistent with the Basin Plan. As noted in response to Letter 15 (Comment No. 8) the Basin Plan includes the use of filter strips. If the use of buffer strips is not practicable for a particular discharger due to other considerations, such as the Leafy Greens Marketing Agreement, the discharger must still comply with the requirement that the discharger control discharges of sediment and other wastes so they do not violate water quality standards. The Water Quality Buffer Plan would need to address the discharges of waste.
Comment No. 81 from Monterey County Farm Bureau. Letter No. 59, p.1. Economics	While many cities on the Central Coast are paying a high price to treat their water to remove nitrates, there are many communities who are forced to drink toxic water or are forced to pay a high price for buying replacement water.	Comment noted.
Comment No. 425 from Monterey County Farm Bureau. Letter No. 59, p.2. Implementation, Irrigation (Irrigation runoff and tailwater)	One area where science is being ignored is in regards to irrigation practices. The positive effects and improvements in agricultural irrigation practices are not mentioned in the Staff Ag Waiver draft proposal. Scientific results have been published on the benefits of irrigation relating to climate change; irrigation by agriculture has contributed to the moderation of summertime temperatures and the reduction of fugitive dust events. By controlling the irrigation rates and flow of tailwater, the overall effect on the climate could lead to	Staff recognizes that the use of irrigation in cropping systems has also caused positive effects and changes to the environment, specifically by ameliorating climate change impacts. However, the Regional and State Board mission is the protection of water quality and of water resources beneficial uses, which are as important to the preservation of the environment and human populations as it is the attenuation of global temperatures.

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	more damaging effects in the future. While we are considerate that irrigation run-off water quality must be improved, the reduction of any traditional irrigation patterns could trigger other harmful results in our ecology.	
Comment No. 366 from Monterey County Farm Bureau. Letter No. 59, p.3. Monitoring/Reporting	The Staff Ag Waiver draft proposal sets forth numerous new regulations levels on growers, yet fails to mention how Staff will be managing the new processes and the database required to run the programs. Growers will be asked to pay significant fees to CCRWQCB under these new regulations while there is no evidence that Staff will be able to manage these new regulations or database.	Staff is developing electronic tools in collaboration with the State's Geotracker software designers to aid in managing new data.
Comment No. 370 from Darlene Din. Letter No. 60, p.1. General	The data provided by the Cooperative Monitoring Program (CMP) does indicate that discharges of waste associated with agriculture (e.g., pesticides, sediment, nutrients) are a major cause of water pollution in the Central Coast region.	Comment noted.
Comment No. 82 from Monterey Bay Nursery, Inc. Letter No. 61, p.1. Economics	This is going to be extremely costly and of little benefit for its trouble and expense. It has already caused us to consider whether or not we can afford to stay in business, and provide the 75 full time jobs for those who depend on us for a paycheck. We instituted runoff recovery and reuse twenty years ago, on our own initiative and at our own expense. This draft Ag Order, if adopted without important changes, will greatly impact our nursery, reduce the value of our land and make questionable the financial survival of our company.	Comment noted. The proposed Order would not require change in practices where those practices are effective at controlling discharges of waste.
Comment No. 156 from CA Cut Flowers Com., CA Assoc. Nurseries and Garden Centers. Letter No. 64, p.2.	Other issues of concern include the determination of any particular entity's contribution of contaminates (COC) in ground water aquifers. In some cases the water in an unrestricted aquifer may have contributors outside the board's jurisdiction. We also have concerns that septic	The evaluation of existing data and reports contained within Appendix G of the draft Ag Order clearly show that agricultural practices are the number one source of nitrate loading to groundwater (up to 80 percent within Monterey County) as compared to livestock operations, domestic/municipal wastewater

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Groundwater	systems and live stock operations may not be accounted for in the determinations of levels of contribution. This also brings up the documentation of wells on and around particular sites. Well ordinances in the various counties range from quite strict to non existent. The staff will need to clarify any proposed requirements and their specific relevance in this regard.	disposal and atmospheric deposition. In addition, nitrate loading from agricultural practices is occurring on a scale of hundreds of thousands of square acres (or hundreds of square miles) whereas loading from other sources is occurring on a much more limited scale within more localized areas only covering acres or square miles. The overlying and adjacent land use is generally the governing factor in the relative loading contributions and other sources will have to be identified and addressed as part of any localized evaluation of groundwater impacts. The Water Board is also conscious of regional differences in well ordinances and well construction documentation. Although these differences will have to be dealt with on a case-by-case basis, it is ultimately the responsibility of a given property owner or responsible party (i.e. discharger) to provide requested well information.
Comment No. 196 from CA Cut Flowers Com., CA Assoc. Nurseries and Garden Centers. Letter No. 64, p.2. Irrigation	Many of the growers in our group have irrigation runoff recapture and recycling systems. These systems can be up to 99.9 percent effective in reducing runoff from a property. They are, by nature, more concentrated with certain nutrients and thus have a greater salinity over time. There can be a random discharge usually due to a power or pump/equipment failure. There may also be a need to discharge in order to dilute the salinity build up. How will the board view this sort of issue	We commend your recycling and recapture efforts. However, all dischargers need to be aware of the Draft Order and especially relating to your question, Part B. that prohibits the discharge of any waste not specifically regulated by the Order. To discharge waste not specifically regulated by the Order, the Discharger would need to comply with Water Code section 13260(a) and submit a report of waste discharge. Additionally, random discharges of waste due to power failure, equipment malfunctioning, or any similar event could be subject to enforcement if dischargers did not use due care in controlling such random events.
Comment No. 291 from CA Cut Flowers Com., CA Assoc. Nurseries and Garden Centers. Letter No. 64, p.2. Pesticides/Toxicity 101-2	The nursery, greenhouse growers and cut flower industries are governed under state laws that mandate certain levels of cleanliness for weeds, insects and disease pests. In many cases, that requires the use of certain pesticides. In some cases such as California interior quarantine protocol mandatory use specifies the pesticide, rate and frequency of use required to meet the compliance requirements (LBAM, GWSS). The board	Under Water Code section 13360, the Regional Board may not specify the manner of compliance with the Ag Order; dischargers may comply in any lawful manner that is consistent with the Basin Plan. Staff does not expect compliance with the Draft Order to conflict with any plant quarantine requirements.

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	and staff need to be aware of this issue since it has caused a conflict in compliance with other agencies in the past. The safe and proper use of pesticides is a requirement not only in regard to water quality but is regulated by CDFA and DPR. The continued advancement of analytical equipment and detection levels of pesticides is now down to parts per trillion. A rational and practical application of sampling data will be needed to determine any actual impairments. This is an area of debate and will probably be one point that we as a team will have to work on.	
Comment No. 292 from CA Cut Flowers Com., CA Assoc. Nurseries and Garden Centers. Letter No. 64, p.3. Surface Water	In the findings of the draft order, there is reference to water quality impacts from agriculture. We would like to have from the board a breakdown of the contributions of impairment by "type" of agriculture so as to establish a baseline starting point on which to measure any improvement or lack of improvement going forward.	Comment noted. Without discharge data staff can draw broad associations with type of agriculture in the watershed area upstream of a receiving water monitoring site, but until a Total Maximum Daily Load analysis is done on an individual waterbody, staff do not have detailed information at the level of a single waterbody as to the contribution of various types of agriculture.
Comment No. 83 from Boutonnet Farms. Letter No. 65, p.2. Economics	The document ignores the risk both personal and financial that the growers undertake when investing in growing a crop - like head lettuce ($4,000 per acre per crop, and artichokes ($5,200 per acre per crop).	Comment noted.
Comment No. 84 from Boutonnet Farms. Letter No. 65, p.2. Economics	Finally, in reading the staff's recommendations, they underestimate the costs that will be associated with the implementation of a flawed piece of regulation. We are evaluating whether we will have to hire an individual ($150,000.00 annually) just to understand and help us follow and implement the regulation. The estimated costs are much greater than the staff is estimating. We estimate that sampling and lab costs could run well into the tens of thousands of dollars annually for an operation our size (5,000 ac).	Comment noted.
Comment No. 197 from Boutonnet	The use of recycled water to irrigate our crops is	We commend your recycling and irrigation efficiency efforts.

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Farms. Letter No. 65, p.1. Irrigation (Tile Drains)	supported by agriculture, leading government officials, and environmental support groups. We take treated wastewater and reuse it instead of sending it out to the Monterey Bay. However, "recycled" water is high in salts, especially Sodium, Chloride, and the water contains Nitrates higher than drinking water standards. The use of tile drains to take these irrigation water leachates away from our crop root zone is absolutely essential in maintaining the productivity of our prime farm lands. Without it we would not be able to continue to farm these properties. Through the use of recycled water, we have helped the Salinas Valley in their efforts to slow the rate of Sea Water Intrusion into the underground aquifers. With our investment in the Recycled Water Projects in the Salinas Valley it seems that we are being penalized for being on the forefront of these water reuse technologies by the Regional Board Staff. The Staff document waffles when it comes to the subject of tile drains. First, we were told that they were excluded, and then we were told that we would have to purify the discharges within a few years. We would like to challenge the Regional Board to help us come up with methodologies that would work - cost effectively - in purifying tile drain discharges Without these tile drainage systems, it is only a matter of time before the high levels of salt in our recycled water will make our soils unfarmable. Nevertheless, we are proud that we have been actively involved in keeping our farming properties sustainable through our use of recycled water and advanced irrigation practices.	Please see response to Letter 16 (Comment No. 175). There are grants programs available, some available through the State Water Resources Control Board that support advancement of studies, research, and development of methodologies and we wholly support projects that help improve water quality.
Comment No. 138 from Julie Engell. Letter No. 66, p.3. Groundwater (Monitoring)	The February Draft Order required that dischargers must comply with water quality standards at the point where water leaves the farm. The 2011 Draft Order shifts the point of compliance from the farm to the “receiving	Please see response to Letter 15 (Comment No. 175).

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	waters." Because all land in a watershed drains into the "receiving waters," this change weakens the ability of regulators to locate and hold accountable the most egregious violators. It also unfairly shifts the burden for compliance onto other farmers who share the "receiving waters" and creates a significant disincentive to comply with higher standards. It is also unclear under this scenario how drinking water standards for groundwater will be met.	
Comment No. 293 from Julie Engell. Letter No. 66, p.1. Pesticides/Toxicity	All pesticides that damage water quality should be included as criteria in defining regulatory tiers.	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become equally problematic they may be added to requirements for individual discharge monitoring. At this point staff is using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase our ability to detect problems associated with pyrethroid pesticides, we have replace algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional chemicals or toxicity tests as necessary.
Comment No. 85 from Costa Family Farms. Letter No. 67, p.2. Economics	I'd like to take a moment and talk about Appendix F, the draft technical memorandum. In their memorandum I find it interesting that our $200,000 project mentioned above was used as an example in the cost considerations. My only mention of this project came in the written and public comments which I mentioned earlier, so I believe that was about all that staff knew	Staff accepted at face value the costs and project description reported by the commenter in earlier written comments and sought no verification. This comment, which states that additional confirmation and verification of the previously submitted comments is necessary, leads staff to remove the example from document.

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	about our project, especially since the only staff member who I believe saw our project firsthand had been reassigned to another department some time ago. There has been no verification of the costs involved, no questions asked regarding any engineering involved, no questions asked regarding any liner or seal of the pond, nor any questions asked regarding the adequacy of the size of the structure which was built. I believe its inclusion in this draft document was wrong, especially considering the lack of confirmations mentioned above.	
Comment No. 86 from Costa Family Farms. Letter No. 67, p.2. Economics	In addition, the comment that ”consumers share the costs of production by paying higher prices and that the effect on total revenue of increased costs of production is substantially attenuated” tells me that somebody has no clue at all about the realities of the marketplace.	Comment noted.
Comment No. 199 from Costa Family Farms. Letter No. 67, p.1. Irrigation, Nutrient Management	When I look at the reporting requirements for my operation, especially as it pertains to nutrient applications, I see almost 1400 individual plantings that will have 3 to 4 nutrient applications to be reported in addition to chemical use. I have not seen any answers or proposals from staff with regards to whom, and how, this is going to be managed once this information is received from a grower like myself, and there are 3,000 growers in Region 3.	Data management is and will continue to be a challenge. However, that in itself is not a reason for not collecting the data necessary to evaluate compliance. The Draft Order recognizes that challenge and the Order requirements will likely provide the most manageable workload for Water Board staff. This Order supports collection of an adequate type and amount of information to inform implementation and water quality improvement and help determine compliance and enforce where necessary. The nutrient budget (Irrigation and Nutrient Management Plan) requirement currently applies only to a subset (based on a grower’s determined nitrate loading risk factor) of Tier 3 growers. By October 1, 2014 and annually thereafter, Tier 2 and Tier 3 Dischargers with High Nitrate Loading Risk must report “total” nitrogen applied per crop, per acre to each farm/ranch or nitrate loading risk unit in the Annual Compliance Document. Currently we have approximately 100-300 Tier 3 growers

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Comment No. 429 from Costa Family Farms. Letter No. 67, p.2. Tiers (Irrigation runoff)	Isn't the main question whether you have irrigation runoff or not? Where is the logic when two growers with similar chemical use and irrigation practices are placed into two different tiers merely because one is larger than the other, even if he has no irrigation runoff Generally speaking, I believe the size of our operation gives us resources to accomplish things that small growers may not be able to accomplish. Instead, this draft penalizes us for that. Not to mention the fact that there are substantial differences in monitoring and reporting requirements between Tier II and III. It shouldn't take a request to the Executive Officer to approve transfer to a lower Tier for something that appears so basic. In addition, there is no mention of a deadline for response from the Executive Officer to that request. In addition, with regards to our location within 1000 feet of an impaired surface water body, there still are no detailed questions asked. How come nobody asks whether you drain any irrigation runoff, or storm water runoff for that matter, into that impaired surface water body, or does your ground even slope towards that surface water body To me, these are the important questions.	The tiering criteria have been revised to clarify the criteria.
Comment No. 490 from Costa Family Farms. Letter No. 67, p.3. Timing/Schedule	I believe the goals of the draft proposal, the timelines regarding the elimination of irrigation runoff, the meeting of water quality toxicity standards, sediment and turbidity standards, and nutrient and salt water quality standards are in many cases physically impossible.	See response to Letter 11 (Comment 487) and Letter 32 (Comment 488) regarding explanation of the timeframes in the Draft Ag Order.
Comment No. 139 from Western Plant Health Assoc. Letter No. 68, p.2. Groundwater (Monitoring)	It is WPHA's recommendation that once the laboratory availability and capability to perform the required analyses have been established, growers should be able to participate in region-wide coalition monitoring programs. Coalitions could conduct the required	The Draft Agricultural Order was edited to clarify that the Regional Board supports the use of coalition groups for group or coalition monitoring and other functions of coalitions.

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	monitoring, and annually report the results to the CCRWQCB. The grower, in symphony with the coalition or a board approved third-party consultant or adviser will then assess the effectiveness of implemented agricultural management practices in attaining water quality benchmarks or, when necessary, alter the farm water quality management plan in order to attain water quality benchmarks and identify, implement, or upgrade management practices. The monitoring results should remain in the control of the grower coalitions and would be submitted to the CCRWQCB by those coalitions. The individual farm management plans should remain onsite, but available to the CCRWQCB staff for review	
Comment No. 295 from Western Plant Health Assoc. Letter No. 68, p.1. Monitoring/Reporting	We are concerned that the availability of laboratories accredited by the EPA or the State of California for quality assurance , quality control (QAQC) that are capable of both quantitative analysis for one part per billion or less and very species specific bioassays are quite limited, which could result in unpreventable delays in monitoring.	The CMP has met deadlines for monitoring, employing species specific bioassays and quantitative analysis that has lower reporting limits than those specified here. Staff has no reason to believe that this will change with the newly proposed program. The toxicity tests used here are similar to those required for other discharger monitoring programs. There are a number of certified laboratories available that can conduct toxicity and chemistry tests, which can be found here: http://www.cdph.ca.gov/certlic/labs/Documents/ELAPLablist.xls
Comment No. 296 from Western Plant Health Assoc. Letter No. 68, p.2. Monitoring/Reporting	It is WPHA's recommendation that once the laboratory availability and capability to perform the required analyses have been established, growers should be able to participate in region-wide coalition monitoring programs. Coalitions could conduct the required monitoring, and annually report the results to the CCRWQCB. The grower, in symphony with the coalition or a board approved third-party consultant or adviser will then assess the effectiveness of implemented agricultural management practices in attaining water quality benchmarks or, when necessary, alter the farm water quality management plan in order to attain water	The Draft Order provides the option for growers to participate in a cooperative monitoring program approach for receiving water monitoring. Whether they use the current CMP, or another one of their own initiative, or do their own receiving water monitoring is their prerogative. However, this comment may be referring to individual discharger monitoring. The Draft Order has been revised to clarify that dischargers may form and join coalitions to assist in complying with the Draft Order. Water Code section 13269 requires the Water Board to require monitoring and make the results available to the public.

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	quality benchmarks and identify, implement, or upgrade management practices. The monitoring results should remain in the control of the grower coalitions and would be submitted to the CCRWQCB by those coalitions.	
Comment No. 294 from Western Plant Health Assoc. Letter No. 68, p.1. Pesticides/Toxicity	WPHA recommends that the CCRWQCB utilize DPRs monitoring program for pesticide exceedances in the Central Coast region. Additionally, the list of chemistries identified on page 17, Part A, 67, of the CCRWQCB Draft Order Number R3-2011-0006, "Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigation Lands," includes some chemistries that are no longer licensed by DPR or classified as "Restricted Use Pesticides" and are monitored under the auspices of the existing Groundwater Protection Program. WPHA recommends that the CCRWQCB staff consult with DPR, and where appropriate remove those listed chemistries from the draft order that are no longer applicable. WPHA believes such consultation and use of already existing monitoring programs will avoid unnecessary duplication of costly monitoring and reporting efforts.	Staff has removed legacy organochlorine chemicals (like DDT) from the MRP, since recent CMP follow-up studies have shown that they are not likely sources of toxicity. Staff will make use of data collected by DPR monitoring programs. Routine monitoring (monthly) does not include pesticides to minimize costs, and pesticides are only sampled during the second year of the program along with toxicity monitoring. Therefore, DPR data will provide important supplementation, but does not replace the monitoring staff proposes, because the MRP monitoring will be done concurrently with toxicity, giving us a way to link toxicity to probable cause.
Comment No. 87 from Arroyo Seco Vineyards. Letter No. 69, p.1. Economics	Many of your staff's requirements necessitate large capital expenditures in order to comply – such requirements need to be directed to the landowners (not the tenants). A landowner can capitalize such expenditure and amortize it in the rental agreement with numerous tenants over time, whereas a single tenant does not have that option.	Comment noted. See response to Letter 15 (Comment No. 623).
Comment No. 297 from Arroyo Seco Vineyards. Letter No. 69, p.1. Pesticides/Toxicity	Region 3's executive director, Roger Briggs, commented publicly that Region 3's surface water – according to the first 5 years of monitoring is more toxic than other regions within the state. Region 3 intentionally started with the 25 most toxic monitoring sites in the first year	It is true that the first year of the Cooperative monitoring program focused in two areas with major water quality problems. Staff reduced the program size for the first year because of the complexities associated with initiating, funding and managing a large monitoring program. However, as data has come in from

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	(2005), added 25 more sites spread throughout the region during the next year (2006); we intentionally looked for hotspots to monitor and have been working very diligently on improving the water quality. Your executive director's comments were very disingenuous and intended to play up to the environmental community, rather than working with the landowners, farmers and businessmen who are most concerned about the quality of land, air and water in our communities.	other areas, it is still clear that these two areas still have the biggest water quality problems. Monitoring sites are not located at small scale "hot spots", but are set up at the bottom of subwatersheds to sample all drainage to that point. Other studies, such as a recent one by the Department of Pesticide Regulation, also find pesticide concentrations and application rates to be among the highest in the State. A newly released State-wide toxicity report (http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/tox_rpt.pdf)also indicates that the Central Coast Region has severe toxicity problems compared to other areas. This report uses SWAMP and CCAMP data only (and will be updated in the future with CMP data). It shows 22 percent of all 109 sites sampled in the Central Coast Region as highly toxic. Region 7 (the Imperial Valley) has the next highest percentage of highly toxic sites, at 12.5 percent. Statewide, 7 percent of all monitored sites are highly toxic.
Comment No. 157 from County of Santa Cruz . Letter No. 70, p.1. Groundwater 78-2	The comment recommends the order not preclude the use of retention basins or holding ponds to capture and recharge stormwater. The comment argues that the strict application of paragraph 34 (regarding the use of retention basins) may preclude beneficial recharge and suggests that retention ponds can be managed to minimize nitrate or other contaminant loading.	The Water Board concurs with this comment and is open to management strategies that will both reduce/eliminate contaminant loading to groundwater and increase the amount of clean water recharging the underlying groundwater basin. Paragraph 34 of the draft Order does not preclude the use of retention basins, but merely requires that they be constructed and maintained such that they are protective of both surface water and groundwater quality. Also, see response to Letter 18 (Comment No. 152).
Comment No. 298 from County of Santa Cruz . Letter No. 70, p.1. Monitoring/Reporting	There is a requirement to complete stormwater sampling within 18 hours of a storm event. Given the extreme variability of water quality parameters during a storm event and the rapid improvement in water quality after peak flow, sampling within 18 hours would have limited utility in characterizing stormwater quality. It would be more appropriate to select a few key sites and use an	Staff acknowledges that sampling within 18 hours of an event will not provide water quality data occurring at the peak of the hydrograph. However, given the logistics of stormwater monitoring, and the expense of requiring all routine monitoring sites to be outfitted with auto-samplers, the Draft MRP provides a reasonable approach. We will still get wet-season data reflecting water quality during higher flow periods, when fields may still be

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	auto-sampler or frequent sampling to characterize the water quality throughout a storm event, or to require that sampling be completed within no more than 3 hours of peak flow.	draining and sediment and turbidity levels still reflect the recent event. Though we have considered the use of auto-samplers in the sampling design, we are interested in the quality of water throughout our agricultural areas, not at just a few key sites, so we have adopted the proposed approach.
Comment No. 202 from Form Letter - Amanda Wittstrom-Higgins, etc. Letter No. 71, p.2. Irrigation, Nutrient Management	Dischargers who do not cause tail water, as is the case for vineyards, should not be subject to receiving water monitoring.	Water Code Section 13269 requires that conditional waivers include a monitoring program to verify the adequacy and effectiveness of the waiver's conditions. The conditions of the proposed waiver require all dischargers to conduct receiving water monitoring by participating in a cooperative receiving water monitoring program or individually monitoring receiving water. Additionally, Tier 3 dischargers (those with greatest threat to water quality from most pollutant loading), must conduct individual discharge monitoring of irrigation runoff from their operation. If a Tier 3 discharger has no surface water discharge (no irrigation runoff), the discharger does not have to conduct individual discharge monitoring. See response to Letter 79 (Comment No. 503) regarding persons not discharging wastes to waters of the state.
Comment No. 299 from Form Letter - Amanda Wittstrom-Higgins, etc. Letter No. 71, p.2. Monitoring/Reporting	An exemption from additional monitoring and requirements should be available for farming practices and operations that are not contributing to water quality degradation.	See response to Letter 45 (Comment No. 283).
Comment No. 300 from Form Letter - Amanda Wittstrom-Higgins, etc. Letter No. 71, p.2. Monitoring/Reporting	There needs to be a mechanism for data submission in a non-electronic form for those farmers who do not use, or do not have, internet access.	Internet access with accompanying assistance will be provided at key locations throughout the Region. Also, see response to Letter 76 (Comment No. 205).
Comment No. 301 from Form Letter - Amanda Wittstrom-Higgins, etc.	The 2010 Section 303(d) list of impaired water bodies is referenced in the Ag Order. The reference needs to be	Comment noted and addressed in revisions to the Draft Order.

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Letter No. 71, p.2. Monitoring/Reporting 44-2	to a single list that is based upon the constituents, impairments the order is meant to address. A grower should be able to know clearly what list is referenced and be assured that the tier classification for their operation does not change within the term of the Order.	
Comment No. 302 from Form Letter - Amanda Wittstrom-Higgins, etc. Letter No. 71, p.2. Surface Water 44-3, 60-1	The November 2010 staff report starts with the statement that "discharges of waste associated with agricultural discharges (e.g., pesticides, sediment, nutrients) are a major cause of water pollution in the Central Coast region. The water quality impairments are well documented, severe, and widespread. Nearly all beneficial uses of water are impacted, and agricultural discharges continue to contribute to already significantly impaired water quality and impose certain risks and significant costs to public health, drinking water supplies, aquatic life, and valued water resources." This language is inflammatory, does not accurately represent the situation, and does not acknowledge that relatively few farmers contribute to water quality problems.	Staff does not know how many farmers contribute to this problem because the existing order does not have requirements for individual discharge monitoring. It is not staff's intention to be inflammatory, but it is important to state the severity of the problem. In the areas of most intensive agriculture (primarily the lower Salinas and Santa Maria areas) the Central Coast Region has perhaps the highest nitrate concentrations and levels of toxicity anywhere in the State. In a statewide study of four agricultural areas (Salinas, Sacramento, San Joaquin, and Imperial valleys), conducted by the Department of Pesticide Regulation, the Salinas study area had the highest percent of sites with pyrethroid pesticides detected (85 percent), the highest percent of sites that exceeded levels expected to be toxic (42 percent), and the highest rate (by three-fold) of active ingredients applied (113 lbs/acre) (Starner, 2006). Similarly, a recently released statewide toxicity (http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/tox_rpt.pdf)report found that the Central Coast had the highest percentage of sites sampled in the State that were classified as "highly toxic". Data from the Cooperative Monitoring Program (CMC) also indicate that discharges of waste associated with agriculture (e.g. pesticides, sediment, nutrients) are a major cause of water pollution in the Central Coast region. See statement from Darlene Din in Letter 77 (Comment No. 370).
Comment No. 203 from University of California, Davis. Letter No. 72, p.2.	Irrigation and nutrient management plans: The requirement to development and implement an INMP is contingent on the calculation of the crop nitrate loading	The irrigation water nitrate concentration value at which the rating "2" is given is based on the federal drinking water standard set at 45 mg/l of NO3-N, with the assumption that water with less than

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Irrigation, Nutrient Management	risk. For vegetable and strawberry growers who use sprinklers, at least for crop establishment (this includes the overwhelming majority of growers), the factor that triggers the INMP requirement comes down solely to nitrate concentration of the irrigation water. Water of40 PPM NO3- gives a moderate risk (and no INMP), while water at50 PPM triggers all the INMP requirements. This places too much emphasis on a factor that represents a small minority of potential N loading in the production of these crops. For example, a lettuce crop may receive an average of 160 lb/acre of fertilizer N, and 10 inches of irrigation water. At50 PPM NO3-, that water input represents only 25 lb N/acre. Modifying the nitrate loading risk index, perhaps by increasing the irrigation nitrate concentration at which the rating of '2' is given, would balance the index more appropriately.	45 mg/l of NO3-N has a low potential for increasing the nitrate concentration of any downstream receiving surface water body or groundwater body above 45 mg/l of NO3-N. However, staff will reevaluate the irrigation water nitrate concentration rating criterion. Staff considers and agrees that the type of crop grown is the most important factor to consider when assigning a risk for potential groundwater contamination. However, it cannot be considered the only factor. That is why the irrigation system type and the quality of the water used for irrigation have also been included as part of the criteria for assigning risk. To define the three categories of low, medium, and high risk, staff analyzed all the results and scenarios by the overall risk result, with the goal of placing the high risk crops in the overall high risk unit bracket. There are a few exceptions where a high risk crop could end up in a lower category: Example 1: a high risk crop is grown using drip irrigation during the entire growing season and the irrigation water nitrate concentration is less than 60 mg/l NO3 (or 13.3 mg/l NO3N). Example2: having sprinkler irrigation only for pre-irrigation and with a water nitrate concentration less than45 mg/l NO3 (or 10 mg/l NO3-N). At the other end of the scale, crops considered to be low risk, are placed in an overall low risk bracket, with a few exceptions: Example 3: dischargers growing low risk crops but using furrow irrigation and with a nitrate concentration in the irrigation water of more than 100 mg/l NO#3(or 22.2 mg/l NO3-N) will end up in the high risk category.
Comment No. 204 from University of California, Davis. Letter No. 72, p.2.	Regarding the irrigation and nutrient management plan (INMP) requirements, it is unclear what level of detail is required. As written it could be interpreted to require that irrigation and fertilization in each field be monitored,	The overall intent of the Tier 3 INMP requirement (and grower's responsibility) includes two key elements: account for nitrogen inputs (and outputs) and to improve efficiency in the use of irrigation water. These elements are are good indicators of

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Irrigation, Nutrient Management	evaluated and recorded. Such detail would overwhelm farm management. The requirement to conduct preplant soil nitrogen sampling (by this I assume you mean nitrate sampling) is problematic, because all local research to date has been predicated on pre-sidedress, not preplant, soil nitrate testing. As previously discussed, the requirement to monitor nitrate leaching to groundwater is technically difficult and fraught with uncertainty; reduction of N input to the production system, and documentation of improved irrigation efficiency, should be the focus of effectiveness evaluation.	effectiveness and pollution reduction.
Comment No. 303 from University of California, Davis. Letter No. 72, p.1. Monitoring/Reporting	The cost to individual growers is likely to be extreme, particularly if toxicity testing of runoff and testing of leachate nitrate is required. The degree of variability in pollutant content observed from one field or one irrigation event to another can be extreme, and unless a large number of events are monitored, the data may not reflect water quality impacts representative of the grower operation. This also raises the possibility of 'strategic' monitoring, in which irrigation events are chosen for monitoring based on conditions most likely to show good water quality. It is my opinion that individual discharge monitoring should be de-emphasized because the cost will be extreme, and the value of the data generated will be nebulous. The more valuable information regarding nitrate pollution potential will be annual N loading rate, which tier 2 and 3 growers are required to report.	Toxicity tests are necessary because there are many other sources of toxicity besides chlorpyrifos and diazinon. A recent follow-up study confirms that pyrethroids are the largest source of toxicity to sediment. Also, toxicity tests help assess impacts from chemical additivity and synergism (where one chemical enhances the toxic effect of another chemical). Individual discharge monitoring is limited to a subset of growers that fall into Tier 3. Staff acknowledges that variability in pollutant content can be extreme, which is why staff has proposed four samples per year from highest risk dischargers. The data will be used to help staff prioritize where major sources of concern are and take action accordingly, or conversely, to help growers show that the actions they are taking to improve water quality are having the desired outcome.
Comment No. 371 from Crop Production Services. Letter No. 73, p.2. Nutrient Management	The 4R nutrient stewardship framework allows growers to meet sustainability goals through the adoption of best management practices by using the Right Product and Right Rate at the Right Time and Right Place. The framework recognizes that what is right for one area may not work in another. Best Management Practices must be customized to address ecological and social	Comment noted. Also, see response to Letter 83 (Comment No. 224).

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	differences. It is also clear that practices must be implemented in all four areas to be effective. The 4R framework provides policy makers and researchers with a foundation they can use to sustainably improve performance through the development and implementation of best management practices.	
Comment No. 158 from University of California, Santa Cruz. Letter No. 75, p.2. Groundwater	The comment letter extensively discusses the nuances and potential benefits of managed aquifer recharge (MAR) and recommends the "Ag Order encourage the development of field-scale pilot studies that can provide information needed to assess the efficacy of MAR to augment water supply and improve water quality." No specific examples are provided of how the Ag Order should be revised to do this.	The Water Board concurs that recharge management is a significant water quantity and quality issue. The Order was edited to make it clear that managed aquifer recharge is allowable but does not specifically require growers to develop and implement groundwater/aquifer recharge studies. Dischargers must control their waste discharges and may use management strategies that will both reduce/eliminate contaminant loading to groundwater and increase the amount of clean water recharging the underlying groundwater basin. Recharge of cleaner agricultural return flows or reduced agricultural pumping both have the potential to contribute to improved "hydrologic and ecosystem function." Recharge area protection and watershed protection/restoration (i.e. protection/restoration of hydrologic and ecosystem functions) are two major and related priorities the Water Board is actively pursuing via region wide efforts such as the implementation of the Recycled Water Policy, stormwater program and Low Impact Development Initiative.
Comment No. 304 from University of California, Santa Cruz. Letter No. 75, p.1. Monitoring/Reporting	Please consider designing the Ag. Waiver so as to encourage the development of field-scale pilot studies that can provide information needed to assess the efficacy of Managed Aquifer Recharge (MAR) to augment water supply and improve water quality. Pilot and operational systems will need to rely on adaptive management strategies, applied flexibly based on local field conditions, to achieve maximum benefit. Studies will need to be completed site by site because hydrologic, soil, and other conditions are highly variable in space and time. (MAR has to do with stormwater	See response to Letter 75 (Comment No. 158).

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	capture and percolation)	
Comment No. 305 from University of California, Santa Cruz. Letter No. 75, p.1. Monitoring/Reporting	My final concern has to do with draft sampling, analysis, and reporting requirements as described in the Draft MRP. I have overseen and participated in several water sampling, measurement, and analysis projects, involving specially trained and supervised personnel, and a surprisingly high fraction of the samples and data collected through these projects is of poor quality. As a rule of thumb, I have found that generally 10-20 percent of data and samples collected are "bad" or otherwise inconsistent with the majority of data and samples, despite the best efforts to drive down the number of errors in practice…. It is not clear who will decide which data or samples are good or bad…. In addition, although the draft MRP includes requirements for development of a Quality Assurance Project Plan, and specific requirements for laboratory analytical methods, other aspects of sample collection and monitoring are likely to be highly variable in quality and their representative nature.	Staff agrees that data quality is of great concern, and staff has taken a number of measures to address this through the Board's online data checking tool that staff has used for receiving water data delivery. This tools checks for missing information, consistency in nomenclature, and other potential errors. It is also because of this concern that the Draft Order requires a sampling plan and QAPP, data to be collected by a qualified professional, and sent to a laboratory that is certified to U.S. EPA standards, and delivered in a standard format that requires submittal of associated quality assurance data.
Comment No. 88 from Precision Ag Consulting. Letter No. 76, p.1. Economics	Though staff indicates that economics are not necessarily a consideration in development and promulgation of the regulations regarding the order does the board realize that 43 percent of farmers in region 3 are small farmers with annual gross incomes in the $10,000 a year or less range and net income most likely in the $1,000 per year range	Comment noted.
Comment No. 89 from Precision Ag Consulting. Letter No. 76, p.1. Economics	Has the cost of compliance versus potential improvement in water quality for small farmers been evaluated	See response to Letter 40 (Comment No. 648).
Comment No. 90 from Precision Ag	Is there a good justification for not having a lower limit on	The justification is that small operations have the potential to

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Consulting. Letter No. 76, p.1. Economics	farms, either acreage or gross income, below which they are exempt from the order	discharge wastes and to impact beneficial uses. Exempting an operation could potentially result in avoidable impacts to water quality, and would be inconsistent with the Porter-Cologne Water Quality Control Act (Wat. Code Div. 7), which requires the Central Coast Water Board to regulate discharges of waste that could impact the quality of waters of the state.
Comment No. 91 from Precision Ag Consulting. Letter No. 76, p.1. Economics 27-1	If the cost of compliance will make it economically unjustifiable for small farmers to continue farming, it is very likely that larger farmers will take over those farmers. Large farms can do this because they can spread the fixed cost of compliance over more acres and it has a smaller impact on their bottom line. Does the board realize that this order will lead to an increase in the number of acres farmed by large farmers and decrease the number of small farms	The proposed Order creates 3 tiers intended to address risk to water quality and taking into account that low risk dischargers should have less stringent requirements.
Comment No. 431 from Precision Ag Consulting. Letter No. 76, p.4. General (Regulation conflicts)	20) Does the proposed ag order harmonize with other regulations for items such as food safety, farm labor health and air quality	Yes. See responses to Letter 79.
Comment No. 147 from Precision Ag Consulting. Letter No. 76, p.3. Groundwater	The introduction to the Ag Order indicates that thousands of people are or may be drinking water with polluted by nitrate. Does the incidence of methemoglobinemia on the central coast support this statement	No it does not. However, the Central Coast Water Board is required, in issuing a waiver of waste discharge requirements to require compliance with the Basin Plan, which includes protection of beneficial uses, such as the drinking water beneficial use. The information collected and evaluated by staff supports the conclusion that discharges of waste from agricultural activities have impacted the beneficial uses of drinking water supply in the Central Coast Region. The purpose of the Water Code as set forth in the Order is to eventually restore and maintain water quality to protect beneficial uses. In addition to methemoglobinemia, public health agencies have identified a growing number of additional potential adverse health affects (e.g., Parkinson's, cancer) that nitrate could be contributing to as discussed within the Order and there are currently no studies or

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		programs available to determine whether the portion of the population who are drinking water containing nitrate have higher incidences of these disorders/diseases. Moreover, it is currently uncertain how many people are drinking water containing nitrate. Based on the documented extent of nitrate impacts to groundwater, the number is likely significant.
Comment No. 141 from Precision Ag Consulting. Letter No. 76, p.4. Groundwater (Monitoring)	a)Why can farmers not collect their own groundwater quality samples using basic guidelines developed by the board b)Why should the board require the analysis and report of those constituents of groundwater quality that are not a concern for water quality The only constituents that are truly needed are nitrate, sodium and chloride	Please see our response to Commenter No.'s 21 (Comment No. 654) and 77 (Comment No. 122).
Comment No. 148 from Precision Ag Consulting. Letter No. 76, p.4. Groundwater	Is the board mindful of the fact that the quality of groundwater under a particular parcel may or may not be related to the overlying landowner's use of the land Impairments of groundwater quality from a particular parcel are based on both spatial and temporal factors over which the current farmer or landowner may have no influence or control.	Yes. Also, please see response to Letter 29 (Comment No. 127).
Comment No. 205 from Precision Ag Consulting. Letter No. 76, p.2. Implementation	Regarding the Notice of Intent requirement: It is stated that the information MUST be filed electronically, what if a farmer does not have access to an electronic means of filing the information	Operators may contact the Central Coast Water Board and make an appointment with one of the Ag program staff, who will take the information over the phone, complete and submit the NOI electronically, and mail a copy for signature and return to the Water Board.
Comment No. 206 from Precision Ag Consulting. Letter No. 76, p.2. Implementation	In the section on supplying the GPS coordinates of the farm, the instructions indicate that you are use the "centroid" of each ranch, how should the centroid be determined and what should a farmer do if they are unable to make that calculation	The interactive map is solely for the purpose of obtaining the latitude and longitude coordinates. To use the online tool, enter the ranch location information, or at least the city name in the space provided on the form, before clicking on the interactive map tool option. Once the map opens, the red mark/balloon can be dragged and placed on the center of the farmed land for

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		system to record those coordinates.
Comment No. 207 from Precision Ag Consulting. Letter No. 76, p.2. Implementation	On the farm maps that are required to be submitted, the maps are required to locate and provide the names of water bodies - what if the water bodies have no names	In all cases, the farmer must make a good faith effort to submit complete and accurate information. If waterbodies have no names, a name cannot be submitted. For "unnamed" waterbodies, such as blueline streams, swales, etc. it is acceptable to include the term "unnamed".
Comment No. 208 from Precision Ag Consulting. Letter No. 76, p.2. Implementation	If an entity, other than an individual, owns the property, how is that listed	The owner of a property may be an individual or a trustee (or other authorized legal representative). Those two options are included on the NOI form with space provided to include the actual name of the individual or trust.
Comment No. 209 from Precision Ag Consulting. Letter No. 76, p.2. Implementation	The NOI allows for signing up with Preservation Inc. for cooperative monitoring – it is currently known if they are going to be able to provide this service	Monitoring for the current Ag Order is conducted by Central Coast Preservation Inc. However, the monitoring option is for cooperative monitoring and that entity is not specified. Any third party must be approved by the Executive Officer. That entity then conducts water quality monitoring per the Order and MRP. Preservation Inc. is an institution developed by growers for growers. If this institution ceases to exist or cannot provide the services you require, growers may form other group efforts to meet receiving water monitoring requirements, or may do so as individuals. The success of any group depends upon the participation of its members. We can not force participation in any group, but we strongly encourage growers to support CMP or a similar institution for the benefit of all.
Comment No. 210 from Precision Ag Consulting. Letter No. 76, p.2. Implementation	The NOI form asks if the farmer is producing a commercial agricultural commodity. Some commodities take a number of years from planting to the first harvest. Are farms who are not currently selling a product exempt from the order until they are actually selling a commodity	The Draft Order specifies that Prior to any discharge or commencement of activities that may cause a discharge, including land preparation prior to crop production, any Discharger proposing to control or own a new operation that has the potential to discharge waste that could directly or indirectly reach waters of the State and affect the quality of any surface water or groundwater must submit an NOI.
Comment No. 211 from Precision	11) Regarding water quality education hours:	Staff considers education valuable for the purpose of assisting

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Ag Consulting. Letter No. 76, p.3. Implementation (Education)	If you already have the required 15 hours, will you need an additional 15 hours? If you do not have the required 15 hours, has staff determined when and how those education classes/events will be held? Is there a time frame for acquiring the 15 hours? Has a curriculum for the hours been developed? How is compliance with this requirement going to be monitored? Are there adequate staff resources to do the monitoring? What happens if a farmer is out of compliance with this requirement? Who will offer the educational hours? Have they been contacted and are they willing to do this?	growers with appropriate implementation that will reduce their pollution loading and improve water quality. However, Staff does not consider education an important action to track or enforce and has removed the education requirements from the revised Draft Order. Also, see response to Letter 2 (Comment No. 658).
Comment No. 212 from Precision Ag Consulting. Letter No. 76, p.3. Implementation (Farm Plan)	15) Regarding the Farm Plan requirement: A farm plan is required. What are the necessary elements of a farm plan	As per the Draft Order, Dischargers must develop and implement a farm water quality management plan (Farm Plan), which is updated annually. Elements of the Farm Plan include irrigation management, pesticide management, nutrient management, salinity management, sediment and erosion control, and aquatic habitat protection. Farm Plans also contain a schedule for implementation of practices and an evaluation of progress in achieving water quality improvement.
Comment No. 213 from Precision Ag Consulting. Letter No. 76, p.3.	Is there a model farm plan upon which farmers can pattern their farm plans	The Water Board does not have a “model farm plan”. However, the University of California system developed the Farm Water

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Implementation (Farm Plan)		Quality Short Course (accredited by the Water Board for 15 hours of water quality education) included a Farm Water Quality Plan. The template for that Farm Plan is still available free at the following UC website: http://ucanr.org/freepubs/docs/8332.pdf.
Comment No. 214 from Precision Ag Consulting. Letter No. 76, p.3. Implementation (Farm Plan)	Farm plans may include trade secret or proprietary information regarding farming operations. Keeping in mind that farming is a highly competitive enterprise and the release of information in farm plans to the general public, and more especially to a farms competitors, may endanger the future viability of individual farms, what steps will be implemented to insure confidentiality of the information in a farm plan	See Response to Letter 11 (Comment No. 172). The Draft Order has been clarified to address this issue.
Comment No. 215 from Precision Ag Consulting. Letter No. 76, p.4. Implementation, Nutrient Management	Regarding nutrient budgets: the order requires that nutrient budgets be prepared for various crops depending on a farmers tier designation. Is the board aware that because of the limitation of nutrient uptake efficiency not equaling 100 percent – the ratio of Nitrogen applied to Nitrogen removed cannot equal one unless a nutrient deficiency and potential reductions in both yield and quality occurs	The goal of the program is to protect and/or improve water quality. Staff expects that during year 1, after the adoption of the order, the farming industry calculates the amounts of N needed to be applied on each crop type (or Typical uptake values) to achieve the potential yields. If the industry demonstrates there are inefficiencies in the crop-nutrient system that are inevitable and don't contribute to impair the groundwater systems, such as the immobilization of N into organic matter , then those amounts of N should be included in the total amount needed to produce the crop. However, the idea is that the certifier or fertilizer specialist and grower improve the N efficiency and availability from all sources as part of the implementation of the INMP. One could argue that inefficient irrigation systems (e.g., low DU and/or wrong scheduling) would require higher N applications due to losses, when in reality the inefficiencies are only another reason why there is nitrate leaching to groundwater. Therefore, Water Board staff has not considered all potential losses and grower inefficiencies but rather expecting those inefficiencies to be improved.

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		Also, please see response to Letter 76 (Comment No. 216).
Comment No. 216 from Precision Ag Consulting. Letter No. 76, p.4. Implementation, Nutrient Management	If a farm grows multiple crops both spatially and temporally on a particular parcel, is a nutrient budget required for each incidences of planting Does staff have time to review the potentially 10,000's of nutrient budgets it is requesting.	No, a nutrient budget is not required for each incidences of planting. The INMP budget is an annual estimation of the amounts of N applied to the parcel for all the crops grown in 1 year, and compared to the total amounts of N needed by all the crops grown in that year. Water Board staff will release a document with the guidelines for implementing an Irrigation and Nutrient Management plan that satisfies Water Board staff expectations, which will include calculations and all information/recordkeeping needed. The nutrient budget (Irrigation and Nutrient Management Plan) requirement currently applies only to a subset (based on a grower's determined nitrate loading risk factor) of Tier 3 growers. By October 1, 2014 and annually thereafter, Tier 2 and Tier 3 Dischargers with High Nitrate Loading Risk must report total nitrogen applied per crop, per acre to each farm/ranch or nitrate loading risk unit in the Annual Compliance Document. Currently we have approximately 100-200 Tier 3 growers.
Comment No. 308 from Precision Ag Consulting. Letter No. 76, p.2. Monitoring/Reporting	It is stated that the information MUST be filed electronically, what if a farmer does not have access to an electronic means of filing the information	Access to electronic filing will be provided at several locations around the Region. Also, see response to Letter 79 (Comment No. 205).
Comment No. 307 from Precision Ag Consulting. Letter No. 76, p.3. Monitoring/Reporting	Has a realistic estimate of the amount of information that can be processed by staff been done	Staff is developing electronic tools for data delivery to allow for maximal efficiency in data review and management. See response to Letter 40 (Comment No. 77).
Comment No. 306 from Precision Ag Consulting. Letter No. 76, p.1. Surface Water	It appears that there is more than one 303d list will the various lists be consolidated within the order so that there is less confusion regarding the aspect of the proposed order	Comment noted and addressed in revisions to the Order.

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Comment No. 122 from Margarita Vineyards LLC. Letter No. 77, p.2. Groundwater (Monitoring) 21-3, 40-2, 43-2, 45-2, 51-1, 111-1	a) Groundwater Well Reporting: An exemption from additional monitoring and requirements should be available for farming practices and operations that are not contributing to water quality degradation. The requirements for well water monitoring go beyond what is necessary to carry out the order to address pesticides, sediment, and nutrients associated with agricultural discharges. b) How does monitoring depth to groundwater address these issues. It may be impossible to measure depth to groundwater due to clearances in the well without pulling the pump and adding a sounding tube. This could add substantial cost for compliance without any justification for this requirement. Depth to groundwater monitoring should be eliminated from the order. c) Any well testing should be associated specifically to the constituents in question. Additionally, this information should not be submitted to the Control Board for public record. Particularly, if you are not contributing to the concerns meant to be addressed through this order. The groundwater reporting requirements are over-burdensome and unnecessary. d) If groundwater testing is deemed legal and necessary under this Order, we support the Ag Alternative approach to targeting water well testing to the constituents in question by limiting testing to one primary well; the constituents for testing only nitrates, TDS or EC, and pH; and keeping results on-farm in the Farm Plan to maintain proprietary information.	a) The tiering system allows low impact operations to have minimal additional monitoring requirements but still provides staff information to help verify that these minimal requirements are appropriate. Additionally, any discharger may submit a request to the Executive Officer to approve transfer to a lower tier that must provide information to demonstrate they meet the criteria of the lower tier. b) The depth to groundwater requirement, along with well screen interval data (information not known for many wells) provides information to help identify the aquifer zone the well produces water from, which in turn provides context for the nitrate results. There are options to tape readings of water levels (e.g., sonic water level devices, wellhead pressure-flow relationships for a given pump) that provide flexibility to reduce costs. c-d) Please see response to Letter 21 (Comment No. 654) and Letter 77 (Comment No. 122). Note that you are required to sample only your main agricultural production well.
Comment No. 217 from Margarita Vineyards LLC. Letter No. 77, p.2.	6) NOI Requirement: The requirement to submit an updated NOI before the updated Ag Order is adopted is	Please see response to Letter 40 (Comment No. 185).

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Implementation 44-3	problematic in that there is no regulatory mechanism to enforce this. Also, there needs to be a mechanism for data submission in a non-electronic form for those farmers who do not use, or do not have, internet access.	
Comment No. 311 from Margarita Vineyards LLC. Letter No. 77, p.1. Monitoring/Reporting	Dischargers who do not cause tail water, as is the case for vineyards, should not be subject to receiving water monitoring.	See response to Letter 40 (Comment No. 277).
Comment No. 432 from Resource Conservation District- Santa Cruz and Monterey Co. Letter No. 78, p.1. Implementation (Adaptive management)	First, we would like to highlight the importance of an adaptive management approach to solving water quality pollution problems on agricultural lands. Adaptive management entails the application of scientific methodology to management, including design, planning, implementation and evaluation. (1) Through iterative and well defined cycles of revision, it allows us to improve our effectiveness in implementing environmental management practices. Of special note, this approach continually seeks "to understand the impact of incomplete knowledge." (2) Adaptive management is especially important given the uniquely diverse and dynamic nature of the working landscapes of Central Coast agriculture. Research literature is frequently specific to very different conditions than those we face. We need the support of a regulatory policy that is flexible enough to allow for a wide variety of land management practices and treatments to adapt as new research emerges and on-the--ground trials and observations enable us to refine our approach to agricultural water quality pollution	The proposed Order, like the 2004 Ag Order, requires growers to develop and implement management practices to control or treat discharges of waste to protect waters of the state for their beneficial uses and prevent discharges exceeding water quality standards. Adaptive management is consistent with the existing and proposed Order.
Comment No. 433 from Resource Conservation District- Santa Cruz and Monterey Co. Letter No. 78, p.2.	Third, we would like to urge the Board to recognize the inadequate supply of technical assistance providers currently available to support growers in implementation of the waiver's requirements. Along with many other	Water Board staff has been actively outreaching to the private sector in an attempt to estimate their "readiness" and capabilities in providing technical assistance to growers on the Central Coast. Staff is confident that the private sector will be available and

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Implementation (Tech service providers) 37-1, 78-2	agencies that provide technical assistance, RCDs have seen significant reductions in staff levels and decreased availability of up-to□date staff training in the wake of multiple economic setbacks in recent years. Such shortages are a source of concern to us as we anticipate growing demand for technical support to growers seeking to make improvements to their management of water quality. Consultants in the private sector (CCA's and PCA's, etc.) are rarely trained to deal With the range of 'output'--□related (as opposed to input) issues that growers will need to address under the proposed revised waiver, and there will be a necessary lag--□ time as private sector supply catches up with demand for services beyond the levels RCDs and NRCS can provide. We ask the Regional Board to track and respond to the impact this reality will have on growers' ability to meet the requirements of the waiver, particularly in regards to the timelines proposed.	capable of supplying the assistance that might be required. The proposed requirement for a nutrient management plan may be certified by a Professional Soil Scientist, Professional Agronomist, or Crop Advisor certified by the American Society of Agronomy The requires also allows for a "similar professional or third-party" approved by the Executive Officer. For a listing of currently certified crops advisors, the American Society of Agronomy has a website (https://www.certifiedcropadviser.org/) where the user can click on "Find a CCA" in the column on right side of the page. We expect that more candidates seeking to assist agriculture will complete the process to become a certified as a crop advisor in the coming months/years. Currently with 485 registered CCAs working in CA, Staff believes there will be enough fertilizer and nutrient professionals to supply the demand of services of central coast tier 3 growers farming high risk units.
Comment No. 3 from California Farm Bureau Federation. Letter No. 79, p.19. Aquatic Habitat/Buffers	The provisions prevent waterway maintenance activities for flood control.	The proposed Order is not intended to prevent waterway maintenance activities for flood control. However, as noted in the proposed Order, persons may be required to obtain permits from other agencies, such as the Department of Fish and Game or local agencies when disturbing waterways.
Comment No. 4 from California Farm Bureau Federation. Letter No. 79, p.19. Aquatic Habitat/Buffers	The provisions prohibit growers from complying with buyer specifications that may be necessary for food safety reasons.	Regional Board staff is not aware of any written food safety requirements that conflict with the Water Quality Buffer Plan requirements. Staff's understanding is that there may be interpretation of verbal suggestions or direction that lead to removal of vegetation. We also understand that there is limited, if any, scientific evidence supporting assertion that removal of vegetation makes our food supply safer. There is a known and well documented benefit to water quality and pathogen filtration from the maintenance of riparian and wetland vegetation. Regional Board staff has participated in technical and interagency discussions about and supports the co-management of water

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		quality protection and food safety protection. Also, see Attachment A of Draft Order No. R3-2011-0006, Findings #101 and #102, and #103, and Appendix D and G to the Staff Report.
Comment No. 5 from California Farm Bureau Federation. Letter No. 79, p.19. Aquatic Habitat/Buffers	The provisions unlawfully require federal permits under the Clean Water Act for activities that are specifically exempt.	The 2011 Draft Order does not unlawfully require federal permits under the Clean Water Act. The 2011 Draft Order states that dischargers must obtain federal permits where such permits are required. The Water Board may not waive the requirement to obtain federal permits, such as NPDES permits or dredge and fill permits. The 2011 Draft Order only waives the requirement to obtain state-only permits, which are called "waste discharge requirements." The 2011 Draft Order does not attempt to regulate land use; it includes conditions intended to protect waters of the state. Dischargers are required to implement management practices to assure compliance with the Water Code, which could result in changes in current practices. There is no right to discharge waste to waters of the State. (Cal. Wat. Code 13263, subd. (g).) It is up to individual farmers to assure that they comply with the Clean Water Act where it is applicable. Compliance with the 2011 Draft Order does not constitute compliance with the Clean Water Act section 404 and 401 requirements. Although some farming activities are exempt from the requirement to obtain a federal section 404 permit, activities that convert a wetland which has not been used for farming or forestry into such uses are not considered part of an established operation, and are not exempt from Section 404 regulation. The conversion of previously unfarmed land to agricultural land must be permitted by a Clean Water Act 404 permit and associated state water quality certification under Clean Water Act section 401.
Comment No. 512 from California Farm Bureau Federation. Letter No. 79, p.19.	The aquatic habitat, riparian buffer, and vegetative cover provisions within the 2011 Draft Order are unlawful and impractical for many reasons. The provisions result in the unlawful taking of private property, unlawfully dictate	See response to Letter 15 (Comment No. 628). The proposed Order does not impede the authority of the Department of Fish and Game (DFG). See Appendix D of the

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Aquatic Habitat/Buffers, General (Authority) 69-1	the manner of compliance, and attempt to regulate land use. The provisions impede the authority of the Department of Fish and Game.	Staff Report. The Water Quality Buffer Plan requirements complement DFG authority with appropriate Water Board authority to protect water quality of streams, lakes, wetlands and other waterbodies of the state from the affects of waste discharges.
Comment No. 514 from California Farm Bureau Federation. Letter No. 79, p.20. Economics	The 2011 Draft Order fails to evaluate economic costs. Water Code section mandates that prior to implementation of any agricultural water quality control program, an estimate of the total cost of such program, together with an identification of potential sources of financing, shall be indicated in any regional water quality control plan. (Wat. Code § 13141.) Before the Regional Board can impose waste discharge requirements it must consider various factors, including economic considerations. (Wat. Code § 13241.) The 2011 Draft Order will increase costs. The economic analysis prepared by the staff is flawed and does not take into account actual costs that will be imposed upon agriculture due to the 2011 Draft Order.	Water Code section 13141 does not require that the Water Board adopt a Basin Plan prior to regulating discharges of waste to waters of the state from agricultural discharges. The Staff Report is consistent with Water Code section 13141 because it includes an extremely detailed analysis of a range of costs to implement different actions that would result in compliance with the 2011 Draft Order and identifies potential sources of financing. See Appendix F to Staff Report. Also, see response to Letter 79 (CEQA Comment No. 497 in Attachment A to the SEIR in Appendix H) and Letter 40 (Comment No. 648). The proposed Order would not require implementing the different methods. Dischargers must control discharges of waste in any lawful manner.
Comment No. 503 from California Farm Bureau Federation. Letter No. 79, p.14. General (No Discharge of waste)	The 2011 Draft Order inappropriately presumes that all irrigated agriculture creates a discharge of waste. The Regional Board does not have unfettered regulatory authority to regulate all agricultural practices, especially those practices that do not create such discharges.	Water Code section 13260 requires any person who discharges or proposes to discharge waste that could impact the waters of the state (includes surface and groundwater) to submit a report of waste discharge requirements and those persons may not discharge unless they comply with Water Code section 13264. Water Code section 13269 authorizes the Regional Board to issue a waiver of waste discharge requirements and of the requirement to submit a report of waste discharge. The Regional Board has issued a waiver of waste discharge requirements for discharges from irrigated lands and is considering a renewal of that waiver. Persons who discharge may comply with the Water Code by either choosing to submit a notice of intent to be bound by the waiver or to submit a separate report of waste discharge to

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		obtain individual waste discharge requirements. It is the duty of the discharger. If the person does not discharge waste that could affect the quality of the waters of the state, the person is not required to comply with the Water Code. The staff has proposed a revision to the 2011 Draft Order to provide persons a method to demonstrate that they do not discharge. If a person fails to comply with the Water Code (joining the waiver or submitting a separate report of waste discharge) and is a discharger, the person could be subject to enforcement.
Comment No. 505 from California Farm Bureau Federation. Letter No. 79, p.15. General (Water Code section 13267) 15-13	The monitoring and reporting provisions exceed the Regional Board's authority under Water Code section 13267. The 2011 Draft Order does not provide information showing that the "burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefit to be obtained from the reports." The 2011 Draft Order does not provide each person with a written explanation with regard to the need for the reports and the evidence that supports requiring the reports. Although various monitoring reports and technical reports are referenced in the 2011 Draft Order and accompanying appendices, no nexus as to the burden, costs, need, or benefits is found. Furthermore, no concrete evidence is provided that supports requiring farmers to provide such reports. Mere unsupported assertions that a need or nexus exists fail to validate a Section 13267 request. Thus, as drafted, the provisions requiring monitoring reports and technical reports exceed, in whole or in part, the Regional Board's statutory authority and are invalid.	Water Code section 13269 requires that any waiver of waste discharge requirements include individual, group, or watershed-based monitoring. "Monitoring requirements shall be designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver's conditions." The Regional Board may waive the monitoring requirements for discharges that it determines do not pose a significant threat to water quality. (Wat. Code §13269, subd. (a)(2).) Thus, pursuant to Water Code section 13269(a)(2), the Regional Board is required to impose monitoring requirements unless waived. Section 13269 provides the basis for imposing monitoring requirements. The 2011 Draft Order tiers monitoring requirements based on the relative threat to water quality, which could change as new information is collected. The 2004 Ag Order and the 2011 Draft Order also requires submittal of reports pursuant to Water Code section 13267. Pursuant to that section the Water Board "may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports

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		which the regional board requires." (Cal. Wat. Code §13267, subd. (b)(1).) The Staff Report provides substantial documentation that irrigated agricultural discharges waste or at a minimum that such agricultural dischargers are "suspected" of discharging waste where it could affect the quality of the waters of the state. As explained in great detail in the Staff Report, the technical and monitoring reports are necessary to assure compliance with the Water Code, the Basin Plan, the State Water Board Non-Point Source Policy, and other requirements. If a discharger or group of dischargers would prefer an individual order the person or group may apply for an individual waiver or waste discharge requirements. Also, see response to Letter 83 (Comment No. 322).
Comment No. 506 from California Farm Bureau Federation. Letter No. 79, p.15. General (Manner of Compliance, Authority)	The Regional Board does not have the authority to mandate or dictate specific management and business practices undertaken by a landowner to reach the applicable discharge goal. (Cal. Wat. Code § 13360(a).) Numerous places within the 2011 Draft Order specific types of management practices are mandated, such as riparian buffers, mitigation measures, management practices to control erosion, including maintaining crop residue or vegetative cover.	Water Code section 13360 restricts the Regional Board from specifying the manner of compliance with an Order. Specifically, the Regional Board may not specify the "design" or "particular manner in which compliance may be had." (Cal. Wat. Code, § 13360.) The 2011 Draft Order is consistent with Water Code section 13360. The 2011 Draft Order sets forth the standard to be met, but dischargers may meet it in the manner they choose. For example, Order section 67 requires dischargers to protect beneficial uses of aquatic habitat by several methods that give the dischargers discretion; section 73 requires a farm management plan showing methods to control erosion and comply with water quality standards; section 92 requires Tier 3 dischargers to submit a water quality buffer plan or other alternative to protect impaired water bodies from discharges of waste. All of these conditions of the order implement a Basin Plan requirement and provide alternatives for compliance. See, e.g., *Tahoe Sierra Preservation Council v. State Water Resources Control Board* (1989) 210 Cal.App.3d 1421, 1438), in which the Third Appellate District upheld a water quality control plan for the Lake Tahoe basin that placed impervious surface

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		coverage limitations on land surrounding the lake.
Comment No. 510 from California Farm Bureau Federation. Letter No. 79, p.18. General (Authority)	The 2011 Draft Order is internally inconsistent, unclear, and overly expansive. It exceeds the Regional Board's authority and contains significant and prescriptive requirements that gravely impact growers and agriculture in the Central Coast. The monitoring should focus on agricultural wells, not private domestic wells which are under the authority of public health departments and county and local municipalities.	The Regional Board has very broad authority and responsibility to regulate discharges of waste to waters of the state, including surface and groundwater, and to require monitoring. As discussed in the Staff Report, Appendix G, Section 2.1, many private municipal wells within the Central Coast Region are polluted with nitrate that exceeds drinking water standards. The presence of nitrate pollution is frequently the result of agricultural activities. It is therefore reasonable to require monitoring of domestic wells consistent with the monitoring requirements set forth in Water Code section 13269 and 13267. The Regional Board's authority to require monitoring is not superseded by the public health departments' and local agencies' authority to regulate drinking water supply.
Comment No. 511 from California Farm Bureau Federation. Letter No. 79, p.18. General (Authority, Pesticides) 83-9	The discharge prohibitions within the 2011 Draft Order are unlawful and exceed the Regional Board's authority. The Regional Board cannot adopt a prohibition in a waiver under Water Code section 13269. The Regional Board does not have authority to regulate pesticides. The California Legislature has established a comprehensive body of law to control every aspect of pesticide sales and use and has deemed the California Department of Pesticide Regulation ("DPR") the entity with authority [sic] protect the public health and environment by regulating pesticide sales and use and by fostering reduced-risk pest management. (Food & Agr. Code, §§ 11454, 11454.1, 12981.)" The Food and Agriculture Code establishes a comprehensive program, including proper use to protect public health and safety and the environment. The Legislator's intent was to have state regulation of pesticides be conducted by DPR, not the Regional Boards.	Water Code section 13269 requires any waiver of waste discharge requirements to be conditional. The use of prohibitions is a type of condition, and it is appropriate to include prohibitions in waivers of waste discharge requirements. Waivers must be consistent with applicable water quality control plans and must be in the public interest. The prohibitions contained in the 2011 Draft Order are appropriate to assure consistency with the applicable water quality control plans and are in the public interest, given the water quality condition of many of the waters of the state within the Region. In response to comments several of the prohibitions have been removed and placed as general conditions in the Order, rather than prohibitions. See also response to Letter 79 (CEQA Comment No. 502 in Attachment A to the SEIR in Appendix H) regarding the Water Board's authority to regulate the discharge of pesticides.
Comment No. 513 from California	Discharges from agriculture must be treated as a non-	The Regional Board is issuing a waiver of waste discharge

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Farm Bureau Federation. Letter No. 79, p.20. General	point source, not a point source. The Regional Board may regulate only when there has been a discharge to waters of the state and discharge point is the edge of the field, not on the field.	requirements for discharges of waste from irrigated agricultural lands, which are generally considered nonpoint sources. The Regional Board is not issuing an NPDES permit, which would apply to point sources. This is consistent with the State's Nonpoint Source Policy.
Comment No. 665 from California Farm Bureau Federation. Letter No. 79, p.21. General (Education)	The Agriculture Alternative Conditional Waiver represents a fair, reasonable, and legally sound approach to improving water quality while maintaining agricultural viability throughout the Region. The Agriculture Alternative Conditional Waiver requires growers to complete 5 hours of Farm Water Quality Education.	See response to Letter 2 (Comment No. 658) from the CA Farm Bureau Federation.
Comment No. 435 from California Farm Bureau Federation. Letter No. 79, p.16. Implementation (Require certain management practices)	Under the 2011 Draft Order, certain specific management practices are required, such as, but not limited to, riparian habitat buffers of at least 30 feet, vegetation within the buffer zone, mitigation measures to lessen the impact of the riparian habitat buffers, as well as management practices to control erosion and sediment, including maintaining crop residue or vegetative cover on the soil. However, the Regional Board has no authority to mandate or require the use of integrated pest management by individual growers or the use of specific types of crop covers. Therefore, these provisions should not be included within the conditional waiver.	For clarification, the Regional Board does not neither mandate the implementation of an integrated pest management program nor mandate the use of specific crop covers in any provisions included in the November Draft Ag Order. See also response to Letter 79 (Comment No. 506).
Comment No. 436 from California Farm Bureau Federation. Letter No. 79, p.16. Implementation (Timelines)	The time schedule for achieving compliance with water quality standards and milestones is improper and unrealistic. The 2011 Draft Order states: "General time schedules for key compliance dates and milestones related to Order Conditions are identified in Table 4 (All Dischargers) and Table 5 (Tier 2 and Tier 3 Dischargers). *Dischargers must achieve compliance with requirements by dates specified*.". The italicized	See response to Letter 79 (Comment No. 491).

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	statement requires all dischargers to meet all water quality standards within the applicable time frame (two years for pesticides and toxicity, three years for sediment and turbidity, and four years for nutrients and salts.) If a grower does not meet the water quality standard in the applicable time frame, the grower will be in violation of the conditional waiver even if the grower is making substantial progress toward compliance. Certain management practices, such as collective treatment systems that growers are encouraged to implement may take time to construct and put into use. Thus, a grower utilizing such management practices may not meet the limited time frame outlined above but may be making substantial progress toward compliance. A grower should not be penalized for complying with the intent of the Order even if the applicable water quality standard is not met in the time frame listed, as the time frames are arbitrary and unrealistic.	
Comment No. 439 from California Farm Bureau Federation. Letter No. 79, p.17. Implementation (Nitrate Hazard Index) 10-5, 13-1, 15-8, 33-2, 37-1, 46-2, 59-2, 64-4, 65-2, 70-2, 82-3, 83-22	A large portion of the requirements contained within the 2011 Staff Draft Order are based on the Nitrate Hazard Index ("NHI") developed by University of California, Riverside. However, upon review of Staff's Nitrate Loading Risk Factor Criteria (Draft Order, Table 2, p. 33), the NHI was not used. The University of California, Riverside Nitrate Hazard Index utilizes various factors in order to calculate the NHI, including crop type, irrigation, and soil type. The "Nitrate Hazard Index" as outlined in the 2011 Draft Order, rather, attempts to utilize only bits and pieces of the actual index and incorporates other factors, such as nitrates in groundwater. Such additions (irrigation water nitrate concentration rating) and deletions (soil type) manipulate the index as well as over-simplifying the index, making its value questionable. Given that Staff's revised NHI is not based on sound	<u>UC Nitrate Index</u> The UC Center for Water Resources and UC Riverside Nitrate Hazard Risk Index referenced are one and the same. Water Board staff initially considered adopting and using the "Nitrate Groundwater Pollution Hazard Index" developed by the University of California Riverside (see http://www.lib.berkeley.edu/WRCA/WRC/wqp_hazard.html) wherein soil types are considered, but staff decided, instead, to use the UC Nitrate Hazard Risk Index as a basis, modifying if for applicability to the Central Coast farming and groundwater impairment conditions. <u>Factors evaluated</u> Staff evaluated many factors when considering the risk that a discharger poses to contaminating groundwater, including: a) management, such as fertilizers and total N applications, timing

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	science or peer reviewed, it should not be used to determine the Nitrate Loading Risk Factor Criteria, a fundamental component of the 2011 Draft Order.	and location of application, type of fertilizer applied, use of fertigation, irrigation system type and irrigation system efficiency, well casing; b) weather, including rain events duration and frequency, temperature, hours of sunlight; c) geological, such as soil type, geological formations, permeable and impermeable layers and depths, drain patterns, depth to groundwater, geology within 100 ft of each well in production, vadose zone characteristics; d) biological, such as crop type and its ability to uptake N, root zone depth, harvested portion of the plant, N concentration in plant tissues and harvested part; and e) local conditions, such as the nitrate concentration in groundwater, slope, soil infiltration rate and soil permeability, tillage depth and the use of deep ripping, water and soil pH causing infiltration problems. These factors are also considered in many studies when determining risk (e.g. Babiker at al, 2004; Brown, 2003; Elnagheeb, 1993; Kerr, 1987; Napier, 1993). <u>Staff criteria</u> Staff decided to consider and use the most important "external" factors that bring or pose a risk for contaminating groundwater when placed over any type of farming land, regardless of the local land and soil conditions. The relative risk is calculated based on *crop type* as the most important factor, followed by the *irrigation system type*, and lastly is the *nitrate concentration* in the irrigation water. The criteria was minimized to a minimum of three (3) external factors, instead of using others such as soil type, groundwater depth, soil hydraulic conductivity, and many other LOCAL FACTORS, for the following reasons: a- For simplicity, because adding more parameters it would have made the calculation very complex, b- The assessment of the risk must be defined by the discharger themselves, and c- Because using more parameters in the criteria would have

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		taken away the ability for the grower and/or fertilizer specialist to analyze "local conditions" and to reduce the unit relative risk based on the characteristics of the soil, hydraulics, groundwater depth, and any other local factors. Each of the three factors has indexes, which must be multiplied in a similar fashion for the assessment of the Nitrate Groundwater Pollution Hazard Index developed by UCCE. The three factors are: (1) rating for crops (developed by UCCE), (2) rating for irrigation system type (developed by UCCE and customized for the Central Coast Region), and (3) rating for irrigation water nitrate concentration (developed the Central Coast Region staff). Factor 2, or Irrigation system type, was modified to combine furrow systems with sprinkler irrigation — at any given time during the growing season — into the same category, and added a category that considers pre-irrigation as a lower threat. Based on comments received, staff will evaluate the possibility of making changes to the irrigation system type rating to include another category (fifth) between rating 3 and 4. Due to the levels of nitrates contamination in Central Coast groundwater, considering levels of nitrates in source water is an important factor in dealing with the groundwater nitrate pollution problem. Factor 3, or the nitrate concentration in the irrigation water, was therefore included in the criteria. Staff considers that the use of water with high levels of nitrate poses a higher risk for contaminating surface and groundwater, if not managed properly, than using water with lower levels of nitrate concentration. These 3 factors help the discharger identify their relative risk to groundwater contamination and thus assess the need for immediate corrective measures and actions. As with the UC factors, the hazard index increases with increasing hazard index

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		number. The UC index ranges from 1 to 80 and is then divided into 2 categories. Between 1 to 20 are those units that pose minor concerns, but above 20 are units which should be paid special attention. Staff's overall nitrate loading risk factors differ and values could range from 1 to 69. Staff partitioned the overall risk factors into 3 categories: sites with overall factors from 1-10 are considered low risk, 10-15 are considered medium risk, and over 15 are considered high risk. <u>Soils criteria omission</u> Staff's criteria for assigning risk for groundwater contamination does not include a soil factor (as well as geology, groundwater/vadose zone movement) because the use of soil Series in the criteria would be too difficult when determining the risk from each farming unit, or irrigated blocks, because the blocks or farming units are not divided based on different soil Series/types. Soil type has been not included in the criteria for the following reasons: a- It would make the calculations and compliance tremendously complex; one same unit/block could have many different soil types, resulting in more than one risk level in the same unit/block. If that is the case, the dischargers would not be able to keep records on the amounts of N applied per unit, b- It would pose a higher burden on the dischargers in calculating the relative risk, considering the complexities in the distribution of the soil Series, c- In reality, the same soil Series has a different inherent risk for contaminating groundwater when it is located on a slope than when it is on flat land, d- Some soils and land have been modified for farming purposes. The previously evaluated and reported conditions of the soil Series might not correspond to the current state and potential risk.

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		Sandy soils and clay soils Staff agrees that there is a higher risk or potential for the discharge of nitrates to groundwater from sandy soil than clay soils. Staff also believes that a farming unit relative risk for contaminating groundwater is based primarily on the crop type, secondarily on the irrigation system type and lastly, on the nitrate concentration in the irrigation water. A farming unit would present the same relative risk regardless of the soil type. For example: the risk from a unit with a low risk crop, under drip irrigation, and using water with low nitrate concentration would not change when located on a sandy soil Series or on a heavy soil Series. The actual risk could be characterized based on the evaluation of soil type, farming practices, and local conditions, which growers and operators can do and use as evidence for lowering the farming units risk category. Staff position Many researchers have not found significant denitrification in water that percolates below the root zone (e.g. Onsoy et al., 2005). Therefore, staff's position is that nitrate loading below the root zone is a potential threat to groundwater, regardless of how long it takes to travel to the water table. Note that nutrients may enter the groundwater irrespective of soil type or geology via farming practices such as fertigation or leaky well seals, if proper backflow prevention devices are not installed. Lowering the units risk All local conditions of land, soil, and geological properties, including water movement hydraulics, and slope have been omitted in order to allow dischargers the opportunity to reduce their units risk rating by their own evaluation. Under Part A - Tiers #13, growers have the option to demonstrate

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		to the Executive Officer that they are in a lower Tier than one based on the definition in this Order. To do so, a discharger may use site specific factors such as existing groundwater quality, soil permeability, impermeable layers, formations, depth to groundwater, water balance (including irrigation water applied, precipitation, evapotranspiration, and runoff), nitrate applied to crops, and associated deep percolation/nitrate loading to groundwater, implemented management practices, or other factors, to demonstrate lower threat to groundwater and surface water. They can submit the complete Irrigation and Nutrient Management Plan directly to Water Board staff to demonstrate that nutrients applied on-site do not contribute to exceedances and that their irrigation water does not end in up any water of the State.
Comment No. 312 from California Farm Bureau Federation. Letter No. 79, p.2. Surface Water	The primary focus of maintaining and improving water quality over time should remain. To aid in reaching this goal, the Regional Board should evaluate water quality data collected and use such data to implement and adjust management practice implementation.	Staff agrees that receiving water monitoring at long-term trend sites remains an important tool for managing water quality and for showing that the program is having the desired outcomes of water quality improvement.
Comment No. 504 from California Farm Bureau Federation. Letter No. 79, p.14. Tiers 44-1	The 2011 Draft Order groups farm operations into three tiers using four criteria. The four criteria are arbitrary designations not based on sound science and not supported by evidence. The criteria have little bearing on risk to water quality.	The Porter-Cologne Water Quality Control Act authorizes the Regional Board to regulate discharges of waste that could impact the quality of the waters of the state. The dischargers that would be regulated by the Draft Order do discharge waste that actually has impacted the quality of the waters of the state. The four criteria directly address those impacts by focusing on areas with the highest water quality impacts. Those dischargers have the opportunity to choose the methods of compliance that directly address the discharges of waste at their own operations. The tiering structure does not preclude flexibility of choosing methods that address the specific issues. Water Code section 13269 specifically requires the Regional Board to include conditions in a waiver of waste discharge requirements and to require monitoring unless waived after a

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		determination that the discharges do not pose a significant threat to water quality. While section 13269 does not provide direction on the types of conditions to be imposed, section 13269 does include types of constituents and size of operation and other relevant factors. The tiering structure considers types of constituents (those that have resulted in water quality impairment), location (impaired water bodies), and size of operation. These are reasonable criteria given the available information.
Comment No. 491 from California Farm Bureau Federation. Letter No. 79, p.16. Timing/Schedule, Irrigation (Tile Drains) 6-1	The 2011 Draft Order states: "General time schedules for key compliance dates and milestones related to Order Conditions are identified in Table 4 (All Dischargers) and Table 5 (Tier 2 and Tier 3 Dischargers). Dischargers must achieve compliance with requirements by dates specified." (Draft Order, p. 28, ¶ 97, emphasis added.) The italicized statement requires all dischargers to meet all water quality standards within the applicable time frame (two years for pesticides and toxicity, three years for sediment and turbidity, and four years for nutrients and salts.) (Draft Order, p. 29, ¶¶ 98-100.) If a grower does not meet the water quality standard in the applicable time frame, the grower will be in violation of the conditional waiver even if the grower is making substantial progress toward compliance. …collective treatment systems…may take time to construct…should not be penalized….internal inconsistency exists regarding water quality standards and tile drains…(Draft Order, p. 29, ¶ 100) ….(Draft Order, Time Schedule, p. 3.) The internal inconsistency between the two milestones is confusing. Correspondence with staff has indicated that it has not been the intent to include tile drains in the timeline for elimination of nutrient discharges. In order to reflect this intent, it is suggested that paragraph 100 of the Draft	Regarding achieving compliance with water quality standards in timeframes in Draft Ag Order, see responses to Letter 11 (Comment No 487), Letter 32 (Comment No. 488), and Letter 83, (Comment No. 494). Regarding tiledrains, staff revised the Draft Order at Condition 102, as suggested in this comment to remove inconsistency and to clarify that tile drain runoff and discharge to receiving waters was not intended to be included here.

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	Order be rewritten to include the phrase "not including subsurface drainage to tiledrains" following "Dischargers" in the first line of the paragraph.	
Comment No. 666 from Monterey CoastKeeper. Letter No. 80, p.1. General (Farm Bureau Ag Alternative)	On various occasions, some agricultural stakeholders have represented that they are offering a compromise position or that they "have come a long way." We ask that the Board realize that they have compromised WITHIN their own stakeholder group, but they have not compromised with other VALUES and viewpoints. MCK has tried to reach out to the ag community and we feel entirely rebuffed.	See the Staff Report Section 4.B. for comparison of Agricultural proposals to other proposals. See response to Letter 11 (Comment No. 372) regarding the Ag Proposal.
Comment No. 314 from Monterey CoastKeeper. Letter No. 80, p.1. Monitoring/Reporting	A second point this letter is meant to address is the management of the Cooperative Monitoring Program and Water Quality Preservation Inc. The old order gave management of the Cooperative Monitoring Program (CMP) to a closed group of growers. The CMP must be transparent and credibly managed and implemented. By placing the management of the program along with a very sizable budget entirely in the hands of the growers, the RWQCB has essentially created a grower's advocacy organization that controls and interprets much of the Region's water quality data. The new Draft Order is silent on this issue. Although it pains us to write such harsh words, we have no faith in Preservation Inc. Preservation Inc has been unwilling to interpret data or release follow-up monitoring results that would reflect badly on individual growers. Consistently, Preservation Inc portrays itself as being about collecting data and improving water quality; yet time after time we see Preservation Inc. advocating a grower's point of view. Change is needed.	Preservation Inc. has delivered data and monitoring reports as required by to the Water Board. Data and finalized reports are available to the public upon request at the Water Board's office, as are other discharger data and reports. Unlike most other dischargers, data is available electronically with QA documentation, and is available on the web at www.ccamp.org. Preservation Inc.'s requirement to deliver data and monitoring reports is similar to other dischargers elsewhere in the Region. Growers have met their monitoring requirements, using an option the Board made available to them, by forming a functional cooperative organization.
Comment No. 443 from Western Growers. Letter No. 81, p.3.	An example of the potential for miss-interpretation may be the prohibition on the application of fertilizer such that	See response to Letter 31 (Comment No. 385) Staff has revised the Draft Order to remove the prohibition for fertilizer application

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Implementation	it "…contributes to exceedances of water quality standards". This could in fact be interpreted as a prohibition on the application of fertilizer. "Contributes" needs to be clearly and specifically defined. Without that definition this is a defacto demand for 100 percent efficiency in fertilizer applications which is likely impossible to achieve.	and place in the order as a condition. The term "contribute" is intended to address the situation where multiple discharges result in exceedances of water quality standards in the receiving water. Dischargers are expected to implement management practices to control discharges of waste to the extent practicable to achieve water quality standards; 100 percent efficiency is not expected.
Comment No. 445 from Western Growers. Letter No. 81, p.4. Implementation	The RWQCB mandates, through conditions, that waters received by an owner/operator be cleaned or treated to a higher quality prior to its release. This places the onus on owner/operators to invest in treatment of water to a higher quality than when they received it. It is punitive to growers who receive lower quality water and may have no options for alternative sources. An example is in the conditions section when dischargers are required to ensure that the water quality from their operation that percolates into groundwater meet all beneficial uses (including drinking water) at the point where it enters the ground. If they receive waters that do not meet all beneficial uses it becomes a condition that they treat/clean that water prior to release. In effect this obligates them beyond control of their own operation to further dealing with operations or historical conditions beyond their control. In the agricultural alternative proposal there may be some ability for operators to work cooperatively on these types of issues but it is still unfair to hold owners/operators liable for events conditions outside the scope of their operation	The 2004 Ag Order and the 2011 Draft Ag Order require dischargers to implement management practices to protect the beneficial uses of waters of the state and comply with water quality standards. The 2011 Draft Ag Order does not specify the manner of compliance; however, there is nothing in the Draft Order suggesting that dischargers must implement water treatment technology such as reverse osmosis or reverse ion exchange to deal with waste discharges.
Comment No. 315 from Western Growers. Letter No. 81, p.1.	Once you have established your placement in one of three Tiers, you are required to observe several prohibitions, implement a variety of best practices and	See response to Letter 15 (Comment No. 249).

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Monitoring/Reporting	process controls, and conduct various monitoring and reporting functions each of which is dependent on the "tier" your operation falls into and all of which are scattered between several documents.	
Comment No. 316 from Western Growers. Letter No. 81, p.1. Pesticides/Toxicity	Western Growers believes a functional narrowing of the scope of the waiver gives regional operators/landowners and others committed to improved water quality in the region the best opportunity to coalesce in a focused fashion and address unique and high priority issues. An example of how this might be applied would be to focus on key constituents of concern such as chlorpyrifos, diazinon and nitrate identify discrete water bodies where there are consistent exceedances and focus on those areas and operators that contribute to those waters.	Staff has proposed focusing on chlorpyrifos, diazinon, and nitrate, through tiering and monitoring requirements. However, given the amount of sediment toxicity we see in the CMP data (due to pyrethroids as well as chlorpyrifos), and because focus on two chemicals will likely cause growers to switch to others that may also be toxic, it is not appropriate to narrow the scope.
Comment No. 317 from Western Growers. Letter No. 81, p.1. Surface Water	Western Growers reiterates our concerns relative to the underlying science and assumptions made in conjunction with this Draft Order and the rationale that support sweeping regulation of the region's most progressive, dynamic and economically important industry. In prior correspondence with the RWQCB we submitted a letter outlining our concerns with the science associated with preliminary staff recommendations for an agricultural order. In that letter we questioned the relative source contributions attributable to agriculture, the occurrence and risk of nitrates in the regions waters, the assumptions built into the evaluation of agricultural impacts on aquatic organisms, and endangered species and agriculture's impact on surface water and groundwater quality.	Much of the underlying data and analysis staff has relied upon include monitoring and interpretive reports submitted by the Cooperative Monitoring Program, peer reviewed journal articles, reports from other agencies (such as Department of Pesticide Regulation) as well as the Board's own data. Evidence overwhelmingly shows that in areas of high intensity agricultural activity (particularly in the lower Salinas and Santa Maria areas) water and sediment toxicity and nitrate contamination is widespread, aquatic communities are depauperate, and groundwater contamination impacts drinking water sources. This is detailed in Attachment G to the Staff Report.
Comment No. 442 from Western Growers. Letter No. 81, p.3. Tiers (Tailwater)	This question, "is there discharge" is an important question never or not effectively asked in the draft Order – yet monitoring of "tailwater" becomes a key compliance factor for those owner/operators in Tier 3. It seems	The Draft Order has been revised to clarify that dischargers may form coalition groups to assist in compliance with the Order.

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	much more prudent, efficient and likely to show improved water quality in the region if the RWQCB would first prioritize a manageable number of areas of concern based on key constituents of concern and then within those areas allow and incentivize owner/operators to make improvements based on their unique needs. This would mean operators who discharge would be free to coalesce to reduce their contributions to pollutant loads using BMPs, collective treatment or other creative and valid solutions that actually improve water quality. The agricultural alternative is structured to facilitate this as it prioritizes based on individual risk including whether there is a discharge, what is potentially in the discharge and then fostering collective action through coalition.	
Comment No. 492 from Western Growers. Letter No. 81, p.5. Timing/Schedule	We believe the timelines and milestones outlined in the agricultural alternative proposal have consensus support as being achievable and will allow for the RWQCB to verify that continual progress to improved water quality is being made by agriculture. To that end we again call upon the RWQCB to review and adopt those timelines in lieu of those in the Draft Order.	Regarding achieving compliance with water quality standards in timeframes in Draft Ag Order, see responses to Letter 11 (Comment No 487), Letter 32 (Comment No. 488), and Letter 83 (Comment No. 494).
Comment No. 25 from Grower Shipper Association. Letter No. 82, p.4. Aquatic Habitat/Buffers	Moreover, the MRP on Page 16 (Subparagraph F) requires a water quality buffer plan be prepared by all Tier 3 dischargers located not adjacent to, but within 1000 feet of such impaired waterbody.	See response to Letter13 (Comment No. 11).
Comment No. 24 from Grower Shipper Association. Letter No. 82, p.3. Aquatic Habitat/Buffers, Implementation (Bare Soil)	Finally Condition 78 requires the photo monitoring of the presence of bare soils vulnerable to erosion.	The photomonitoring of bare soil is meant only for bare soil areas within riparian and wetland areas. Staff has adjusted the wording in condition #78 to make this clearer.

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Comment No. 668 from Grower Shipper Association. Letter No. 82, p.1. General (Farm Bureau Ag Alternative)	The decision by Regional Board staff to "go it alone" has resulted in the agricultural community coming together to develop competing alternative recommendations. The focus of the Agricultural Alternative is to increase accountability through the implementation of management practices. Coalitions will be established, governed and funded by the agricultural community to evaluate the effectiveness of such practices at improving water quality and hold growers accountable. This Association believes both water quality and agricultural interests will be best served through a "melding" of those two approaches. The Board can attempt to harmonize using the public hearing process or could direct Regional Board staff and representatives of the agricultural organizations to meet to discuss, at a minimum, the following program elements…	Staff and the Central Coast Water Board must "harmonize" and "meld" all alternatives, proposals and suggestions submitted and provided to staff through the several years of outreach and public input that has already transpired. Staff and the Central Coast Water Board have relied on both staff representatives meeting with agricultural representatives and the public hearing process in so doing. Staff has considered the Agricultural Alternative and reported their findings in the Staff Report, Appendix D. Options Considered, Section VII. See response to Letter 11 (Comment No. 372) regarding the Ag Proposal.
Comment No. 638 from Grower Shipper Association. Letter No. 82, p.3. Implementation (Bare Soil) 81-4, 83-9, 83-18	The Draft Order Sets Forth Discharge Prohibitions that are Arbitrary and Vague. The Draft Order in Condition 25 prohibits the "presence of bare soil vulnerable to erosion." Condition Number 66 states that discharges must minimize the presence of bare soil vulnerable to erosion and stormwater runoff. Condition Number 71 requires erosion control practices to protect the heavy use or bare soil areas from concentrated flows of stormwater. Finally Condition 78 requires the photo monitoring of the presence of bare soils vulnerable to erosion. This term "presence of bare soil vulnerable to erosion" is not defined in the Order. Those subject to this prohibition have no real basis for determining whether they are in violation of this prohibition. There are times between plantings when an entire agricultural field is bare soil.	The proposed order does not prohibit the presence of bare soil; it would require dischargers to "minimize the presence of bare soil vulnerable to erosion." Where bare soil does not discharge waste to waters of the state, a discharger would not be required to take any action. The discharge of waste is a privilege, not a right (see Water Code section 13262, subd.(g)). If bare soil does cause discharges of waste, including sediment, to waters of the state, the discharger is required to take action to control such discharges. The Draft Order has been revised to remove some of the prohibitions, including the prohibition related to bare soils, and place in the section on general conditions.

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Comment No. 639 from Grower Shipper Association. Letter No. 82, p.4. Irrigation (Tile Drains)	Water Discharged by the Operation of Tile Drains are not Considered Waste and Should not be Subject to the Order. The operation of drainage systems to lower the water table below irrigated lands occurs in the lower end of several coastal valleys. These areas have perched water tables and naturally flowing artesian wells. Farmers in those areas pump this subsurface water discharging it directly to drainage channels to lower the water table. These discharges typically do not contain any materials that were not present prior to the water being brought to the surface and discharged. The drainage system simply raises groundwater to the surface and discharges it without adding any waste substances associated with human or animal origin. Accordingly tile drains should not be included as a regulated type of discharge under the Draft Order.	The Water Board has the authority and responsibility to regulate discharges of waste that could impact the quality of waters of the state. To the extent discharges from tile drains do not cause impacts to the beneficial uses of waters of the state, a discharger would not be required to take action to address such discharges. Note that groundwater can be of different quality than surface water so discharges from groundwater to surface water may carry waste that could impact the quality of the waters of the state. Given the complexities of addressing tile drains, the Draft Order has been revised to postpone directly regulating discharges from tile drains. Also, please see response to Letter 16 (Comment No. 175).
Comment No. 637 from Grower Shipper Association. Letter No. 82, p.3. Tiers	It is Arbitrary and Unfair to Single out Tier Three Dischargers to Require Them to Meet Compliance Milestones. The Draft Order sets forth dates for Tier 3 dischargers to demonstrate compliance with Toxicity Standards (Condition 98), Sediment and Turbidity Standards (Condition 99) Nutrient in Surface Water (Condition 100) and Nutrients in Groundwater (Condition 101). Staff has estimated that approximately 100 farming operations in Region 3 will fall within Tier 3. The remaining 1600 operators who fall into lower tiers will not be required to demonstrate compliance with these Standards. Such a distinction is inconsistent with the basic tenet of equal application and protection of laws.	Equal protection is equality under the same conditions and among persons similarly situated. Water Code section 13269 requires the Regional Board to place conditions in any waiver of waste discharge requirements and ensure consistency with the Basin Plan. It may make reasonable conditions to protect waters of the state. It is reasonable to adopt tiers based on threat to water quality. This difference is not arbitrary and has a substantial relationship to the object of restoring beneficial uses of water resources. Further, the discharge of waste is a privilege, not a right (see Water Code section 13262, subd.(g)). Dischargers need not enroll in the waiver of waste discharge requirements, but if not, they would be required to submit a report of waste discharge and seek individual waste discharge requirements or waiver.
Comment No. 96 from California Strawberry Commission. Letter No. 83, p.31.	[the] Memorandum selects various excerpts from outdated reports and draws erroneous conclusions. For example, the [Memorandum] quotes a 2005 research study as follows: "demand at every price is increasing,	Comment noted. Water Board staff does not consider the 2005 research to be outdated. Additionally, staff reported the conclusions in the report itself and avoided drawing separate conclusions.

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Economics	because of income and population growth effects..at a rate estimated at 2.3 percent annually. [This] effect dominates, suggesting that farmers will not face losses at all but simply a slowing of the rate of increase in the gains that they would have expected in the absence of a cost increase." ([Memorandum] p.40.)	
Comment No. 100 from California Strawberry Commission. Letter No. 83, p.31. Economics	The [Memorandum]…fails to include any real information on the potential impacts to the regional economy. Although it includes a section allegedly dedicated to this issue, the information referenced does not achieve that purpose…the [Memorandum] reviews a 2004 report prepared in conjunction with Monterey County's General Plan but fails to include any other information or analysis that attempts to quantify the potential regional economic impacts associated with implementation of the Draft Waiver.	It is beyond the scope of Water Code and CEQA requirements to prepare the analysis called for in this comment. Nevertheless, Water Board staff selected to include the Monterey County General Plan economic analysis and considers the data, presented in Section 3.2.2 of Appendix F, to be "real information." Staff believes the data achieve the purpose of illustrating the relative scale of the Draft Order's potential impacts to the multi-billion dollar agricultural industry, since it evaluates the conversion of nearly 12,800 acres of agricultural land to non-agricultural uses – an effect much greater than that anticipated from the Draft Order. Furthermore, the data describe the effect on all direct, indirect, and induced economic activity associated with agricultural production, and express the 20-year time frame over which the General Plan's effects would play out. See Response to Letter 40 (Comment No. 648).
Comment No. 94 from California Strawberry Commission. Letter No. 83, p.31. Economics	In general, the Draft Technical Memorandum: Cost Considerations appears to greatly under-estimate the costs associated with the Draft Waiver and its economic impact to the region. For example, it attempts to limit application of certain requirements for cost considerations in a manner that is inconsistent with actual Draft Waiver requirements. More specifically, to calculate an estimated cost for Aquatic Habitat Protection using buffers, the Central Coast Water Board staff only estimates costs for operations that were larger than 1000 acres and adjacent to an impaired waterbody (Draft Technical Memorandum: Cost Considerations at	The Draft Order requires a Water Quality Buffer Plan only for Tier 3 dischargers adjacent to waterbodies listed as impaired for sediment, turbidity, and/or temperature and are at least 1000 acres. The Draft Order provides alternatives to preparation and implementation of a plan. The Draft Order was clarified to address your comment.

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	p. 27). However, the water quality buffer plan requirements would apply to Tier 3 dischargers with operations adjacent to impaired waterbodies regardless of their size (See Draft Waiver at p. 2). Accordingly, the staff's analysis in Table 8 grossly underestimates these costs by limiting their applicability only to operations that exceed 1000 acres.	
Comment No. 95 from California Strawberry Commission. Letter No. 83, p.31. Economics	[The] Draft Technical Memorandum: Cost Considerations attempts to review the economics of strawberry production as an indicator of how Central Coast agriculture will adjust to the economic impact of the Draft Waiver. Unfortunately, this assessment is incomplete, includes outdated reports, and draws false conclusions. First, the [Memorandum] fails to actually quantify the costs associated with the Draft Waiver. For example, there are no commercial ready production practices in the world that can immediately comply with some of the prohibitions included in the Draft Waiver. Thus, in those cases, the cost is not some incremental regulatory cost, but in fact impacts the ability to remain in farming.	Note that the proposed Order has been revised to remove some of the prohibitions. If by the term "commercial ready production practices," the comment means management practices that are currently available to growers, Water Board staff disagrees with the comment's assertion that none are available for some of the prohibitions in the Draft Order. Appendix F includes multiple examples of practices addressing all aspects of farming that support compliance with the Draft Order (see Tables 2 through4). Furthermore, compliance with the Draft Order is phased in over ten years, allowing time to achieve compliance. If the comment infers that agriculture can not be practiced today without contributing to exceedances of water quality standards, then the comment indirectly argues for the regulatory strategy upon which the Draft Order is based.
Comment No. 97 from California Strawberry Commission. Letter No. 83, p.32. Economics	The [Memorandum] then acknowledges, "[the current conditions of stagnating income growth are different from 2005 when this research was completed." (Ibid.) To say that current economic conditions are "different" than in 2005 is an understatement. To further suggest that the study is still relevant and that demand will simply outweigh costs fails to recognize that consumer demand is associated with retail price.	Water Board staff acknowledges that economic conditions generally have worsened since publication of the cited report, but conditions within the strawberry sector itself, as described in a current USDA report (2010) and cited in Appendix F, apparently are more sensitive to seasonal effects than to these broader economic conditions. Appendix F cites the USDA report to demonstrate that abundance of supply depresses prices and conversely, lower production results in upward pressure on strawberry prices, and that these effects are variable from season to season (staff's subsequent discussion of price elasticity, Section 3.2.1, cites additional data supporting this finding). The 2005 report remains relevant as a detailed examination of potential effects of regulation on an agricultural commodity. Its

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		primary objective has thus far been realized: to demonstrate that forecasted impacts to the strawberry sector from phasing in new air quality regulations was largely overstated. Water Board staff provided the discussion of the report and its findings as an example of the relative influence of many factors in determining the ultimate economic viability of farming enterprises, and to place in context the costs of production attributable to environmental compliance.
Comment No. 98 from California Strawberry Commission. Letter No. 83, p.32. Economics	Although the [Memorandum] recognizes the effects of globalization as a legitimate factor, it references an outdated study to dismiss its impact. More specifically, the Memorandum quotes the report, "..capacity to produce for export in Mexico would have to grow dramatically at a rate without historical precedent for imports to make a serious dent in the U.S. market.." [p.40]. It adds, "[i]n the last 10 years, Mexican strawberry exports to the U.S. have quadrupled. If they quadruple again in the next 10 years and if the U.S. market does not grow at all..Mexican imports would then be 24 percent of U.S. consumption." (Ibid.). A review of U.S. Department of Commerce, Bureau of Census import data indicates that in fact strawberry imports from Mexico for the past five years (2004-2009) have nearly doubled ($96 million in 2004 compared to $180 million in 2009). Thus, had current data available from the U.S. Department of Commerce, Bureau of the Census, been reviewed, then the [Memorandum] would have found that the scenario that the study stated was "without historical precedent" is in fact the scenario that is currently taking place.	The comment cites the doubling of imported strawberries over the past five year; this represents $84 million over five years, or, just under $17 million/year. California strawberries had a farm gate value of $1.4 billion in 2009 alone. Even this unprecedented rise in imports does not change the 2005 report's assertion that imports would need to be significantly higher to "make a serious dent in the U.S. market."
Comment No. 99 from California Strawberry Commission. Letter No. 83, p.32.	Finally, Draft Technical Memorandum: Cost Considerations references USDA Economic Research Service outlook reports on the impacts of weather. The reports referenced highlight how weather can have a	The purpose of Appendix F is to describe potential costs of different management practices that could be used to control discharges of waste. It is not a cost/benefit analysis. The Water Board is not required to conduct a cost/benefit analysis. And

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Economics	significant impact on the supply and pricing of strawberries. It then states, "[t]he strawberry example illustrates the relative influence of multiple factors in determining the ultimate economic viability of farming enterprises, and places in context the incremental cost of production attributable to environmental compliance." Unfortunately, the [Memorandum] misses entirely what happens in reality. A deeper review of the USDA outlook reports reveals that retailers shift the source of their supply to the lowest price available. As a result, regulatory costs have an even greater impact.	Appendix F is not intended to suggest that growers must use the methods evaluated; it is simply an evaluation of potential compliance methods and their costs consistent with Water Code section 13141.
Comment No. 101 from California Strawberry Commission. Letter No. 83, p.33. Economics	Considering the significant deficiencies in the Draft Technical Memorandum: Cost Considerations, Central Coast Water Board members will not be able to materially consider the cost implications of this program without further information. To help fill this void, the [California Strawberry Commission] encourages Central Coast Water Board consideration of an in-depth study report that has been commissioned by the Grower-Shipper Association of Central California. We understand that this in-depth report will be available and transmitted to the Central Coast Water Board in early February.	Comment noted.
Comment No. 642 from California Strawberry Commission. Letter No. 83, p.5. General (Water Code section 13263)	Provision 1 lists the relevant statutory authority under which dischargers must comply with the terms and conditions of the Draft Waiver, including Water Code sections 13263,13267, and 13269. However, one of the listed code sections, Water Code section 13263, is not applicable to the Draft Waiver and should not be included. Water Code section 13263 addresses the Central Coast Water Board's ability to prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge, and places certain restrictions on that	Water Code section 13269 allows the Water Board to waive the provisions of Water Code section 13263(a), not the rest of Water Code section 13263. Therefore, it is appropriate to reference Water Code section 13263 in the provision cited.

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	authority. (Wat. Code, § 13263(a).) However, the Draft Waiver is not a waste discharge requirement or change to an existing waste discharge requirement, but rather a conditional waiver of waste discharge requirements. (See Wat. Code, § 13269.) As the Subsequent Environmental Impact Report (SEIR) acknowledges, discharge authorization can be in the form of waste discharge requirements *or* a conditional waiver of waste discharge requirements. (SEIR, p. 2, § 2.2.) The reference to and inclusion of Water Code section 13263 in this provision is inappropriate and should be eliminated.	
Comment No. 644 from California Strawberry Commission. Letter No. 83, p.6. General (Discharger Defn)	Provision 8 Inappropriately Places Landowners In a Regulatory Role. This provision would require landowners to police lessees to ensure that they are complying with the terms of the Draft Waiver. Such a provision is improper for several reasons. First, determining compliance with the Draft Waiver is a Central Coast Water Board function-not a landowner function. While the Central Coast Water Board may arguably have the authority to hold both landowners and operators jointly responsible for compliance with the Draft Waiver, the Central Coast Water Board has no authority to require landowners to "police" operators and determine if they are compliant with the terms of the Draft Waiver. Second, as proposed, this provision puts landowners in jeopardy of being responsible for multiple violations for one act of wrongdoing. Under this provision, a landowner could theoretically be liable for a violation of the Draft Waiver individually, and also be liable for the very same violation by not "ensuring" that the operator was compliant. Accordingly, this provision should be deleted.	See response to Letter 15 (Comment No. 623).
Comment No. 449 from California	With respect to pesticides, their use and registration is	See response to Letter 79 (CEQA Comment No. 502 in

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Strawberry Commission. Letter No. 83, p.9. General (Authority, Pesticides)	regulated exclusively by the California Department of Pesticide Regulation (DPR). (See Food & Agr. Code, § 11501.1 l" This division and Division 7 (commencing with Section 12501) are of statewide concern and occupy the whole field of regulation regarding the registration, sale, transportation, or use of pesticides to the exclusion of all local regulation." l.) Conversely, the Central Coast Water Board's authority is limited to matters that pertain to water quality, and does not include the authority to direct growers with regard to their pesticide applications or to direct the means to comply with a DPR permit. (See Wat. Code, § 13225; see also *id.,* § 13360 l"No .. order of a regional board .. shall specify the .. particular manner in which compliance may be had with that requirement, order, or decree, and the person so ordered shall be permitted to comply with the order in any lawful manner." l.)	Attachment A to the SEIR in Appendix H).
Comment No. 393 from California Strawberry Commission. Letter No. 83, p.10. General (BMPs to control nitrate) 83-17	As proposed, Provision 30 states, "[dischargers must not cause or contribute to exceedances of water quality standards .. [and l .. may have to implement best management practices, treatment or control measures, or change farming practices to achieve compliance with this Order." (Draft Waiver at p. 13.) Much like the Part B Discharge Prohibitions, this provision would require immediate compliance with all water quality standards, without due regard for time schedules or other considerations…Considering the uncertainty associated with meeting water quality standards even with the implementation of BMPs, provisions such as this must be deleted from the Draft Waiver as they create an impossibility of compliance for agricultural operations in the Central Coast.	The proposed Order has been revised to clarify compliance and to delete some of the prohibitions. Additional Finding 2 in the Draft Ag Order acknowledges that it will take time for pollution sources to be controlled enough to meet water quality standards in receiving water. The Draft Order includes conditions and timeframes to reasonably account for time needed for dischargers to implement pollution control or management practices, collect data, determine measures of effectiveness, and for receiving water quality conditions to respond to implementation. Dischargers must comply with the conditions that apply to their Tier. The milestones set forth in Table ???, are intended not for enforcement purposes but to assist in determining if dischargers are effectively controlling discharges of waste.

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		a) A summary of all the conditions, targets, and timelines for compliance can be found in Table 5 of the Draft Order. Staff has also considered the existence, and readability of BMPs when deciding the timelines. For example, tile drains have been excluded from certain provisions because of the difficulties in the development and implementation of BMPs to achieve the desired water quality standards. b.) The comment related to the lack of BMPs to bring the nitrate concentration to or below 10 ppm in surface water discharges, has also been noted and considered when deciding the timelines for compliance, and that is the reason why the conditions are focusing in the "loading" of nitrate and not on the concentration of nitrate in the discharge: *Milestones:* *Individual Discharge Monitoring indicates –* *12 Months – Four samples collected* *24 Months – 50* *load reduction of measured nutrients in irrigation runoff* *36 Months – 75* *load reduction of measured nutrients in irrigation runoff* Staff believes that growers and operators will be able to comply with the requirements and milestones by improving the irrigation efficiency and eliminating irrigation runoff/tailwater discharges. Also, read response to Letter 11 (Comment No. 487).
Comment No. 394 from California Strawberry Commission. Letter No. 83, p.17.	Provision 61 Undermines Time Schedules. This provision states that dischargers must not cause or contribute to exceedances of pesticide and toxicity water quality standards, but does not include timeframes for	The proposed Order has been revised to delete some of the prohibitions and has clarified schedules. See response to Letter 83 (Comment No. 393).

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General (Draft Agricultural Order)	compliance or incorporate reasonable time schedules. Again, as with the discharge prohibition provisions and others, this immediate requirement defeats the purpose of reasonable time schedules.	
Comment No. 395 from California Strawberry Commission. Letter No. 83, p.20. General (Draft Agricultural Order)	Provision 73h May Require Individual Monitoring by All Dischargers. This provision states that Farm Plans must demonstrate that discharges do not cause or contribute to exceedances of water quality standards by including, "methods and results to evaluate progress and effectiveness of water quality management practices .. " (Draft Waiver at p. 21.) The only certain method for meeting this requirement is to conduct on-farm, edge-of-field monitoring. Thus, this provision implies that individual farm monitoring would be required of all dischargers-not just those in Tier 3. The CSC is not opposed to the implementation of voluntary, on-farm SMART Sampling. (See Agricultural Alternative at paragraph 9-1O.) However, the CSC does oppose any mandate that would require individual, on-farm monitoring.	The Draft Order has been revised to address similar comments. The Draft Order does not require dischargers to conduct edge of field monitoring, but to monitor surface water and groundwater based on Tiers. The Water Board is required in a waiver of waste discharge requirements to require compliance with the Basin Plan. The purpose of management practices is to assure compliance with water quality standards. The Farm Plan should be developed with the goal to evaluate the effectiveness of current practices and to propose new or revised management practices to assure protection of water quality. This condition allows a farmer to choose appropriate measure of effectiveness for the practices in use and the level of reduction that farmer needs to achieve. This may include individual discharge monitoring at edge of field but can also include measuring load reduction from individual practices (could be based on measuring reduction in use, simple load modeling) or elimination of practice or use of chemical or some equivalent measure of effectiveness, including SMART Sampling.
Comment No. 669 from California Strawberry Commission. Letter No. 83, p.21. General (Education)	The requirement that dischargers complete 15 hours of farm water quality education within 18 months of adoption of the Draft Waiver is burdensome. This is a significant amount of educational hours that would need to be completed in a relatively short period of time. In contrast, the previous conditional waiver required dischargers to complete 15 hours of education in a 3-year period. The CSC supports the need for continuing education. However, the CSC believes that 5 hours for growers that were subject to the 2004 Conditional Waiver is sufficient. Conversely, 15 hours for new growers may be appropriate.	Staff considers education valuable for the purpose of assisting growers with appropriate implementation that will reduce their pollution loading and improve water quality. However, Staff does not consider education an important action to track or enforce and has removed the education requirements from the revised Draft Order. Also, see response to Letter 2 (Comment No. 658).

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Comment No. 390 from California Strawberry Commission. Letter No. 83, p.3. Groundwater (Legacy Nitrates) 88-4	The Finding that irrigated agriculture is the primary source of nitrate pollution in drinking water wells is not supported by available data and information. Finding 6 of the Draft Waiver states in part that, "nitrate pollution of drinking water supplies is a critical problem throughout the Central Coast Region. Studies indicate that fertilizer from irrigated agriculture is the largest primary source of nitrate pollution in drinking water wells and that significant loading of nitrate continues as a result of agricultural fertilizer practices. Researchers estimate that tens of millions of pounds of nitrate leach into groundwater in the Salinas Valley alone each year. Studies indicate that irrigated agriculture contributes approximately 78 percent of the nitrate loading to groundwater in agricultural areas." This finding is largely responsible for many of the groundwater and nitrate related requirements proposed in the Draft Waiver. (See, e.g., Provisions 80 through 91, at pp. 22-27.) However, critical review of available data and information question the finding and the evidence from which it is supposedly derived. A report prepared by Robert Dolezal, *Anomalies in Data Supporting Proposed Regulations Offered by the Central Coast Regional Water Quality Control Board: A Critical Analysis - November-December 2010* (Dolezal 2010), provides significant information that questions the statements made in Finding 6. (Dolezal 2010, Attachment 1, submitted on CD that was sent via Federal Express to the Central Coast Water Board on December 30, 2010.) For example, Dolezal 2010 summarizes results from several U.S. Geological Survey reports to show that in fact there is not widespread nitrate groundwater contamination in the Central Coast. (Dolezal 2010 at pp. 4-5.) Dolezal 2010 also provides	There is sufficient information in the record to support the conclusion that agricultural dischargers subject to the waiver use nitrates and other materials that discharge to waters of the state through leaching to groundwater or direct discharges to surface water. Water Code section 13269 requires the Water Board to require consistency with the Basin Plan and other plans, including the State Water Board's Nonpoint Source Policy, and to include conditions to require control of discharges of waste to protect the beneficial uses of waters of the state. The technical reports that would be required by the proposed order would provide more information to identify if a particular discharger is causing or contributing to violations of water quality standards in surface and groundwater. It is reasonable to conclude that any person who applies nitrates and pesticides to land is, at a minimum, suspected of discharging waste within the meaning of Water Code section 13267, especially given the information contained in the record demonstrating that many water bodies in the Central Coast Region are polluted with chemicals used by agriculture. Nitrate impacts to groundwater and drinking water beneficial uses and the sources of nitrate loading are discussed in detail with supporting references within Section 2.0, Groundwater Quality, of Appendix G of the proposed Order. Although detailed analyses of nitrate impacted water supply wells using state of the art forensic techniques are not typically applied to definitively determine the relative contribution of agricultural sources of nitrogen to impacted wells, a growing number of studies (see Appendix G) have shown chemical fertilizers are the primary source of nitrate impacts within various aquifers and impacted water supply wells in areas subject to intensive irrigated agricultural land use. In addition, higher incidences of nitrate impacted water supply wells typically occur within groundwater basins or aquifers that are underlying areas of significant irrigated agricultural land use. A national study by USGS analyzing water quality data from 2,167 domestic wells collected as part of the

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	evidence that disputes the statement that tens of millions of pounds of nitrate leach into groundwater in the Salinas Valley. (See Dolezal 2010 at pp. 5-6.) Overall, the evidence provided in Dolezal 2010 clearly indicates that statements proposed in Finding 6 are overstated and not supported by evidence in the record. Thus, Finding 6 fails to support the proposed Draft Waiver provisions that are intended to "rectify" agriculture's impacts to groundwater. Without supporting substantial evidence, many of the nitrate and groundwater requirements are inappropriate.	National Water-Quality Assessment Program (NAWQA) concluded nitrate was present at concentrations greater than the drinking water standard more frequently in agricultural areas than in other land use settings. As discussed within Appendix G, relative land use activities overlying various groundwater basins, groundwater extraction/pumping and subsequent agricultural return flows (leaching to groundwater), regional nitrogen input analyses by USGS and Water Board staff, and numerous studies and reports dating back 30 years all indicate that chemical fertilizers and irrigated agriculture are the primarily sources of nitrate impacts to groundwater within the Central Coast Region as well as other parts of the state and nation. The most compelling data show the most widespread and severe nitrate impacts within agricultural water supply wells located in the Salinas Valley. Groundwater quality data collected by the Monterey County Water Resources Agency indicate that 54, 60 and 68 percent of the agricultural wells sampled within the three most severely impacted Salinas Valley groundwater subbasins are impacted with nitrate in excess of the drinking water standard at maximum levels of 6.4 to 11.2 times the drinking water standard. Land use within the Salinas Valley is approximately 63 percent farmland and pumping for agricultural irrigation accounts for over 90 percent of the groundwater extraction from the Salinas Valley groundwater basin. Similar levels of nitrate impacts to groundwater supplies have yet to be documented within areas that are not subject to irrigated agricultural land use activities.
Comment No. 391 from California Strawberry Commission. Letter No. 83, p.11. Groundwater (Nitrates) 109-5	Provision 31 Fails to Account for Assimilative Capacity in Groundwater. This provision states that dischargers must ensure that agricultural discharges percolating into groundwater must be of such quality at the point where they enter the ground to assure the protection of all actual or designated beneficial uses of groundwater. (Draft Waiver at p. 12.) This provision fails to account for potential assimilative capacity of groundwater and	The commenter is correct in that the compliance point for protection of beneficial uses of groundwater is not at the point where the discharge enters the ground. Research shows that nitrate can be attenuated in the soil column via the denitrification processes, and there might be assimilative capacity in the aquifer. However, research shows that denitrification is generally negligible below the root zone (e.g., Onsoy et al 2005). That said, it is the discharger's responsibility to demonstrate via site

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	treatment (i .e., de-nitrification) that may occur in the soil profile. The requirement that water be of sufficient quality at application does not account for the treatment in the soil profile that occurs after application, nor does it account for the assimilative capacity of groundwater. There is considerable treatment that may occur as water makes its way through the soil profile, and in many areas it can be reasonably expected that there will be significant dilution and attenuation of constituents after application. (See Dolezal 2010 at pp. 5-6; see also section I,*post.)*	specific information that a particular discharge to ground is protective of the beneficial uses of groundwater; therefore, the discharger must quantify nitrate attenuation processes and the assimilative capacity of the upper-most aquifer. Also, please see our related responses to Letter 12 (Comment No. 120) and Letter 79 (Comment No. 439). Reference:: Onsoy, Y.S., Harter, T., Ginn, T. and Horwath, W., 2005. “Spatial Variability and Transport of Nitrate in a Deep Alluvial Vadose Zone.” Vadose Zone Journal 4:41-54. The Draft Order has been clarified.
Comment No. 454 from California Strawberry Commission. Letter No. 83, p.12. Groundwater (Monitoring groundwater wells near areas with high N in domestic wells)	Provision 40 Exceeds Water Code Section 13267's Authority and Includes an Improper Reference to Section 13304. This provision states that the EO may require dischargers to locate and conduct sampling of private domestic wells "in or near agricultural areas with high nitrate in groundwater" and submit technical reports evaluating the sampling results. (Draft Waiver at p. 14.) As noted in greater detail in comments to Provision 59 below, Water Code section 13267 governs the submission of technical reports and requires that the Central Coast Water Board provide justification and evidence for the request on an individualized basis. (Wat. Code, § 13267(b)(l).) In order for such requests to be upheld, the Central Coast Water Board has the responsibility of explaining to the discharger the need for the information and identifying substantial factual evidence that supports requiring the reports. Further, the burden, including costs, of obtaining the report must bear a reasonable relationship to the need. Thi s provision implies that no such showing on the part of the Central	Regarding references to Water Code section 13267 please see response to Letter 79 (Comment No. 505). Regarding references to Water Code section 13304 see response to Letter 15 (Comment No. 627).

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	Coast Water Board is required before the EO can request such reports. In addition, the term "near" agricultural areas with high nitrate is undefined and gives too much discretion to the EO in broadly authorizing requests for such technical reports. Specific criteria identifying which dischargers are subject to this requirement are required, as is an acknowledgment that the EO does not have the authority to request such reports without the individualized showing required under Water Code section 13267.	
Comment No. 643 from California Strawberry Commission. Letter No. 83, p.5. Implementation	Provision 3 Creates an Unspecified Prohibition. This provision states that dischargers must not discharge any waste not specifically regulated by the Draft Waiver. However, there is no designation or reference as to what types of waste are specifically regulated by the Draft Waiver, or what types of waste are not included in the Draft Waiver. Such a provision provides no clarity or guidance to dischargers. Thus, this language is far too broad and requires some clarification.	Proposed findings 16 and 17 describe the scope of the order. See revised Draft Order Conditions 17-28.
Comment No. 455 from California Strawberry Commission. Letter No. 83, p.15. Implementation (Notice of Intent, NOI)	Provision 50(d) Is Impractical. This provision states that in the event of any change to operations or ranch/farm information, dischargers must submit an updated NOI to reflect the change. (Draft Waiver at pp. 16-17.) The term "any change" is not defined or adequately explained as part of this provision or the Draft Waiver. This provision fails to account for the fact that farming is an iterative and dynamic process. Changing circumstances require changes in operations on a frequent basis, far more often than farmers would be capable of submitting, and the Central Coast Water Board would be capable of reviewing, updated NOIs. It is infeasible and impracticable for every individual farmer or rancher to submit an updated NOI whenever there is "any change" in operations. This requirement should be limited to	The term “any change” refers to the farming ownership, operator, responsible party, acreage, location, and surface water discharges or runoff/tailwater. It does not refer to the crop grown at every point in time, to the practices and measures implemented, or to the daily operations. The proposed Order has been clarified.

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	changes that meet certain criteria or thresholds that need to be specifically identified in the Draft Waiver.	
Comment No. 456 from California Strawberry Commission. Letter No. 83, p.18. Implementation (Timelines) 79-16	Provision 63 Undermines Time Schedules. This provision states that discharges must not cause or contribute to exceedances of nutrient and salt water quality standards, but does not provide a reasonable timeframe for compliance, or reference the relevant time schedules in other sections of the Draft Waiver. Again, much as with the discharge prohibition sections, this immediate requirement that dischargers comply defeats the purposes of time schedules. For example, Provision 100 states that within *four years* of adoption of the Draft Waiver, certain dischargers must demonstrate that they are not causing or contributing to exceedances of water quality standards for nutrients and salts. These are two contradictory provisions, one prescribing immediate compliance and one allowing four years for compliance.	See response to Letter 15 (Comment No. 416).
Comment No. 219 from California Strawberry Commission. Letter No. 83, p.21. Implementation	Provision 76 Requires Onerous Education Requirements The requirement that dischargers complete 15 hours of farm water quality education within 18 months of adoption of the Draft Waiver is burdensome. This is a significant amount of educational hours that would need to be completed in a relatively short period of time. In contrast, the previous conditional waiver required dischargers to complete 15 hours of education in a 3-year period. The CSC supports the need for continuing education. However, the CSC believes that 5 hours for growers that were subject to the 2004 Conditional Waiver is sufficient. Conversely, 15 hours for new growers may be appropriate.	Staff considers education valuable for the purpose of assisting growers with appropriate implementation that will reduce their pollution loading and improve water quality. However, Staff does not consider education an important action to track or enforce and has removed the education requirements from the revised Draft Order. Also, see response to Letter 2 (Comment No. 658).
Comment No. 220 from California Strawberry Commission. Letter No. 83, p.22.	The use of the Nitrate Hazard Index as a regulatory tool is improper and unlawful for it has not been adopted into the Basin Plan pursuant to relevant Water and	Water Code sections 13240, 13242, 13244, and 13245 concern the adoption of water quality objectives and implementation plans into the Basin Plan. The Nitrate Hazard Index is not a Basin Plan

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Implementation, Nutrient Management	Government Code statutory provisions. (See Wat. Code, §§ 13240,13242, 13244, 13245; see also Gov. Code, § 11353(b).)	amendment and thus is not required to comply with those sections. In issuing a waiver of waste discharge requirements under Water Code section 13269, the Water Board must assure consistency with the Basin Plan. The use of the Hazard Index is consistent with the Basin Plan and is an appropriate tool to support the implementation of the waiver program Furthermore, waivers such as this Ag Order are not subject to approval by the CA Office of Administrative Law as stated in Gov. Code section 11352(b)), the section cited by the commenter.
Comment No. 222 from California Strawberry Commission. Letter No. 83, p.23. Implementation, Nutrient Management	Annual Reporting of INMP Elements Improper. The CSC does not oppose requirements for irrigation and nutrient management plans per se. In fact, the Agricultural Alternative includes similar requirements to be part of the Farm Plan. (See Agricultural Alternative at paragraph 8-9.) Essential elements of irrigation and nutrient management plans identified in the Agricultural Alternative are similar to those identified in Provisions 87-88, and are intended to achieve the same purpose, which is to ensure proper irrigation and nutrient management to protect water quality. (Ibid.) However, unlike the Agricultural Alternative, the Draft Waiver would make certain elements of the irrigation and nutrient management plans public by requiring annual reporting. (See Draft Waiver at p. 25.) The CSC opposes any mandate that would make any part of the Farm Plan, including irrigation and nutrient management plans, a public document. Such information is proprietary and not appropriate for release in the public domain. As proposed in the Agricultural Alternative, the irrigation and nutrient plans must be developed, and must be made available to Central Coast Water Board staff at the agricultural operation's place of business if requested. By allowing such review, Central Coast Water Board	See response to Letter 11 (Comment No. 172).

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	staff has the opportunity review and critique the information without transforming proprietary information into public records. Thus, it is not necessary to require annual reporting of certain elements.	
Comment No. 223 from California Strawberry Commission. Letter No. 83, p.24. Implementation, Nutrient Management	Certification of INMPs Impractical and An Unnecessary Expense. Provision 87 would require the INMP to be certified by a Professional Soil Scientist, Professional Agronomist, or Certified Crop Advisor. While many growers consult and work with such professionals, it is not necessary for an INMP to be certified in order to be an effective management tool. Many growers have in-depth practical experience as well as formalized training in irrigation and nutrient management techniques and are able to develop effective INMPs without professional assistance. Also, the requirement creates a new costly burden that many growers may not be able to afford. Alternatively, the CSC and other organizations can develop and offer educational training courses that will assist growers in developing effective INMPs. This assistance can be offered in conjunction with providing educational opportunities to growers to meet the educational mandates in Provisions 75 and 76. Assuming arguendo, of course, that the INMPs, or similar Farm Plan elements, remain confidential, proprietary documents.	Staff determined that it is reasonable to require a certified Irrigation and Nutrient Management Plan to insure dischargers loading or potentially loading nitrate to groundwaters or surface waters effectively comply with the Order. This requirement is not without precedent as the Central Valley Water Board's (Region 5) Dairy Program permit requires that the implementation of a nutrient management plan be signed by a licensed or certified professional fertilizer specialist. The Draft Agricultural Order allows for a similar professional or third-party approved by the Executive Officer. Offering a certification program to agriculture is something that could be further evaluated by Industry. However, the hours required to fulfill an accredited program and develop a level of expertise necessary perhaps would be too burdensome for most dischargers. For example, a certified crop advisor must pass two comprehensive exams, have at least two years of experience with at least a Bachelor of Science Degree in agriculture or four years of experience with no degree, and document education and crop advising experience with transcripts and supporting references.
Comment No. 224 from California Strawberry Commission. Letter No. 83, p.24. Implementation, Nutrient Management	Nitrogen Balance Ratios Fail to Account for Actual Groundwater Vulnerability and Crop Needs. Provision 90 would require Tier 3 dischargers to achieve certain nitrogen balance ratios without considering if groundwater beneath the fields in question is intrinsically vulnerable, and fails to consider practical implications. Provision 90 also attempts to oversimplify crop nutrient needs as compared to the amount of nutrients (i.e., nitrogen) applied. For example, while a nitrogen balance	Staff understands that, in order to achieve the target ratios included in provision 90, a grower working along with a professional fertilizer specialist will have to apply fertilizer in the right source, right time, and right place, to achieve also the right rate (The 4Rs concept: http://www.ipni.net/4r). Also, please see responses to Letter 76 (Comment No. 439) and Letter 79 (Comment No. 215).

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	ratio of 1.2 may sound appropriate, in reality it is not always possible or practical. (See Dynamics of Nitrogen Availability and Uptake, Attachment 5, at p. 1 l"The temporal supply of plant available N must match the temporal N demand by the crop to achieve the goal of 'provide adequate, but not excessive levels of soil nitrogen throughout the growing season.' Achieving this goal may not always be possible or practical, but one should strive to do so to the extent possible."J.) As indicated above, the largest threat to groundwater is more closely related to intrinsic vulnerability associated with physical factors versus actual agricultural operations. Thus, strict requirements for nitrogen balance ratios that fail to consider actual groundwater vulnerability are arbitrary and capricious. Further, the Draft Waiver and its record fail to include any findings or supporting evidence that indicate the ratios proposed are appropriate for rotational and annual crops. The CSC is currently conducting research to collect information necessary for determining nutrient sufficiency needs for strawberry production and there is currently no agreement on the levels necessary for successful production of strawberries across all varieties, production systems and locations. Without a more complete research basis for establishing such findings, the requirements are arbitrary and unlawful. Further, basing nitrogen management on a strict requirement on the amount of nitrogen applied per crop fails to take into account the many factors that influence the potential for nitrogen leaching, such as soil type, timing of application, method of application, etc. It is undoubtedly more important to apply nitrogen at the correct time for the crop and in the correct manner than to focus a grower's efforts on the total amount applied.	

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	For this reason, the development and implementation of BMPs to minimize nitrogen leaching, which may include N ratio guidelines, would provide better management of nitrogen leaching than strict N ratios that fail to consider a number of other factors.	
Comment No. 321 from California Strawberry Commission. Letter No. 83, p.13. Monitoring/Reporting	Monitoring and Technical Report Requirements Exceed Central Coast Water Board's Authority. Parts D and E include a number of provisions that would require monitoring and submittal of technical reports from irrigated agricultural operations on the Central Coast. Most of the proposed provisions are inappropriate as they exceed the Central Coast Water Board's authority to require such information and/or require the submission of confidential, proprietary information… the Central Coast Water Board has the burden of explaining to the discharger the need for the information and for identifying substantial factual evidence that supports requiring the reports, i.e., demonstrates a nexus between the requested information and the Central Coast Water Board's statutory authority to investigate water quality.	Regarding references to Water Code section 13267 please see response to Letter 79 (Comment No. 505).
Comment No. 322 from California Strawberry Commission. Letter No. 83, p.14. Monitoring/Reporting (Water Code section 13267)	Provision 48 Improperly Requires Individual Discharge Monitoring. This provision would require Tier 3 dischargers to conduct individual discharge monitoring in compliance with the Draft MRP. This is an unnecessary requirement that exceeds the Central Coast Water Board's authority under Water Code section 13267. Section 13267 requires that the Central Coast Water Board's request for technical information be reasonable as compared to the burden of compiling the information, including the cost. Further, the request for such information must be supported by evidence as to why the information is necessary.	Staff disagrees that this is an unnecessary requirement. Given the extent and nature of the water quality problem, the tiered approach, requiring only a small subset of dischargers (larger scale operations) to conduct individual monitoring, is reasonable. The information is necessary to establish accountability and to provide information about pollutant sources. Also, see response to Letter 79 (Comment No. 505.)

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Comment No. 324 from California Strawberry Commission. Letter No. 83, p.27. Monitoring/Reporting	Finding A59 Improperly References an Un-Adopted Water Quality Objective. This finding states that the drinking water standard is not intended to protect aquatic life and that Central Coast Water Board staff estimate that I mg/L nitrate is necessary to protect aquatic life beneficial uses. However, the use of this I mg/L nitrate standard is not a proper water quality standard and is not an objective adopted in the Basin Plan. Finding A61 Improperly References an Un-Adopted Water Quality Objective. This finding states that more than 60 percent of all sites in the region have average nitrate concentrations that exceed the drinking water standard and limits necessary to protect aquatic life. However, the Central Coast Water Board seemingly refers to the same pseudo water quality objective referenced in Finding A59, which is not a legally adopted objective. As noted in comments regarding Table lA, indicator values in the Draft Waiver are not legitimate water quality objectives established through the basin planning process. Thus, reference to "limits necessary to protect aquatic life" must be deleted.	The Central Coast technical report establishing an approach for protection of aquatic life from eutrophication has been peer reviewed through the SWAMP program, and has gone through both State Board and U.S. EPA review and approval as part of the 2010 303(d) List approval process. In the listing process, nitrate exceedance of 1 mg/L is used in conjunction with other measures of biostimulation, like low dissolved oxygen levels and excessive algal cover, as multiple lines of evidence to determine impairment. Though this value is not a Basin Plan numeric objective, it can be used to interpret the narrative objective for biostimulatory substances, and is a useful reference for understanding the concentrations around which eutrophication can become a concern. It is typically higher than limits that have been proposed and/or adopted elsewhere for the same purpose.
Comment No. 325 from California Strawberry Commission. Letter No. 83, p.28. Monitoring/Reporting	Table 1A Unlawfully Includes Indicators of Narrative Objectives. The inclusion of "Indicators of Narrative Objectives" in this table represents an attempt by the Central Coast Water Board to establish de facto water quality objectives without going through the appropriate procedures. Water quality objectives are defined to mean, "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water .. " (Wat. Code,§ 13050(h).) Porter-Cologne requires each regional board to establish water quality objectives in Basin Plans, and to adopt the Basin Plans through a public hearing	These numeric indicators are allowed and appropriate as numeric expressions of narrative water quality objectives. They may appropriately be used to characterize water quality problems, prioritize geographic areas or types of discharges to target staff resources for further investigations, compliance determinations in conjunction with other compliance information (such as that requested to be submitted in the annual compliance reports in the Draft Order). These indicators are qualified, explained and referenced in the Draft Order. These indicators are based on scientifically peer-reviewed reports, were used as Listing Evaluation Guidelines,

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	process.(Wat. Code, §§ 13241,13244.) More importantly, when adopting water quality objectives, regional boards must comply with Water Code sections 13241 and 13242. Section 13241requires consideration of a number of factors including economics and feasibility of meeting the objective. (Wat. Code, § 13241(c), (d).) Section 13242 requires regional boards to adopt a program of implementation that is designed to meet the water quality objective.Table IA identifies many "Indicators of Narrative Objectives." For example, the Biostimulatory Substances objective includes an indicator of 1 mg/L of nitrate to protect aquatic life beneficial uses from biostimulation. (Attachment A, p. 33.) The source for this indicator is a technical paper prepared by Central Coast Water Board staff. This indicator has never been proposed or adopted as a water quality objective and is not listed as such in the Basin Plan. Thus, it has not been found to be necessary to reasonably protect the aquatic life beneficial use. Further, without going through the formal adoption process, it is impossible to know the economic impacts associated with meeting this objective, and whether it can reasonably be achieved. The Central Coast Water Board cannot ignore its legal responsibility to adopt water quality objectives pursuant to Porter-Cologne simply by claiming they are "Indicators of Narrative Objectives." Unless and until the Central Coast Water Board adopts these pseudo water quality objectives pursuant to the law, these "indicator" values identified are unlawful and must be removed from Table IA. Only actual water quality objectives adopted legally into the Basin Plan should be included in the tables, and all others must be deleted, as they represent unlawfully adopted water quality objectives.	consistent with the State's Listing Policy, approved as an appropriate value to determine if a waterbody is violating water quality standards (through formal public and agency review process that is consistent with the State's Listing Policy and Clean Water Act Section 303(d); and/or were used as numeric targets in a Total Maximum Daily Load (also approved through formal public and agency review process that is consistent with the State's Policy for Addressing Impaired Waterbodies and Clean Water Act Section 303(d).
Comment No. 397 from California	Findings A66-A67 Unlawfully Equate Detections to	The Basin Plan general objective states "No individual pesticide

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Strawberry Commission. Letter No. 83, p.28. Monitoring/Reporting	Water Quality Objective Violations. These findings state that based on monitoring data, multiple pesticides and herbicides have been detected in Central Coast waterbodies and that this is a violation of the Basin Plan general objective for pesticides. This provision improperly assumes that "detection" is the equivalent of or means there is necessarily an impact to a beneficial use. A mere "detection" does not equal impairment to a beneficial use or violation of a water quality objective. In discussing the objectives for pesticides, the Central Coast Basin Plan states, "No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life .. " (Basin Plan, chapter II, p. I1I-4.) These findings make collectively the inappropriate leap that merely because the identified pesticides and herbicides have been detected that they are therefore adversely affecting beneficial uses in that waterbody. There is no support for this conclusion, and no additional analysis or evidence to suggest this is the case. Thus, the findings should be deleted.	or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life." In Central Coast water bodies, detections of pesticides have been in fish and invertebrate tissue and sediment as well as in water, and these detections represent an increase over background concentrations and are therefore a violation of the Basin Plan general objective. Recent sediment sampling data collected by the CMP shows pyrethroid chemicals pervasive in sediments in agricultural areas. These chemicals are relatively recently licensed - they are not "legacy" chemicals such as DDT - and their presence in sediment indicates an increase over "background" conditions. Therefore, their detection represents a violation of the Basin Plan General objective. Similarly, a recently released report on pesticides and toxicity in Central Coast lagoons (http://www.ccamp.org/ccamp/documents/EstuariesFinalReport022311.pdf) found several currently applied pesticides detectable in fish tissue in the Santa Maria lagoon. This represents a violation of the General objectives because they are not considered "background" concentrations, such as low levels of DDT or PCBs might be. These pesticides in tissue have increased over background concentrations.
Comment No. 318 from California Strawberry Commission. Letter No. 83, p.1. Surface Water	While the CSC admits that agriculture may be contributing to some water quality impairments in the Central Coast, CSC declines to believe that it has caused the widespread harm portrayed by the Draft Waiver.	Both CCAMP and CMP monitoring programs clearly show extremely high levels of nitrate and frequent toxicity at monitoring sites in areas that are dominated by irrigated agriculture, particularly in the lower Salinas and Santa Maria valleys. Many of the sites are located in areas that have few or no other upstream land uses that could generate these high levels of chemical concentrations.
Comment No. 319 from California Strawberry Commission. Letter No.	Findings must be based on specific evidence and may not be a statement based on rhetoric.	Findings are supported by references, data and other documentation.

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83, p.1. Surface Water		
Comment No. 641 from California Strawberry Commission. Letter No. 83, p.4. Surface Water	Finding 21 states that landowners and operators of irrigated lands who obtain a pesticide use permit *may* have a discharge of waste that could affect surface or groundwater, and therefore *must* submit a completed Notice of Intent (NOI) to comply with the Draft Waiver. Inherent in this finding is an improper presumption that simply because a landowner has obtained a pesticide use permit, that the landowner may have a discharge of waste. The Draft Waiver provides no information or evidence to support this finding. Conversely, pesticide use permits are issued for various pesticide applications, including use permits for pesticides and herbicides that are not typically considered to be present in irrigation return flows or migrate to groundwater. Thus, the presence of a pesticide use permit itself does not constitute evidence of a potential discharge of waste. The Central Coast Water Board has the authority to regulate "discharges of waste" from irrigated agriculture operations. (Wat. Code, § 13260.) However, the Central Coast Water Board does not have unfettered regulatory authority to regulate irrigated agriculture just because a pesticide use permit exists. Accordingly, this finding should be eliminated or amended to reflect that the Central Coast Water Board's authority does not extend to irrigation practices that do not result in a "discharge of waste."	Though use of a pesticide does not imply that that pesticide is discharged to surface water, studies by Hunt et al. (2005) showed that the risk of instream toxicity is correlated to pesticide application rate. The Water Board assumes that any person who obtains pesticide use permits, intend to use pesticides. The Water Board has significant evidence to support the conclusion that agricultural use of pesticides has resulted in discharges or threatened discharges to waters of the state, supporting the requirement to submit an NOI. The Staff Report Section 4, F. and Appendix G provide ample evidence that pesticides in areas with agricultural activities are causing or contributing to exceedances of water quality objectives for either specific pesticides (where the specific pesticides have been measured) or for toxicity from unspecified pesticides (which are known from pesticide use data to be applied to irrigated lands with runoff going into the receiving water bodies.
Comment No. 494 from California Strawberry Commission. Letter No. 83, p.25.	The time schedules and milestones identified in Provisions 97-101, and in the time schedule attachment, are aggressive and unreasonable. As indicated previously, significant research and study is needed to	The time schedules in conditions 97-101 and their equivalent in the time schedule attachment have been revised. They were not timeframes to comply with water quality standards in receiving waters. They were timeframes for discharges to reduce or

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Timing/Schedule	determine the effectiveness of BMPs, and the ability of certain BMPs to ensure compliance with water quality standards. There are no existing BMPs that can guarantee 100 percent compliance with water quality standards, 100 percent of the time, without greatly impacting the productivity of Central Coast agricultural operations. Also, the time schedules require only Tier 3 dischargers to demonstrate compliance with water quality standards while growers in other tiers are not held to the same standards. Such a requirement is arbitrary for it places all responsibility for water quality compliance on Tier 3 and fails to consider impacts by operators in other tiers.	eliminate waste discharges or pollution loading that may be causing or contributing to exceedances of the standards. Staff recognizes full compliance with water quality standards in receiving water will take more time. These conditions were replaced in the Draft Agricultural Order with conditions that state that timeframes refer to control of individual waste discharges control (now conditions 82-87, pages 28 and 29). Additionally, staff clarified milestones associated with these timeframes in condition 82 and Table 4 in the Draft Order, pages 28 and 35, respectively. Regarding achieving compliance with water quality standards in timeframes in Draft Ag Order, see responses to Letter 11 (Comment No 487) and Letter 32 (Comment No. 488). Regarding BMPs, the Draft Ag Order requires discharges to demonstrate effectiveness of management practices to show that an operation is not causing or contributing to pollutant loading into surface or groundwaters and as one of many factors considered when ensuring compliance with water quality standards (see Condition 82, page 28). Several operations and grant-funded projects that implemented management practices to improve water quality determined effectiveness of the practices using measurements, estimations, or simple modeling of pollution load reduction in a few months to 2 year timeframe, without multi-year research and study. See the rationale for timeframes in Staff Report, Section 3.C. In Morro Bay, where the nitrate concentrations increased to unsafe levels in the City's drinking water supply well, nearby farms reported measured nitrogen budget factors during one planting season (months) to demonstrate greater than 50 percent reduction in nitrogen applications to crop fields. For examples of grant funded projects, the Santa Cruz RCD's

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		Annual Report for 2008-2009 (http://www.rcdsantacruz.org/media/annual_reports/annualreport_newsletter08_09.pdf) reports that results of the Livestock and Land Program, in partnership with Ecology Action, include "… 11 demonstration sites were completed during this most recent grant term and represent over 1.76 square miles and approximately 1200 head of cattle and 47 horses. Of these, four sites in Santa Cruz County were evaluated using a sediment load reduction modeling tool also developed during this grant cycle. The results of the modeling indicated that a total of 49 tons of manure were properly managed from the four sites, 210 lbs of nitrogen were diverted and 0.9 tons of sediment was kept from our waterways." While there may or may not be "existing BMPs that can guarantee 100 percent compliance with water quality standards, 100 percent of the time, without greatly impacting the productivity of Central Coast agricultural operations," staff discussed and referenced multiple practices and operational changes that are known to be effective for reducing pollutant loading to surface water and groundwater from agricultural operations in the Staff Report Appendix D, Options Considered, Section V. Options for Management Practices or Other Discharge Controls and Section VI. Options for Riparian and Wetland Area Protection Requirements. Given the severity of the pollution in the receiving water bodies in agricultural areas and the current continuous use of large amounts of pesticides and fertilizers at operations in these areas, dischargers can and should demonstrate implementation and effectiveness at reducing pollution loading in one- to five-year timeframes. This is critical to insure the Ag Order is, in fact, progressing towards measurable water quality improvement and getting closer to meeting water quality objectives. The Draft Ag Order timeframes and associated milestones are reasonable for these reasons. See response to Letter 82 (Comment No. 637) related to this

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		comment about "arbitrary" to require only Tier 3 dischargers to demonstrate compliance on time schedules.
Comment No. 26 from Dow Agrosciences. Letter No. 84, p.5. Aquatic Habitat/Buffers	Dow AgroSciences and others have researched, supported, and promoted the use of vegetative buffers and their importance in controlling residue run off. Therefore, we support reasonable efforts to provide for such mitigation strategies. However, this waiver should be amended to reward and encourage such buffer vegetation rather than making it a regulatory requirement.	Comment noted.
Comment No. 457 from Dow Agrosciences. Letter No. 84, p.3. Implementation (Tiers and the disruption of pest mgmt programs)	These data reinforce that the mere "use" of a pesticide should not be a distinguishing criteria for onerous restrictions and conditions that do not directly address the issue of concern, but do likely contribute to changes and disruptions of Integrated Pest Management programs.	Staff has been focusing on the pesticides that are currently being found in waters of the state. Staff agrees that some operators/growers will look for compliance by switching products, which is certainly not the intention of the Order. Due to the extent of the region that is being regulated, the complexities in farming operations, and high number of growers, staff has prioritized the issues focusing on the most severe and urgent problems to be solved. Staff believes that the elimination of diazinon and chlorpyrifos from the waters of the state is one of the most urgent and severe problems and require immediate attention.
Comment No. 458 from Dow Agrosciences. Letter No. 84, p.4. Implementation	It is Dow AgroSciences' position that the focus should be management of irrigation run-off as the key transport mechanism for multiple stressors of concern including pesticides, nutrients, and sediment.	Water Board staff recognizes irrigation water runoff as one of the most important mechanisms for transporting constituents from the farm land to the waters of the state. However, there are other transporting mechanisms of water that could also contribute to the movement of constituents and surface water impairment, such as: stormwater, water drained through tile drains and subsurface drainage systems, and drift of pesticides. Also, the leachate of nitrates below the root zone, due to irrigation water deep percolation, is considered the most important transporting mechanism, which contributes to groundwater nitrate impairment.

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Comment No. 459 from Dow Agrosciences. Letter No. 84, p.5. Implementation (Enzymes, PAM and Landguard)	Considerable research has also been conducted on the use of flocculating agents such as polyacrylamide (PAM) and degradative enzymes such as Landguard™ that can reduce chlorpyrifos levels in irrigation water run-off. The ability to use these mitigation tools should be an important component of mitigation measures permitted under the waiver.	Please see response to Letter 7 (Comment No. 166).
Comment No. 460 from Dow Agrosciences. Letter No. 84, p.5. Implementation (Support for IPM efforts)	Additional improvements need to be made, including continued efforts to create awareness as well as development and adoption of innovative mitigation measures consistent with Integrated Pest Management goals. A reasonable and pragmatic approach should be supportive of such goals without adversely impacting the agricultural economy of the region.	Comment noted.
Comment No. 326 from Dow Agrosciences. Letter No. 84, p.1. Pesticides/Toxicity	Experience in other watersheds has shown that overly conservative restrictions on one group of pest management compounds, as exemplified by the focus on chlorpyrifos in this draft, only shifts the issues to another group of compounds without addressing the root cause.	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become equally problematic they may be added to requirements for individual discharge monitoring. At this point staff is using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase staff's ability to detect problems associated with pyrethroid pesticides, we have replace algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional chemicals or toxicity tests as necessary.
Comment No. 327 from Dow	Even though the cropping patterns and pesticide use	Staff acknowledges that "use" doesn't necessarily result in water

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Agrosciences. Letter No. 84, p.2. Pesticides/Toxicity	scenarios with chlorpyrifos are very different in the San Joaquin Valley, analysis in that area also corroborates this lack of relationship between amount of use and exceedances…These data reinforce that the mere "use" of a pesticide should not be a distinguishing criteria for onerous restrictions and conditions that do not directly address the issue of concern,	quality impact. However, studies by Hunt et al. (2005), conducted in the Central Coast Region (not Region 5) showed that intensity of use was correlated with in-stream toxicity, and therefore is an indicator of risk.
Comment No. 328 from Dow Agrosciences. Letter No. 84, p.4. Pesticides/Toxicity	Growers are compelled to select either individual farm monitoring or participate in a regional cooperative monitoring program. Dow AgroSciences' experience with other water monitoring efforts throughout the state and elsewhere compels our support of an organized region-wide monitoring program. …Further, a scatter of data taken by individual farmers inconsistent with monitoring protocols will not assess the water body, will not be part of a descriptive monitoring database, and will not be scientifically useful.	Staff agrees that receiving water monitoring is most effectively and efficiently undertaken as a regionalized program. However, the Board cannot compel growers to participate in a cooperative program and have to give them the alternative of monitoring their receiving water individually.
Comment No. 329 from Dow Agrosciences. Letter No. 84, p.4. Pesticides/Toxicity	This concern also relates to the unreasonable requirement that all Tier 3 farms would be required to do on-farm monitoring, and in drains within a week of chlorpyrifos use. Analyses that focus solely on one chemical obviously overlook and would fail to identify other sources of surface water toxicity, particularly if growers simply shift products used.	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become equally problematic they may be added to requirements for individual discharge monitoring. At this point staff is using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase staff's ability to detect problems associated with pyrethroid pesticides, staff has replaced algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional

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		chemicals or toxicity tests as necessary.
Comment No. 330 from Dow Agrosciences. Letter No. 84, p.4. Pesticides/Toxicity	Water quality standards for the protection of aquatic life established for chlorpyrifos and diazinon and expressed as chemical concentrations are applicable only to surface water aquatic life habitat receiving discharge, not the discharge itself.	The Draft Order requires discharges to attain water quality standards in the receiving water, consistent with regulation of other nonpoint source discharges.
Comment No. 331 from Dow Agrosciences. Letter No. 84, p.4. Pesticides/Toxicity	As to the proposed provisions on pesticides, we understand the derivation of the unnecessarily low limit on chlorpyrifos of 0.025 µg/l and the use of Ceriodaphnia dubia as a standard US EPA toxicity test species. … Therefore this limit should be interpreted as a conservative protection level but not a level that predicts the occurrence of adverse effects if exceeded. There are multiple lines of evidence indicating this predictive value is considerably higher than 0.025 µg/l. A reasonable alternative of 0.10 µg/l has been proposed, taking into account all available information3.	The LC50 for chlorpyrifos of 0.025 ug/L used here is consistent with the rest of the State for 303(d) listing purposes.
Comment No. 27 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.5. Aquatic Habitat/Buffers	The existing Conditional Waiver expresses no vision for maintenance of vegetated buffer areas between farm fields and aquatic habits, despite the fact that such buffers help filter pollutants from entering waterways. In fact, with the current focus on 'food safety' there are documented cases of removal of riparian vegetation. The riparian corridor along our creeks and rivers is the ultimate vegetated buffer before runoff enters our open waters. These riparian areas offer many public benefits including improvement of water quality.	Comment noted. Regional Board staff acknowledges the importance of vegetated buffers and riparian areas and have included conditions in the proposed Order.
Comment No. 28 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.9.	The February Draft Order included protections for riparian areas adjacent to any discharger. The November Draft Order proposes that Water Quality Buffer Plans only be required for farms immediately "adjacent" to temperature, sediment and turbidity 303(d)	Water Board staff recognizes that riparian vegetation creates multiple benefits and water quality protections. However, Water Board staff prioritized Water Quality Buffer Plans for Tier 3 dischargers with large acreages directly discharging to waterbodies already impaired by pollutants that are most-

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Aquatic Habitat/Buffers	listed water bodies. This criterion unreasonably limits protections granted to and by riparian buffers. Riparian buffers offer water quality benefits to all water bodies and not only those that are 303(d) listed… Riparian buffer protections for all water bodies are necessary for the Conditional Waiver to be consistent with the Central Coast Region Basin Plan and for the Conditional Waiver to be "in the public interest."	effectively treated or controlled by vegetated buffers, including sediment, turbidity and temperature. Water Board staff considers this a reasonable starting point. The benefits and limitations of vegetative buffers at addressing multiple pollutants and providing multiple water quality benefits are discussed in Appendix D and G of the Staff Report.
Comment No. 398 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.2. General (Draft Agricultural Order)	The November Draft Order does not, however, contain adequate mechanisms to address the degraded state of our central coast waterways, which in some ways are worse than they were in 2004. In particular, the November Draft Order falls short of the previous Draft Order released in February 2010 (February Draft Order). The February Draft Order does comply with state and federal laws and is adequate to protect water quality. We therefore urge your Board to simply adopt the February Draft Order. In the alternative, the November Draft Order should be revised to incorporate necessary provisions of the February Draft Order. It is well past time to move forward with a revised Conditional Waiver for the Central Coast Region. In comments that were provided to your Board in April 2010, we offered additional suggestions to make the February Draft Order even more protective of water quality, drinking water standards, associated public trust resources and the wider range of beneficial uses. Those comments are attached and incorporated herein, by reference, in their entirety.	The proposed Order, like the 2004 Ag Order, complies with Water Code section 13269. It would require dischargers to comply with the Basin Plan and other applicable water quality standards and State Water Board plans. Generally, the Water Board may not specify the manner of compliance, but can require dischargers to develop and implement management practices and conduct monitoring to assure compliance and to evaluate the effectiveness of the waiver conditions.
Comment No. 670 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.2.	The November Draft Order does not, however, contain adequate mechanisms to address the degraded state of our central coast waterways, which in some ways are worse than they were in 2004. In particular, the	See response to Letter 16 (Comment No. 660) by Dana Perls, Pesticide Watch.

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General (Feb 1, 2010 Preliminary Draft)	November Draft Order falls short of the previous Draft Order released in February 2010 (February Draft Order). The February Draft Order does comply with state and federal laws and is adequate to protect water quality. We therefore urge your Board to simply adopt the February Draft Order. In the alternative, the November Draft Order should be revised to incorporate necessary provisions of the February Draft Order. It is well past time to move forward with a revised Conditional Waiver for the Central Coast Region.	
Comment No. 671 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.6. General (Education)	The February Draft Order Improved Upon the Existing Conditional Waiver. We support an emphasis on clear standards and timelines, as opposed to an emphasis on training and education. The RWQCB is a regulatory agency, bound by the requirements of the Clean Water Act; there are multiple agencies and organizations – such as the Natural Resources Conservation Service (NRCS) and UC Davis – offering practical advice to growers. The RWQCB should set standards and targets and let the growers decide how to meet them.	Staff considers education valuable for the purpose of assisting growers with appropriate implementation that will reduce their pollution loading and improve water quality. However, Staff does not consider education an important action to track or enforce and has removed the education requirements from the revised Draft Order. Also, see response to Letter 2 (Comment No. 658).
Comment No. 399 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.7. General (Draft Agricultural Order)	The November Draft Order does not comply with the requirements described above.[Note from staff: The word requirements in this comment letter refers to several preceding paragraphs citing and quoting the Central Coast Water Quality Control Plan or Basin Plan, and Water Code Sections 13000, 13001, 13260, 132623, and 13269.]	See legal responses to Letter 79.
Comment No. 645 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.11. General (Point of compliance)	Point of Compliance to Numeric and Narrative Standards. The February Draft Order was very clear that the point of compliance to standards was where tailwater leaves a property (a double asterisk in Table 1A indicated that the criteria must be met in irrigation runoff). This appears to have been significantly changed	The Water Board is required by the Porter-Cologne Water Quality Control Act (Water Code Div. 7) to protect waters of the state for their beneficial uses. Narrative and numeric state adopted water quality objectives and federal water quality criteria are established at a level to protect the beneficial uses in the receiving waters. The existing 2004 Ag Order and the proposed order require

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	in the November Draft Order. The November Draft Order does not include individual discharge "limits" or requirement for owners/operators to demonstrate compliance with numeric water quality standards in individual discharge at the point where water leaves the farm (but requires monitoring and reporting at this point for Tier 3 dischargers). Instead, the November Draft Order relies too heavily on ambient water quality. This application of standards is subjective and essentially unenforceable. If there is a hydrological connection between tailwater and a water of the State, narrative and numeric standards should be applied at the point where the tailwater leaves the property. The November Draft Order may simply mean to indicate that water could be moved *within* a property without being considered a discharge. However, the Conditional Waiver must clearly indicate that the point of compliance is where the discharge leaves the farm property. It should be made clear that in most cases, the tailwater monitoring point and the point of compliance are the same. Our support of any Order is dependent upon the Order being enforceable through the application of numeric and narrative standards at a specific point of compliance.	compliance with these water quality standards. At the time any waste discharges to waters of the state, it may only be discharged at a level that does not cause or contribute to exceedances of the water quality standards in the receiving water.
Comment No. 401 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.12. General (Enforcement)	The Draft Order must set forth clear guidelines on how RWQCB will enforce the Conditional Waiver. The November Draft Order is weak in outlining how a clear chain of evidence that would lead to effective enforcement will be gathered. The enforcement clause in the Conditional Waiver should be the same or very similar to that found in individual Waste Discharge Requirements (WDRs).	The general guidelines and approaches are described in the State's Enforcement Policy and Nonpoint Source Pollution Control Policy. Specific triggers and approaches to enforcement are not typically included in permits or orders. Further, see discussions of compliance and enforcement, staffing costs and resources and improving efficiency of data and information use and management: Staff Report Section 2, Staff Report Appendix I: Background; Staff Report Appendix F: Cost Considerations, Section 2.3 and Appendix D. Options Considered, Section VII.D. Agricultural Regulatory Program Enforcement and Implementation; Agenda Item No. 12 for September 2, 2010

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		Water Board Meeting at: http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2010/sep/item_12/stfrpt_12.pdfAppendix.]
Comment No. 461 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.5. Implementation (stormwater)	The current program lacks standards and mechanisms pertaining to stormwater discharges. Crops such as strawberries are especially problematic, as ground is covered with impervious plastic during the rainy season which increases water volumes and velocities running through furrows and ditches – especially on steeper slopes. Grapes are also difficult, as rows are planted with little regard to slope. There is particularly a gap in the current program when it comes to stormwater discharges from fallow agricultural fields. BMPs are frequently not implemented when agricultural fields are not in operation. From a stormwater quality perspective, fallow agricultural fields present a similar risk to surface water quality as would a large construction site.	All tier 2 and tier 3 discharger requirements, targets, and milestones summarized in Table 5, regulate both stormwater and irrigation water discharges.
Comment No. 332 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.4. Monitoring/Reporting	While the CMP has produced useful data, a critical weakness in the existing Conditional Waiver is a lack of individual discharge monitoring. Ambient data produced through the CMP does allow the RWQCB and stakeholders to identify general long-term water quality trends; however the data does not allow anyone to identify specific sources of pollution.	Comment noted
Comment No. 333 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.4. Monitoring/Reporting	Due to diurnal fluctuations in dissolved oxygen, measurements collected in the middle of the day do not accurately diagnose potential anoxic conditions and are actually misleading. In order for such measurements to be valid they must occur during periods when dissolved oxygen can be expected to be at a minimum, usually before dawn.	Staff agrees that 24-hour or pre-dawn monitoring is useful for determining the “worst cast scenario” for oxygen concentrations. In evaluating waters for listing purposes, staff uses an upper end value for oxygen concentration (>13 mg/L) that is indicative of eutrophication and that can be used as part of the weight of evidence to support listing. This helps staff assess data collected at mid-day from sites with widely swinging oxygen concentrations,

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		from the standpoint of impairment.
Comment No. 334 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.5. Monitoring/Reporting	Water quality data that is received by Central Coast Region staff is not always complete or available in a useful format. Part of this problem stems from a lack of on-farm data. The information also has not been made generally available to the public.	The CMP water quality data is delivered in the format the Board requires (including QA documentation). This format is compatible with the Surface Water Ambient Monitoring Program, the California Environmental Data Exchange Network, and the Board's website and 303(d) listing requirements. Because of this, data has been used for 303(d) listing and is available on the CCAMP website to the public.
Comment No. 335 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.8. Monitoring/Reporting	We understand that research indicates that Diazinon and chlorpyrifos are serious problems, and that the RWQCB has designated certain waterways as impaired for these specific chemicals. However, most toxicity on the Central coast is of an unknown chemical origin. Further, the synergistic impacts of various chemicals have not been studied. We believe that a focus on generic "toxicity" is most protective of human and aquatic health. Little will have been achieved if Diazinon and chlorpyrifos are eliminated but toxicity still exists.	See response to Letter 15 (Comment No. 247).
Comment No. 336 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.10. Monitoring/Reporting	Neither the CCAMP nor CMP water quality monitoring programs collect "peak" temperature measurements. Monitoring for these programs may occur early in the morning or late in the afternoon when peak temperatures would not be expected to occur. Since the Central Coast Region has relied heavily on CCAMP and CMP monitoring to make 303(d) listing decisions, it is likely that many existing temperature water quality impairments remain undocumented.	It is possible that some temperature peaks will be missed by the regional monitoring approach, but we also rely upon data from other sources for 303(d) listing purposes. CCAMP will be deploying temperature recording devices at all of the rotational monitoring sites starting this year.
Comment No. 337 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.10.	Neither CCAMP nor CMP water quality monitoring programs currently collect measurements (other than turbidity) that are directly used to evaluate for sediment or sedimentation impairments. Therefore it is highly likely that many sediment impaired water bodies are not	Several parameters are collected by both programs that can be used in support of a sediment listing, through the habitat assessment done in association with bioassessment (e.g. embeddedness and D50 pebble count) and total suspended solids measurements. CCAMP is evaluating the Board's own

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Monitoring/Reporting	listed on the 303(d) list, and there is currently no plan in place to improve their detection.	sediment assessment approach this year to determine if and how staff needs to augment this information with additional sediment assessment activities to better support the listing process.
Comment No. 338 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.10. Monitoring/Reporting	The Draft Order should specify how new listings and delistings from the List of Impaired Waterbodies will be handled. Within the five-year term of the Order there will be two new lists. New listings should require adjacent growers to comply with appropriate sections of the Order. Likewise, growers who improve their water quality and who are adjacent to delisted waterbodies should be rewarded for their efforts and should be relieved of appropriate requirements.	Staff agrees that requirements of the Order should be tied to listings and delistings on the 303(d) list. The monitoring program is designed to accumulate sufficient data to make delistings possible, should they be warranted. Staff has based the list of waterbodies for required monitoring sites on those that are impaired by chemicals or conditions associated with agricultural activities. This list has grown since the 2004 Order because of new listings. Should new waterbodies be added to the next list that is not currently addressed by the program, the Executive Officer has the authority to amend the MRP to address those new waterbodies.
Comment No. 339 from Env. Defense Center, Mont. Coastkeeper, Ocean Conservancy. Letter No. 85, p.10. Monitoring/Reporting	We believe a true third party should be contracted to conduct CMP water quality monitoring, and an independent consultant should provide interpretation of the results. At the very least, as was required in the February Draft Order, the CMP should be carried out transparently, and data should be delivered on time. The board and management of the third party should not be dominated by any stakeholder group. Guidelines should specify that data be publicly available within 30 days of the end of the quarterly reporting schedule. Guidelines should also specify that any follow-up monitoring be publicly available within a similar timeframe.	Data and finalized reports for the CMP are available to the public upon request through our office, as are other discharger data and reports. Other dischargers conduct “self-monitoring”, often through a consulting organization as is the case with the CMP. Unlike most other dischargers, data is available electronically with QA documentation, and is available on the web at www.ccamp.org. Because of the comprehensive data reporting requirements, staff allows for a full quarter for data to be formatted, checked and delivered through our data checker, which is reasonable. Follow-up data is delivered on the same timeframe.
Comment No. 29 from Rincon Farms, Inc. Letter No. 86, p.4. Aquatic Habitat/Buffers	The proposed “water quality buffer plan” in the waiver draft should not necessarily apply to any of us that farm next to the Salinas River because for most of us, we do not discharge any water into the Salinas River just because we are adjacent to it!	See response to Letter 15 (Comment No. 8).

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Comment No. 102 from Rincon Farms, Inc. Letter No. 86, p.3. Economics	p.3: Organic farming has its niche, but costs50 percent more in all inputs with typically 20 percent lower yields for about 10 percent higher water requirements. This is a 35 percent decrease in efficiency of crop yield per acre-foot of water used.	Comment noted.
Comment No. 103 from Rincon Farms, Inc. Letter No. 86, p.4. Economics	p.4: The EIR is wrong to say that there is less significant impact if ground is converted these ways because it doesn't mention the local economic impact as actually quite a severe environmental impact (as the Salinas Valley Water Coalition proved in court in the 1990's against the Monterey County Water Resources Agency about forcing farmers to outlay enormous expense just to measure water use). The EIR mentions that our fuel bills are also burdensome; indeed they will be with projected $5.00 per gallon fuel costs in the near future (fuel and fuel related costs are a large majority cost of our cropping budget); thus, we won't be able to absorb any excess costs like the current draft waiver will create!	Comment noted.
Comment No. 104 from Rincon Farms, Inc. Letter No. 86, p.5. Economics	p.5: We have to rent our land over long term commitments of five to ten years with options in order to secure long term relationships with our shipper. To suggest that we change our farming practices to conform to this draft will not necessarily cause farmers to "sell their land" as the EIR mentions because we don't really own much of it! …more likely is we would simply get foreclosed on by the banks, shut the business down, go broke, cause a loss of hundreds if not thousands of related jobs, breaking up of family structure and communities; and the state of California as a whole loses the control…of what kinds of food it produces for this nation.	The proposed Order would not require change in farming practices; rather like the 2004 Ag Order, it would require dischargers to implement existing, new, or revised management practices to treat or control discharges of waste to waters of the state.
Comment No. 106 from Rincon Farms, Inc. Letter No. 86, p.5.	With the average age of California farmers now at57 years old, it is very clear that high costs and red tape	Comment noted.

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Economics	from over-regulation similar to the likes of the draft ag waiver is what is causing young adults not to want to nor be able to start a farm or buy into an existing farm.	
Comment No. 105 from Rincon Farms, Inc. Letter No. 86, p.5. Economics	Also, the loss of farm income tax revenue to California because of the proposed 1000-foot buffer zones adjacent to "known water bodies" alone would be disastrous..How do we stay alive…if the majority of my farm may be in this proposed buffer zone	Water Board staff has clarified the requirements for Water Quality Buffers. The proposed Order does not require 1000 foot buffer zones. The proposed Order would require Tier 3 dischargers in certain circumstances to prepare a water quality buffer plan or document other methods the grower uses to control discharges of waste to waters of the state.
Comment No. 149 from Anchorpoint Christian High School. Letter No. 87, p.1. Groundwater	Comment documents ongoing costs associated with nitrated impacted water supply well in the Gilroy area. Comment requests continued sharing of information regarding nitrate impacts and development of regulations to address the problem instead of placing the burden of costs on water supply users as a result of nitrate impacts caused by others. Individual making the comment also requests to be contacted by representative from our agency.	Comment noted.
Comment No. 142 from Anchorpoint Christian High School. Letter No. 87, p.4. Groundwater (Monitoring)	b) In addition, it is unclear how compliance for drinking water standards for groundwater will be met. The Regional Board must focus not just on regulation but on actual outcomes, and hence must identify where the contamination is arising. We feel strongly that the point of compliance for drinking water standards must be the discharger's farm, as this will help to find sources of contamination.	Please see responses to Letter 16 (Comment No. 175).
Comment No. 30 from Grower Shipper Association. Letter No. 88, p.4. Aquatic Habitat/Buffers	Also disconcerting are the riparian vegetation mandates that contradict nationally-recognized and customer-required food safety practices. This waiver will reverse some of the major food safety improvements we've worked hard for over the past five years.	See response to Letter 79 (Comment No. 4).

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Comment No. 107 from Grower Shipper Association. Letter No. 88, p.2. Economics	EQIP is mentioned as a funding resource for growers. However, it's important the Board understands that the EQIP program oversees a limited amount of money. Not every grower that would need funding would be able to participate in the program and there are income limitations in some situations. Please do not consider EQIP to be an across□the□board offset of grower costs.	Consistent with Water Code section 13141, Appendix F identifies potential sources of funding. Staff recognizes that sources of funding have conditions that must be met to receive the funding.
Comment No. 108 from Grower Shipper Association. Letter No. 88, p.3. Economics	p.3: We are concerned that Appendix F does not factor in lost acreage and/or customers due to extended riparian buffers. While the costs of installing such buffers is included in staff's analysis, the cost of buffering out further acreage (besides the 30 or 50 foot riparian buffer) for food safety purposes is not addressed. We ask that the board consider the tremendous costs of installing new vegetation that creates a major food safety complication, potentially eliminating some customers, and definitely eliminating usable land.	Current Draft Order requirements for Water Quality Buffers would affect operations posing the greatest risk to water quality (Tier 3 dischargers) and result in potential losses in productivity on the order of one percent over a period of years. As stated in Appendix F, staff considers these estimates to be higher than what may actually occur due to several assumptions reviewed on p. 29 of the Appendix.
Comment No. 109 from Grower Shipper Association. Letter No. 88, p.3. Economics	In Appendix F, 2.2.2.4.3 the staff refers to Management Cost Estimates from the Central Valley Region. Please do not use these cost estimates to determine Central Coast costs. The Central Valley has significantly lower acreage rent and mostly grows crops not under the purview of the Leafy Green Handlers Marketing Agreement. Comparing grower costs in the Central Valley are related to land use, buffers, inputs, and more is like comparing apples and oranges.	Comment noted. Staff considers this example from another region of California to be a worthwhile comparison and does not use the example to describe the anticipated effects of the Draft Order.
Comment No. 110 from Grower Shipper Association. Letter No. 88, p.3. Economics	In our calculation of the February Staff Draft we learned that lost tax revenue is between $19,624,441 and $25,326,816 with 2,572 to 3,320 jobs lost. Staff's findings…of "A range of approximately $774K to $2.2M of gross value would be lost to riparian buffers region-	Comment noted.

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	wide, based on this analysis" is considerable. Our economic analysis will look to equate staff's findings and our own to lost tax revenue and lost jobs.	
Comment No. 111 from Grower Shipper Association. Letter No. 88, p.3. Economics	Staff's finding that "Lost income to an individual grower, while not known, is a fraction of gross value lost, since the grower avoids costs of farming areas no longer in production" does not look at the bigger question, being: how much lost tax revenue for our local governments and how many jobs are lost due to these substantial buffers? We believe our analysis will show each of these losses to be considerable.	Staff presents information on this "bigger picture" in the discussion in Section 3 of Appendix F.
Comment No. 340 from Grower Shipper Association. Letter No. 88, p.1. Surface Water	We don't have a strong characterization of what sources are contributing to impairment and exactly when or were it is occurring.	This very concern is a major reason staff believes that individual monitoring is necessary.
Comment No. 31 from National Marine Fisheries Service. Letter No. 90, p.3. Aquatic Habitat/Buffers	For Tier 2 and Tier 3 monitoring, NMFS recommends that individual riparian and wetland photomonitoring be required for operations adjacent to a water body listed as impaired by nutrients, pesticides or toxicity in addition to those listed as impaired by temperature, turbidity or sediment conditions.	Comment noted. There are very few waterbodies in the agricultural areas of the Central Coast Region that are impaired only for temperature, turbidity, or sediment. Most waterbodies in agricultural areas are also impaired for nutrients and or pesticides and toxicity as well. Therefore, photomonitoring requirements, as currently included in the Draft Agricultural Order will document conditions for most waterbodies impaired by nutrients, pesticides or toxicity as well. Also see response to Letter 85 (Comment No. 28).
Comment No. 33 from National Marine Fisheries Service. Letter No. 90, p.3. Aquatic Habitat/Buffers	A requirement to measure the size and determine the quality of the riparian or wetland area could be established at a less frequent interval, such as the once every three years proposal in the Draft Order. Getting dischargers into the habit of paying attention to the condition of their riparian areas and gathering timely information to use in management decisions will lead to	Comment noted.

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	subsequent improvements to the water quality parameters these areas influence.	
Comment No. 32 from National Marine Fisheries Service. Letter No. 90, p.3. Aquatic Habitat/Buffers	Additionally, for Tier 2 and Tier 3 properties, photomonitoring should be required annually and should include the listed water bodies as well as associated perennial and intermittent tributaries.	Staff agreed and revised the MRP wording to include perennial and intermittent tributaries in the requirement.
Comment No. 34 from National Marine Fisheries Service. Letter No. 90, p.4. Aquatic Habitat/Buffers	Tier 3 dischargers are required to prepare a Water Quality Buffer Plan if they are within 1000 feet of a water body listed as impaired for temperature or turbidity. This requirement should be expanded to include listings for impairments by sediments, nutrients, pesticides and toxicity. As mentioned in our comments on the February 2010 Preliminary Draft Order dated April, 2010 (Attachment A), properly sized and Developed riparian areas are important in preventing the drift of pesticides into waterways During application and there arc 21 water bodies found on Table 3 of the Draft Order that Are not found on Table 1. However, it is also important to note that Table 1 includes 28 Water bodies that are listed as impaired by sediments, but not turbidity or temperature, and these include some streams listed as designated critical habitat for ESA listed salmonids such as Chorro Creek, Los Osos Creek and the San Benito River. These water bodies also need the protection that will come from the development of a Water Quality Buffer Plan.	There was an inconsistency with language in the MRP and language within the proposed Order. Staff has changed the wording to be consistent with the wording that is in the Order. With this change, the requirement is "required for a subset of Tier 3 Dischargers that are adjacent to a waterbody impaired for temperature, turbidity and sediment. Tier 3 dischargers that are adjacent to the creeks mentioned are required to submit a Water Quality Buffer Plan. Also, see response to Letter No. 85 (Comment No. 28).
Comment No. 35 from National Marine Fisheries Service. Letter No. 90, p.4. Aquatic Habitat/Buffers	NMFS recommends that Tier 2 dischargers should also be required to prepare Water Quality Buffer Plans… however the Water Board could prioritize the areas where additional Water Quality Buffer Plans are required initially to include those areas most impacted by agricultural operations such as the Lower Salinas and	See response to Letter 85 (Comment No. 28).

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	Santa Maria river areas and which are designated critical habitat for ESA listed salmonids.	
Comment No. 36 from National Marine Fisheries Service. Letter No. 90, p.5. Aquatic Habitat/Buffers	NMFS strongly disagrees with the revised minimum riparian buffer width recommendation of 30 feet provided in the Water Quality Buffer Plan. This width is not well supported in the scientific literature nor is it adequately supported in the Draft Order and its supporting documents… Therefore, NMFS reiterates its support for the February 20 I 0 provisions by resubmitting our April 1, 2010 letter as Attachment A.	The proposed action is to adopt a waiver of waste discharge requirements pursuant to Water Code section 13269, which requires the waiver's conditions to be consistent with the Basin Plan. The Basin Plan contains a requirement to have filter strips, and recommends a minimum width of thirty feet. Consistent with the Basin Plan, the draft Order includes "a 30 foot buffer width" as a minimum buffer width, but does not mandate use of buffers. It is up to the discharger to assure that discharges of waste do not impact beneficial uses; larger widths, or some other method of controlling discharges, may be necessary in some cases to protect water quality and beneficial uses.
Comment No. 37 from National Marine Fisheries Service. Letter No. 90, p.5. Aquatic Habitat/Buffers	The rate of nitrogen removal from surface and groundwater flow is extremely variable depending on local conditions including soil composition, surface versus subsurface flow, riparian zone width, and riparian composition (Mayer el al., 2005). In 2005, the USEPA conducted an extensive review to investigate the qualities of a riparian zone that effectively limit nutrient pollution (Mayer et al., 2005). A meta-analysis of all of the studies revealed that riparian zones removed nutrients through subsurface flow more effectively than surface flow (Mayer et al., 2005). Nitrate retention from surface runoff was related to riparian zone width, where 50, 75, and 90 percent surface nitrate retention was achieved at widths of 110 ft., 389 ft, and 815 ft respectively (Mayer et al. , 2005). This suggests that surface water infiltration in the riparian zone should be a priority to promote effective nutrient filtration.	Comment noted. The Draft Agricultural Order requires treatment and control of waste discharges that encourages infiltration in the buffer zone to promote nutrient removal. Also, see response to Letter 85 (Comment No. 28) and Letter 90 (Comment No. 36).
Comment No. 38 from National Marine Fisheries Service. Letter No. 90, p.6.	Mayer el al. (2005) also found that the composition of the riparian zone affected the efficiency of nutrient removal… This suggests that many studies may	See response to Letter 85 (Comment No. 28) and Letter 90 (Comment No. 36).

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Aquatic Habitat/Buffers	overestimate the long-term nutrient filtering capacity of riparian zones.	
Comment No. 39 from National Marine Fisheries Service. Letter No. 90, p.6. Aquatic Habitat/Buffers	Based on this review …The authors recommended including riparian zones on smaller streams to reiterate the importance of buffering the effects of nutrient delivery to upper headwater areas. In summary, most riparian zones reduce subsurface nutrient loading, but extensive distances are needed to reduce nutrients in surface runoff.	Comment noted.
Comment No. 40 from National Marine Fisheries Service. Letter No. 90, p.6. Aquatic Habitat/Buffers	The Draft Order describes the 30 foot minimum buffer width as a "good first step", but cautions that an increase in the minimum buffer width may become necessary in the future in order to better protect water quality. NMFS would like to point out that the scientific literature already dictates a larger buffer width in order to achieve a conservative level of protection. It will be exceedingly difficult and expensive to get an operation to move its infrastructure away from adjacent waterways and then move it again in a few years when a more scientifically rigorous buffer width is found to be necessary.	See response to Letter 90 (Comment No. 36).
Comment No. 41 from National Marine Fisheries Service. Letter No. 90, p.6. Aquatic Habitat/Buffers	Furthermore, the Draft Order states that minimum riparian buffer widths will not be required for ephemeral and artificial channels. Both ephemeral creeks and artificial channels transport pollutants to downstream waterbodies. Although often dry, ephemeral channels can accumulate fine sediments within the channel which can then become resuspended and delivered to perennial downstream waterbodies during subsequent storms or irrigation events. Many artificial ditches and agricultural drainage systems discharge directly to natural and often perennial waterways. Typically, these channels are not vegetated and therefore have little or no capability of absorbing or retaining pollutants.	Both the current 2004 Agricultural Order and the draft 2011 Order require discharges to comply with water quality standards, including controlling or treating discharges of waste to areas, such as ephemeral streams to protect those water bodies as well as downstream water bodies. Dischargers must protect all waters of the state.

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	'Therefore, in order to better protect water quality and other beneficial uses, NMFS recommends developing a required minimum buffer width for ephemeral and artificial channels.	
Comment No. 42 from National Marine Fisheries Service. Letter No. 90, p.7. Aquatic Habitat/Buffers	In addition, NMFS recommends adding the following sentence to item 66 in the Draft Order, "Absolutely no sidecasting of sediments into waterbodies is authorized as a result of agricultural practices (e .g., field leveling, raised bed preparation, road installation or repair, etc.)."	Such actions would be considered a discharge of waste and such discharges must be controlled.
Comment No. 463 from National Marine Fisheries Service. Letter No. 90, p.3. Implementation (Nitrate test strips monitoring for tier 1)	Regarding the requirements for Tier 1 monitoring, NMFS recommends that the Water Board add a requirement that Tier 1 dischargers document that their discharges arc free of excess sediment and nutrients. This can be accomplished through relatively inexpensive means such as nitrate test strips and photo monitoring of the discharge points, although turbidity monitoring of a discharge as a surrogate for suspended sediment monitoring is preferable. The Tier I dischargers would not need to report this information to the Water Board at this time, but should be required to record the results in their farm plan for future use if necessary. Just requiring the gathering of this information to inform on-farm decision making is likely to yield benefits to water quality.	Comment noted.
Comment No. 342 from National Marine Fisheries Service. Letter No. 90, p.4. Monitoring/Reporting	In order to provide a solid baseline, NMFS recommends the individual discharge monitoring requirements [or tail water, tile drain and stormwater discharges be more frequent during the initial implementation phase of the Draft Order.	Staff agrees that more data would provide a better baseline of information for future comparisons. However, individual monitoring is a new addition to this program, and the Board is required need to consider costs to growers with respect to overall benefit.
Comment No. 341 from National Marine Fisheries Service. Letter No. 90, p.2.	NMFS strongly recommends the inclusion of pyrethroids in the group of insecticides considered in the definitions of Tiers 1,2, and 3. As the Draft Order and its supporting documentation correctly and repeatedly note, the use of	Staff has focused on chlorpyrifos and diazinon because they are known sources of toxicity and are the source of a number of 303(d) listings in agricultural areas. If other chemicals become equally problematic they may be added to requirements for

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Pesticides/Toxicity	pyrethroids is widespread in the Central Coast region. Their contribution to toxicity in the region 's waterbodies is also well known and documented in the scientific literature and by the Water Boards own monitoring efforts. This toxicity is a significant contributor to the decline of ESA listed salmonids in the region and addressing it promptly is crucial in preventing their extirpation from Central Coast waterbodies. For Tier 3 dischargers, individual discharge monitoring for the pesticides diazinon and chlorpyrifos will take place once or twice per year depending upon the size of the farm. NMFS recommends that the required pesticide testing include pyrethroid insecticides,	individual discharge monitoring. At this point staff is using discharge toxicity, along with receiving water monitoring results to determine whether other chemicals are causing problems, and to address issues like additivity and synergism. To increase staff's ability to detect problems associated with pyrethroid pesticides, we have replace algae toxicity tests (for herbicides) in individual discharge monitoring with Hyalella toxicity tests. Algae toxicity in receiving waters is not as severe a problem as sediment toxicity to Hyalella. The Hyalella test is more sensitive to pesticide groups like pyrethroids; Ceriodaphnia is most sensitive to organophosphates like diazinon. The Executive Officer has the authority to require modifications to the individual discharge Monitoring and Reporting Plan (MRP), including additional chemicals or toxicity tests as necessary.
Comment No. 343 from National Marine Fisheries Service. Letter No. 90, p.4. Pesticides/Toxicity	According to Table 2 of the MRP, receiving water monitoring for pesticides in the water column and the sediments will only be required in the second year of the Order term. This is not sufficient to address the numerous toxicity and pesticide impairment listings present throughout the Central Coast. NMFS recommends that a second round of pesticide testing be required, occurring in the fifth year of the Draft Order. This will also serve to document if the Draft Order has successfully triggered implementation of management measures that prevent the discharge of toxic waste products.	Staff does not disagree that this additional monitoring would be very useful for documentation associated with listing/delisting decisions and for evaluating success. However, the monitoring in the Draft Order is intended to address compliance with the Order and evaluation of effectiveness of management practices. The toxicity monitoring can be used to verify if the program is effective at receiving water sites.
Comment No. 344 from National Marine Fisheries Service. Letter No. 90, p.7. Pesticides/Toxicity	NMFS suggests the use of rainbow trout in the three-species water column toxicity tests required as part of the MRP, rather than the use of fathead minnows. Rainbow trout are in the same genus (Oncorhynchus) as coho salmon and are the freshwater equivalent of steclhead trout. NMFS believes that the use of rainbow trout will give a more accurate indication of potential acutely toxic conditions to the ESA listed salmonids	CCAMP has evaluated using rainbow trout in our ambient toxicity tests for the reasons you describe. Staff has not adopted this practice because the test requires significantly more water (32 liters per test, including replacement water at day 2) and laboratory facilities than the fat head minnow test, making it more difficult and expensive to run for the number of sites that are sampled by the program. Also, our State toxicity laboratory staff indicates that there is no equivalent trout test for the 7-day larval

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	found in the Central Coast area. EPA protocols for the use of rainbow trout in toxicity testing are readily available and the practice is increasingly common.	growth and survival test we use. Trout tests are likely to be 96-hour acute tests with a somewhat older life stage, which may even make them less sensitive to some chemicals than fathead larvae. Given that fathead minnows are the standard EPA test protocol for routine monitoring, and given the complexities of the trout tests, we believe fathead minnows remain the correct species choice for this program.
Comment No. 345 from National Marine Fisheries Service. Letter No. 90, p.12. Surface Water	NMFS also has concerns regarding the assertion that 21 ℃ is considered the upper end of a desirable range to support steelhead trout. One 34-year old citation (Moyle, 1976) is given for this assertion. If this was ever considered acceptable in the field. please be aware that is no longer the case. As the science of fishery management has advanced. the acceptable temperature ranges for salmonids have been revised. In 2003, EPA Region X finished developing a temperature guidance meant to be consistent with both the Clean Water Act and the ESA (EPA 2003). NMFS endorsed this guidance later in 2003. This guidance recommends a summer maximum temperature (based on a 7-day average of the daily maximum values) of 16℃ for salmon and trout "core" juvenile rearing areas and 18℃ for salmon and trout migration and "non-core" juvenile rearing areas. Coho salmon rearing should not exceed 16℃ to be protective of a fully attained COLD and RARE beneficial usc. Here in the Southwest Region ofNMFS, EPA Region IX has not conducted a similar exercise, but the temperature guidance from EPA Region X is considered valid.	The criteria you cite are being used for determining impairment in the 2012 303(d) assessment if data exists to calculate a 7-day average. The Moyle evaluation guideline is only used for grab sample data that does not generate a 7-day average.
Comment No. 143 from Vic Roberts. Letter No. 91, p.1. Groundwater (Monitoring)	The groundwater sampling requirements are the most costly part of the proposed Draft Ag Order for Tier 1 growers. Water Board staff did not clearly define their objectives or identify how they can manage such an enormous amount of data. The entire groundwater	Please see responses to Letter 21 (Comment No. 654) and Letter 77 (Comment No. 122).

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	testing regime should be coordinated with the respective County Environmental Health Departments and local groundwater monitoring programs. Data has already been gathered through these programs and should be utilized. Until that point, it makes little sense to have growers obtain groundwater data that may not be of use.	
Comment No. 160 from Fort Ord Environmental Justice Network, Inc. Letter No. 92, p.1. Groundwater	The comment letter "applauds" the Ag Order effort to protect and restore the quality of the Central Coast region's water and discusses the importance of outreach to low-income and disenfranchised community members and organizations regarding this and other related water quality issues from an environmental justice perspective.	Comment noted.
Comment No. 672 from Clean Water Action, Community Water Center. Letter No. 93, p.1. General (Feb 1, 2010 Preliminary Draft)	Our organizations are deeply concerned that the November 19, 2010, Draft Order revising the proposed Central Coast Region Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Conditional Waiver) has been substantially weakened from staff's February 2010 proposal and is no longer sufficient to protect and restore water quality.	See response to Letter 16 (Comment No. 660) by Dana Perls, Pesticide Watch.
Comment No. 346 from Clean Water Action, Community Water Center. Letter No. 93, p.4. Monitoring/Reporting	The reference to the specific pesticides chlorpyrifos and diazinon as ranking criteria is overly specific. It limits the flexibility of the Board to include a broad range of toxins as potential contaminating activities that might impact the status of an operation. This program is not a snapshot in time, but is meant to adapt to evolving conditions and new water quality threats. A more generic reference to pesticides or toxins would provide that flexibility. Replace citations related to the use of chlorpyrifos or diazinon with "pesticides that are identified as exceeding water quality objectives or that have been identified as contributing to the degradation of receiving waters or of the underlying groundwater aquifer";	See response to Letter 15 (Comment No. 247).

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Comment No. 347 from Clean Water Action, Community Water Center. Letter No. 93, p.5. Monitoring/Reporting	We do not agree that minimal monitoring requirements (once every five years) are sufficient for Tier 2 operations. Since Tier 2 operations should include those that pose a threat to water quality, more frequent monitoring is needed to identify water quality trends. If none is found in the five years of the initial waiver, the operation could potentially be reclassified as Tier 1.	It is not staff's intent to use Individual Discharge Monitoring data for trend detection because of the expense of collecting enough data for statistical relevance. The data will be used to help identify important sources and for growers to establish their accountability.
Comment No. 464 from Clean Water Action, Community Water Center. Letter No. 93, p.5. Timing/Schedule	III. No standards or time schedules are identified for achievement of groundwater Objectives. The waiver program currently in place also contains no requirements for improvement of groundwater quality- with the result that groundwater has not improved in the six years since its implementation. We are extremely concerned that the limited groundwater objectives included in this order will cause an additional delay, and that we will be having this same conversation five years from now.	The proposed Order does not propose a schedule for achieving groundwater objectives, as it is expected to take longer than the five-year term of the Order. The Draft Order would establish timeframes for dischargers to control pollution loading and demonstrate load reduction from individual operations. In so doing, compliance with the Order will initiate tangible steps to improve groundwater quality and require measurement and reporting on progress during the five-year term of the waiver. Given the historical conditions staff expects that it will likely take several years to fully characterize groundwater conditions, implement pollution reduction, and implement treatment and control adequate to achieve groundwater quality objectives in the all the groundwater basins on the Central Coast. For these reasons, the Draft Order does not include a specific timeframe to meet groundwater quality objectives.
Comment No. 112 from Darlene Din. Letter No. 94, p.1. Economics	Due to the short time frame, we were unable to conduct a statistically relevant survey of our members to determine the economic costs of implementing the draft waiver as proposed by staff. However, we have conducted surveys of growers throughout the seven counties to gauge the costs of implementation on a per acre basis and determined costs to range from $354 to $445 for wine grapes and $250 to $916 for cool season vegetables per acre. Based on conversations with	Staff reviewed data in the range of values reported here when preparing Appendix F (see Section 2.2.2.4.4, p. 22).

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	growers and a review of 2008 crop reports published by agricultural commissioners in the seven affected counties we have determined costs for implementation by region. The numbers are staggering. For wine grape production the costs for the entire seven county region range from $36 Million to more than $45 Million. For cool season vegetables, the costs are a drastic $48 Million to more than $176 Million.	
Comment No. 113 from Darlene Din. Letter No. 94, p.1. Economics	After years of profit margin decline an agricultural waiver that costs industry hundreds of millions to implement has the potential to destroy numerous farms on the Central Coast. After including these overlooked factors, not only will the Ag industry be adversely affected in a significant economic fashion, it is highly probable that entire commodities will fall vulnerable due to this imposition – in conflict with the Food & Agr. Code § 802 (a), Farmland Protection Policy Act, and the California Code of Regulations title 14, Appendix G, § II, regarding Agricultural resources. Castroville alone could stand to lose the ability to farm artichokes, when Castroville accounts for more than 80 percent of the world's artichoke production. An additional example of another specialty crop primarily in this region would be brussels sprouts. There are acres planted in coastal areas of San Mateo, Santa Cruz, and Monterey Counties of California, most of the United States production is in California.	Comment noted.
Comment No. 546 from Darlene Din. Letter No. 94, p.3. General (CWC 13241, 13242, Basin Planning)	Another rather pertinent CEQA related concern, as was requested to be brought forth by "interested individuals" in response letters regarding the CEQA scoping meeting held on August 16th, 2010, brings about Water Code § 13241.	Water Code section 13241 and 13242 concern the adoption of water quality objectives and implementation plans into the Basin Plan. The 2011 Draft Ag Order is not a Basin Plan amendment and is not required to comply with those sections. It is a proposed renewal of the 2004 Ag Order waiving waste discharge requirements under Water Code section 13269. In issuing a waiver of waste discharge requirements under Water Code section 13269, the Water Board must assure consistency with the

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		Basin Plan. The Basin Plan includes water quality objectives to protect beneficial uses and implementation plans to comply with the water quality objectives. The 2004 Ag Order and the 2011 Draft Ag Order require actions consistent with the Basin Plan water quality objectives and the Basin Plan Implementation Plans to protect the beneficial uses of waters of the state.
Comment No. 402 from California Rural Legal Assistance, Inc. Letter No. 95, p.1. General (Draft Agricultural Order)	While we applaud the willingness to make revisions to the grossly inadequate 2004 Agricultural Waiver, the current revisions do not go far enough to mitigate the environmental, health, and cost impacts of agricultural runoff. Lack of surface and groundwater protections have gone on too long at the expense of community and watershed health. Hence, we applaud your efforts to address water contamination by agriculture. We strongly urge you to take timely action to put in place stringent requirements for irrigated agriculture discharges so that California's water is truly protected and restored.	Staff's recommendation provides requirements that are more stringent and enforceable than the current 2004 Order, meets statutory requirements, and focuses on addressing the most serious and widespread water quality problems in agricultural areas of the Central Coast, particularly nitrates in drinking water. Furthermore, the Draft Order is responsive to comments from stakeholders who want *both* more control of the environmental, health, and cost impacts of agricultural runoff, *and* reasonableness and time for the agricultural industry to eliminate or minimize these impacts.
Comment No. 576 from County of Santa Barbara. Letter No. 97, p.8. General	The Santa Barbara County Flood Control District owns and maintains several drainage ditches, channels, and basins throughout the County that are adjacent to agricultural lands. We have concerns that the new regulations could put additional maintenance and/or monitoring responsibilities on the District that may be infeasible. It would be helpful if the subject documents would identify more clearly what, if any, additional requirements would be placed on the local agencies and Flood Control Districts.	The existing 2004 Ag Order and the 2011 Draft Ag Order apply to discharges of waste to waters of the state from irrigated agriculture. Local agencies, including Flood Control Districts, are not subject to the Order unless they own or operate irrigated agricultural lands that discharge waste to waters of the state.
Comment No. 114 from Crown Packing Company. Letter No. 98, p.1.	In general this draft agricultural order is fatally flawed from its inception in that it ignores the economic impact of its policies on California agriculture, the California economy at large, including employment and earnings,	See response to Letter 40 (Comment No. 78) and Letter 83.

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Economics	and by necessary extension, the national economy. Furthermore, it fails to address the impact of these proposed restrictions on food supply, food prices, and food safety and security. The draft order should include a section quantifying the following issues: 1. Loss of earnings/employment by agriculture due to reduction in acres planted. 2. Loss of earnings/employment in ancillary businesses due to reduction in acres planted. 3. Loss of earnings/employment due to reduced incomes, lost jobs of agricultural employees.4. Increased costs to agriculture due to additional compliance measures.5. Reduction in food supply. 6. Likely response to reduction in food supply (higher prices or increase in foreign agricultural imports/combination thereof. 7. Impact on food safety and security due to potential increase in food imports.	
Comment No. 115 from Crown Packing Company. Letter No. 98, p.1. Economics	The 1000-foot setback of 303(d) listed water bodies is unwarranted and economically unbearable…It would constitute a legal 'taking" that would automatically trigger legal action costing all parties staggeringly large sums of money.	The Draft Order includes no such setback requirement.
Comment No. 403 from Monterey Bay National Marine Sanctuary. Letter No. 99, p.1. General (Draft Agricultural Order)	On behalf of Monterey Bay National Marine Sanctuary (MBNMS), I would like to acknowledge the Regional Board staffs effort to revise and improve the prior draft Irrigated Lands Agriculture Order and offer support as this process moves forward. This draft addresses many of the public comments and is responsive to the following recommendations that were outlined in our letter dated April 1, 2010: MBNMS Comments — Need for further technical review of scientific feasibility. CCRWQCB Response — Staff consulted with technical	Comment noted.

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	partners and provided citations within supporting documentation. MBNMS Comments — Need for further strategic prioritization of risk. CCRWQCB Response — Staff developed a tiered approach for defining risk categories and scaled requirements in accordance with those categories. MBNMS Comments — Need for strategic prioritization of data collection and analysis. CCRWQCB Response — Staff developed tiered monitoring requirements that correspond to risk categories and a phased approach to when monitoring data must be reported. MBNMS Comments — Need for flexibility and recognition of the diversity within the agricultural industry. CCRWQCB Response — Staff attempted to provide multiple options for growers to demonstrate compliance with the requirements. I am encouraged to see that the revised draft supports and rewards collaboration and coordination on the local or regional scale to implement water quality protection and treatment.	
Comment No. 465 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.2.	4) Additional specificity/rationale for language about “restoring groundwater quality in the upper-most aquifer” (e.g. Page 9, Part III.A.9) would be helpful; it is unclear why these areas are of special interest. For example,	See response to Letter 83 (Comment No. 391).

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Implementation, Groundwater (Upper-most aquifer)	many surface water nitrate impairments are derived from wells pumping from areas below and isolated from the "upper-most aquifer." These cross-sections recharge from up-gradient, unconfined areas of the basin. Continued surface water (and upper-aquifer) impairments could be anticipated if these lower-aquifer areas do not improve, however language in the Draft MRP specifies the "upper-most aquifer" as the area of interest.	
Comment No. 348 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.1. Monitoring/Reporting	it is unclear if the 2 storm events required to be monitored can also serve as the monthly monitoring events for the months in which they occur, or if these are required over and above the 12 monthly monitoring events (for a total of 14 events per year). A recommendation is to maintain the current protocol. with the possible exception of adopting the Draft MRP suggestion that one storm monitoring event capture the "first run-off event that results in significant increase in stream flow."	Staff edited the Monitoring and Reporting Program to reflect this comment.
Comment No. 351 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.2. Monitoring/Reporting	Page 9, Part IV.A.1.d calls for a receiving water MRP to accomplish "Identification of Beneficial Uses and applicable water quality standards" within 3 months of adoption of the Order. This task is recommended as being better accomplished by CCRWQCB staff because it requires interpretation of the Basin Plan.	The Basin Plan and the Draft Order provide the relevant information. The growers are the most knowledgeable about their properties to be able to identify the water bodies and associated water quality standards relevant to their property. Staff is available to assist and will make interpretive information available to make this process more understandable and straight-forward.
Comment No. 349 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.2. Monitoring/Reporting	Tables 4a and 4b, as well as some text, allow for "EPA approved 'quick test strip' methods" and "handheld water quality meters" to be used in lieu of laboratory analysis in some cases. This language could cause some confusion, as EPA-approved test strips do not exist for most parameters (i.e. those test strips that do exist are not of sufficient accuracy/precision to meet EPA specifications. Remove specific references to "test	Staff edited the Monitoring and Reporting Program to reflect this comment.

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	strips" and "hand-held water quality meters" and replace with, "In-field water testing instruments/equipment may be substituted for laboratory analysis if the method is approved by EPA, meets RL/PQL specifications in the MRP, and appropriate sampling methodology and quality assurance checks can be applied to ensure that QAPP standards are met."	
Comment No. 350 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.2. Monitoring/Reporting	In-text and table requirements for "flow" monitoring should provide additional specificity in cases where high accuracy/precision is desired. The term "field measure" could imply a variety of techniques, from "bucket and stopwatch" to "orange peel" to the more highly-involved transect and velocimeter protocol currently used by the CMP. Costs of these different techniques vary considerably, so additional specificity in flow monitoring requirements has significant cost implications.	Staff has added a reference to SWAMP field SOPs.
Comment No. 352 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.3. Monitoring/Reporting	Reduce or eliminate requirements for 5 day notice of water quality because of lab turn-around time, routine ongoing exceedance at many sites, widespread and repeated nature of exceedance.	Staff agrees with the comment and has removed the requirement.
Comment No. 353 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.3. Monitoring/Reporting	On Page 11, part IV.E.1.m, the annual receiving water quality monitoring report is required to include recommendation of candidate sites for Toxicity Identification Evaluations (TIEs)…. In many cases, sufficient clarity about sources of toxicity can be gained without incorporating the additional layer of experimentation that results in the high cost of the TIE. The recommendation in this case would be to modify requirement IV.E.1.m to require evaluation of candidate sites for "concurrent toxicity and chemical analyses," rather than TIEs. In cases where toxicity remains unresolved even after all potential toxicant classes have	Staff has modified language to reflect this suggestion.

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	been analyzed, or where toxicity continues despite improvements in specific toxicant levels, then the more sophisticated and costly TIE approach is justified.	
Comment No. 354 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.5. Monitoring/Reporting	On Page 19, Table 2 calls for photographs of monitoring locations. This should be revised to specify "upstream and downstream photographs."	Staff has modified language to reflect this suggestion.
Comment No. 355 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.5. Monitoring/Reporting	In combination with the inorganic forms of nitrogen already monitored, the addition of TKN allows calculation of organic nitrogen. This could also be accomplished with "Total Nitrogen analysis. Flexibility should be allowed to substitute this parameter if more cost effective. Including Total Phosphorus and Total Nitrogen (or TKN) will provide data on organic forms of N and P generally expected to be of minor importance in relation to the elevated inorganic forms which result from agricultural activity. The benefit of adding these parameters, especially to the routine monthly program, is unclear.	Staff eliminated TKN based on your comments. Total Nitrogen and Total Phosphorus are necessary because they are becoming the most commonly used forms in the state-wide dialogue on nutrient objectives for aquatic life. Should state-wide objectives be adopted in the near future, they are likely to be expressed as Total N and Total P.
Comment No. 356 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.5. Monitoring/Reporting	Algae-related parameters should be modified to reflect the importance of attached algae in riverine environments.	Comment noted and "attached algae" added. However, because attached algae is highly variable in terms of biomass, staff has retained "floating mats" as well, to capture observations of dense algae that completely obscure the water surface. This is consistent with CCAMP observations.
Comment No. 357 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.5. Monitoring/Reporting	It is unclear why Hardness and TOC are of interest as monthly parameters (i.e. why not just when monitoring for metals is required).	Staff has moved hardness and TOC monitoring to coincide with metals and organics monitoring only.
Comment No. 360 from Central	On Page 19, Table 2 specifies reporting limits for some	Thank you for making this observation. Staff has corrected

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Coast Water Quality Preservation, Inc. Letter No. 100, p.6. Monitoring/Reporting	pesticides that appear higher than levels of concern currently specified by CCRWQCB staff. To support detection of exceedences, MDL's and RL's should be lower than water quality objectives.	several reporting limits to address this problem and have referred to reporting limits used by Preservation Inc. in follow-up studies.
Comment No. 358 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.6. Monitoring/Reporting	Rationale/citations should be provided for Pathogens and Metals, as there is question as to whether or not each of the listed parameters is actually related to irrigated agricultural discharges (or pesticide applications). (Rationale is clear for some; not for others.) Rationale/citation should be provided for Phenol as a parameter, with special consideration as to the form it would be expected to take in receiving waters (i.e. is "Phenol" the correct analyte name).	Monitoring of pathogens has been eliminated from the MRP. Both metals and phenols are components of some commonly applied agricultural chemicals. Supporting references have been added to Table 2 in the MRP. If phenols and metals are not found to be of concern in agricultural areas they will be eliminated from future monitoring requirements.
Comment No. 359 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.6. Monitoring/Reporting	Is the current annual requirement for "Bioassessment Monitoring," which includes Physical Habitat Assessment and Benthic Invertebrate Assessment being revised to a one-time requirement for Benthic Invertebrate Assessment only Please clarify.	Bioassessment monitoring is being revised to a one time requirement during the life of the 5-year order to assess status. Staff clarified the MRP that physical habitat, per SWAMP protocols, must also be conducted at this time.
Comment No. 361 from Central Coast Water Quality Preservation, Inc. Letter No. 100, p.6. Monitoring/Reporting	On Page 19, Table 1 specifies major water bodies for monitoring. There are several inconsistencies with the current suite of CMP sites, including: (a) No mention of San Juan Creek or Carnadero Creek in the Upper Pajaro; Alisal Slough in the Lower Salinas; the Salinas River above Chualar; Green Valley or Bradley Channel in Santa Maria and (b) new water body San Luis Obispo Creek. A rationale for any changes to the current suite of CMP sites should be provided.	Minimum required waterbody list is intended to reflect 303(d) listed waters associated with agricultural chemicals. The list has been modified to reflect your comments and the adoption of the 2010 303(d) list.
Comment No. 468 from Alice Gripp. Letter No. 101, p.3. Implementation (Nurseries and greenhouses)	A-No mention of nurseries and garden centers except in comments sections. Should we expect some shoedropping in this direction in the near future, or are there so few they are insignificant in the big N and pollutant picture for our region Or maybe it would be	A) The Draft Order regulates discharges of waste from commercial nurseries, nursery stock production, and greenhouse operations with soil floors that do not have point-source type discharges and are not currently operating under individual WDRs.

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	their turn in 5 to 10 years B- A problem with outdoor nurseries is many groundwater protection measures might increase runoff during peak rain events, increasing downstream flooding and erosion.	B) Staff aggress that, in an attempt to reduce their discharge to groundwater, nurseries might cover the outside areas with plastic and or impermeable structures, which will reduce the amount of rain water that would infiltrate into the ground. However, there are other practices that nursery growers could and might implement to protect groundwater, such as drip systems installed directly on the pots, or the rearrangement of potted plants to small surfaces with ground covered areas, other. It is impossible for staff to anticipate which practice/s will be adopted by the majority of the nursery growers.
Comment No. 470 from Alice Gripp. Letter No. 101, p.3. Implementation (Pesticides)	There should be a simple safe procedure to apply pesticides with short half-lives and low water toxicity during the rainy months.	The Draft Order does not address the application of pesticides, which is up to the user in compliance with applicable requirements. The dischargers are responsible for assuring that dischargers of waste, including pesticides, does not result in violations of water quality standards.
Comment No. 469 from Alice Gripp. Letter No. 101, p.3. Implementation, Groundwater (Nitrates)	Groundwater does need to be sampled, but give us lots of time (10 years good) to fix. Upsetting farmers with page 12 is not so useful.	The current Draft Order does not have provisions for the groundwater resources to meet water quality standards. Staff recognize that improvements to groundwater quality may require many years. However, the Draft Order provides reasonable schedules to demonstrate and verify measurable progress annually and specifies milestones or annual indicators of progress (see Table 4, page 36 in the Draft Agricultural Order).
Comment No. 466 from Alice Gripp. Letter No. 101, p.2. Implementation, Groundwater (Monitoring)	I'm flummoxed by the groundwater measurements if you don't have a well. Is this when you want us to check with our local water supplier to find out the condition of the wells near our farms An explicit statement would be helpful.	There is no well water monitoring requirement for those growers who don't pump groundwater for irrigation purposes. However, and regardless of the presence of an irrigation well in the property or not and pursuant to Water Code section13267, the Executive Officer may require dischargers to locate (inventory) and conduct sampling of private domestic wells in or near agricultural areas - Provision 40.

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Comment No. 362 from Kathy D'Andrea. Letter No. 103, p.1. Monitoring/Reporting	Three-month time frame for submission of Quality Assurance Project plan and Sampling And Analysis plan is way too short. I have tried to carefully read that part of your document twice and I have no idea what I am supposed to do because I cannot figure out what I must monitor on my farm and what I can do through cooperative monitoring… Explain more clearly in tables which measurements are cooperative and which measurements must be done at a Tier 1 farm.	Staff has divided MRP requirements into three separate documents, one for each tier, to increase clarity for users. The existing and approved Quality Assurance Project Plan (QAPP) for the current Cooperative Monitoring Program can be updated to address new program requirements with relative ease. By selecting the "cooperative monitoring" approach to receiving water monitoring, growers will not have to undertake this individually for receiving water monitoring. If any individuals should elect to do receiving monitoring on their own (outside of the cooperative program) it is true that they will have a very short time frame in which to accomplish this. If they choose to do so, there are QAPP templates and a "SWAMP QAPP Advisor" available on the Surface Water Ambient Monitoring Program website, at http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#. Additionally, the existing CMP QAPP can be used as a reference for structure and content. For individuals who must implement discharge monitoring (NOT tier 1), staff intend to provide additional online help for meeting sampling plan and QAPP requirements.
Comment No. 116 from Pacific Institute. Letter No. 104, p.1. Economics	p. 1 We strongly support the requirement that all dischargers implement mandatory best management practices immediately to minimize toxicity and pesticide discharges, nutrient and salt discharges, erosion, and stormwater runoff. The continued pollution of surface and groundwater resources is not sustainable, and represents a transfer of costs from polluters to the general public and environment.	Comment noted.
Comment No. 117 from Pacific Institute. Letter No. 104, p.1. Economics	p. 4, 5, 6: The draft "Cost Considerations" (Appendix F) appropriately include a crucial discussion of the environmental health costs of contaminated groundwater borne by the public at large and disadvantaged	Comment noted.

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	communities in particular. However…we believe the analysis ignores several categories of costs and underestimates others. For example…[i]n addition to replacing a well or treating nitrates, nitrate-contaminated water systems may elect to install pipelines and other infrastructure…to secure water from a nearby water system. Our review of nitrate mitigation projects for community water systems funded…shows that the costs of consolidation to address nitrate contamination may range from $200,000 to $1.5 million, depending on the number of users and other variables (Pacific Institute, forthcoming)…In addition…many options for addressing nitrate contamination in the short-term may not be sustainable in the long-run. Several systems have reported that they dug deeper wells to avoid nitrates only to then find groundwater with high arsenic levels and, as a result, incurred the additional costs of treatment for arsenic. The costs of avoiding nitrate-contaminated water at the household level are also largely understated. It has been well documented that households impacted by groundwater contamination incur significant costs to avoid contaminated tap water. A series of studies…have demonstrated that household responses to contamination of domestic water supplies is far from inexpensive and that these expenditures must be taken into consideration in valuing the costs and benefits of groundwater protection. In the summer of 2010, Pacific Institute conducted a survey of 21 out of the 28 households connected to the community water system…in Tulare County, which was in violation of the 45 mg/L MCL for nitrate concentration…Nearly half of the households surveyed reported exclusively using vended and bottled water for drinking and cooking. These households spent an	

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	average of $5.37 per person per month on alternative sources of water, or $258 per year for a family of four, which is 35 percent greater than the estimate, put forth by the staff (Pacific Institute, forthcoming).	
Comment No. 118 from Pacific Institute. Letter No. 104, p.1. Economics	While the draft Cost Considerations recognizes that the cost of contaminated drinking water is disproportionately borne by disadvantaged communities, the Board could do more to characterize the burden of unsafe water on impacted households. Our survey demonstrated that 75 percent of households in [the Tulare Co. study] spend more than 2.5 percent of their income on water-related expenditures, exceeding U.S. EPA's threshold for drinking water affordability, with 30 percent of households exceeding the threshold based on expenditures on vended and bottled water alone. Finally, the analysis fails to recognize an important group of stakeholders affected by nitrate contamination of groundwater: private domestic well owners. According to the Groundwater Ambient Monitoring & Assessment Program, there are an estimated 600,000 private domestic wells in California and 10 percent of those tested have nitrate levels above the legal limit. According to the USGS, using 2000 census data, there is a population of 243,780 in Central Coast counties who rely on domestic wells. The CCRWQCB should revise the analytical approach based on previous studies by government agencies and leading economists and scientists to better answer the following question: What are the costs to water system operators, well owners, and drinking water consumers due to agricultural activities regulated under Agricultural Regulatory Program alternatives This approach to	The comment provides useful information from related studies. However, the Water Board is not required to conduct such an analysis per the Water Code and CEQA. See response to Letter 40 (Comment No. 648).

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	assessing public costs of different regulatory options for addressing nitrate contamination was undertaken by the U.S. EPA in 2002, for concentrated animal feeding operations. For each regulatory option being considered the EPA reported expected reductions in nitrates with nitrate-contaminated wells and estimated the economic benefit to these households.	
Comment No. 673 from Pacific Institute. Letter No. 104, p.2. General (Feb 1, 2010 Preliminary Draft)	However, we are very disappointed that despite overwhelming evidence of human health and drinking water concerns, the Draft Order is significantly weaker than the Draft Recommendations released by the Regional Board Staff on February 1, 2010.	See response to Letter 16 (Comment No. 660) by Dana Perls, Pesticide Watch.
Comment No. 161 from Pacific Institute. Letter No. 104, p.2. Groundwater	The letter states that "current levels of nitrate contamination are not necessarily indicative of future levels of nitrate contamination" and recommends that "it is critical that any inclusion of groundwater contamination levels be updated regularly." The letter provides an example of a regression analysis of well data for Kern County estimating how rapid nitrate concentrations and the number of impacted wells are expected to increase.	We concur with this comment given contaminant loading occurring at the ground surface today will likely take years or decades to reach the water table (aquifer). Consequently, we expect to see nitrate concentrations and the number of wells impacted increase in the near term even if the loading is significantly reduced or completely eliminated. Ongoing groundwater monitoring is required to establish a current baseline and evaluate trends over time to see if the Ag Order is ultimately effective. We intend to periodically review and update groundwater and water supply quality conditions to evaluate trends and prioritize implementation efforts.
Comment No. 363 from Pacific Institute. Letter No. 104, p.5. Monitoring/Reporting	Individual discharge monitoring should also take into account seasonality and be required to occur in late fall/early winter after the first major rains, which mobilizes high concentration of contaminants at the beginning of the wet season and should be captured in monitoring efforts.	Individual discharge monitoring is to be conducted either once or twice in the wet season and once or twice in the dry season (depending on tier) and so does take seasonality into account.
Comment No. 674 from Environmental Justice Coaltion for Water. Letter No. 105, p.2.	We are very disappointed that in spite of the Board's verbal commitment to regulate agricultural discharges due to overwhelming evidence of human health and	See response to Letter 16 (Comment No. 660) by Dana Perls, Pesticide Watch.

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General (Feb 1, 2010 Preliminary Draft)	drinking water concerns, the November Draft Order is significantly weaker than the Draft Recommendations released on February 1, 2010 (hereafter referred to as 'February Draft Order'.	
Comment No. 144 from Environmental Justice Coaltion for Water. Letter No. 105, p.4. Groundwater (Monitoring)	Tier 1 dischargers only have to conduct groundwater monitoring twice in one year during the five years of the Draft Order. Beyond the groundwater sampling twice in five years, Tier 1 Dischargers will not be held to any real regulation of groundwater, even though this has been identified as a human health and drinking water priority. This low level of regulation is insufficient.	In order to make the best use of staff's limited resources, the Order is prioritized with the strictest regulation of discharges to groundwater for large growers having high potential for impacting groundwater. However, information gained from the Tier 1 and Tier 2 monitoring requirements will help staff direct future regulatory efforts. In addition, the Order does not preclude the Water Board from regulating certain dischargers in the first two tiers on an individual basis if found that they are causing impacts to human health or the environment. Note that staff believes that the best approach towards cleaning up nutrients in groundwater is to implement efficient nutrient and irrigation practices that incorporate the nitrate in the irrigation water for the crop's nutrient budget.
Comment No. 472 from Environmental Justice Coaltion for Water. Letter No. 105, p.4. Implementation (Nitrate Hazard Risk)	Tier 2 and Tier 3 Dischargers must calculate the nitrate loading risk factor for each ranch, farm included in their operation. The nitrate loading risk factor is a measure of the relative risk of loading nitrate to groundwater. Tier 3 Dischargers must determine the nitrate loading risk factor for each ranch, farm using the criteria below… a. Nitrate Hazard Index Rating by Crop Type b. Irrigation System Type c. Irrigation Water Nitrate Concentration" This paragraph neglects to explain how Tier 2 Dischargers are to calculate their nitrate risk. The language must be amended to state that Tier 2 and Tier 3 Discharges must determine the nitrate loading risk	See Response to Letter 79 (Comment No. 439).

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	factor. In addition, Tier 1 Dischargers located in "hotspots" growing high nitrate risk crops must also be made to assess their nitrate loading risk factor using the same method	
Comment No. 364 from Environmental Justice Coaltion for Water. Letter No. 105, p.4. Monitoring/Reporting	We agree that Diazinon and Chlorpyrifos are dangerous pesticides with high toxicity. However, we disagree with Staff's approach to specify just these pesticides in the Tiering criteria to the exclusion of other pesticides which may be just as harmful. In fact, the regulation of just these specific pesticides will provide an incentive to growers to switch to other pesticides, and will render this criterion useless. This approach of naming two particular pesticides also ignores the public health concept of synergism: that two or more pesticides working together may create combined effects and public health harm that has not even been properly understood or documented. Toxicity does not arise merely from the use of these two pesticides, and we fear that many dischargers will escape Tier 3 high-risk monitoring merely by shifting to other toxic pesticides. Hence, we feel strongly that Staff should not specify just these pesticides in the Tiering criteria, but rather focus on general toxicity and damage to water quality.	See response to Letter 15 (Comment No. 247).
Comment No. 657 from Environmental Justice Coaltion for Water. Letter No. 105, p.4. Timing/Schedule	Appendix A of the November Draft Order states that, "Within 10 years from adoption of this Order, Tier 2 Dischargers must demonstrate that they are not causing or contributing to exceedences of water quality standards for nitrate and salts in groundwater. Dischargers may have to implement best management practices, treatment or control measures, or change farming practices to achieve compliance with this Order" (Appendix A, pg 29). Firstly, it is hard to imagine that the issue of human	See response to Letter 93 (Comment No. 464) regarding timelines.

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	health having been prioritized by the Regional Board, that such a long time-frame is being given to address this issue. Already, communities are paying with their health and their money for nitrate contaminated water. We strongly urge that the Regional Board to implement a reasonable time-frame and regulations that ensure communities will not continue suffering from contaminated water for another ten years.	
Comment No. 145 from Joe Plummer. Letter No. 106, p.2. Groundwater (Monitoring)	How can you justify requiring that I analyze my well water (I drink the water) when none leaves the property How can you justify requiring that I measure depth to groundwater What does this have to do with your goal of protecting surface water bodies What qualifications will be required of the person(s) doing the sampling/measurement And, finally, what are you going to do with all this data Who will review it and to what end	Please see responses to Letter 21 (Comment No. 654) and Letter 77 (Comment No. 122).
Comment No. 365 from Joe Plummer. Letter No. 106, p.1. Monitoring/Reporting 10-3, 110-1	I am a small (42 acres planted) operator, use drip irrigation and deficit irrigate the vines, monitor soil moisture (electronically) for irrigation decisions, have no irrigation water run-off, do not use listed pesticides and am more than one mile from the nearest water body. Given that, can you logically explain to me why I should be required to initiate receiving water quality monitoring. How can you justify requiring that I measure depth to groundwater? What does this have to do with your goal of protecting surface water bodies?	Given the description of your operation, you will likely be in Tier 1. You do not have to initiate receiving water as an individual if you elect to participate in the cooperative monitoring program. Agriculture is a non-point source of pollution, meaning that even small operations well upstream of major waterways can contribute enough pollutants to waterways to cause serious problems to water quality. Without a receiving water monitoring program, staff is unable to know where those problems are and whether they are improving. It is the goal of this Order, and legal responsibility of the Water Board, to protect both ground and surface water. Also, see response to Letter 40 (Comment No. 188) regarding irrigation efficiencies.
Comment No. 473 from Thomas R. Am Rhein. Letter No. 108, p.1.	Administration of the waiver should begin with the land owner, not a farm operator and the land owner, not a	See response to Letter 15 (Comment No. 623)

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Implementation (Landowners)	farm operator, should be responsible. Land ownership is stable. It is mapped and identified. There are almost no investments that a short term tenant farmer can make which will give the farm operation a return on investment over the lease term and bring measurable improvement to water quality. The industry can spend millions of dollars and many years developing intricate crop specific management plans and protocols. However, I would submit that history shows that crop and production profiles in any given watershed change faster than that so what would be the point The order needs to incentivize land owners to create systems on their properties that permanently assure water quality no matter what commodity or individual grower is operating on the property in any given· season.	
Comment No. 610 from Jensen Family Farms, Inc. Letter No. 109, p.25. Aquatic Habitat/Buffers	The Proposal requires that farmers create a 30-foot buffer on their farmland which abuts waters described in the preceding section. However, the Proposal does not specify whether measurement of that buffer begins at the bank (defining some definite bank as opposed to one that changes with the rate of flow of the water), in the middle of the body of water, or at the historic high or low water point. That makes it impossible for farmers such as the Jensen's to comply with the requirement since, frankly, they simply cannot know where the 30 feet begins. That is the paradigm of a regulatory requirement that is so vague and ambiguous that it violates the landowner/operator's constitutional right to due process. Accordingly, that requirement cannot be adopted.	The Draft Agricultural Order specifies that the Water Quality Buffer Plan must include "a minimum 30-foot buffer (as measured horizontally from the top of bank on either side of the waterway, or from the high water mark of a lake and mean high tide of an estuary)…" Note that the Draft Order does not mandate use of buffers, but requires dischargers to control discharges of waste to protect the beneficial uses of waters of the state and comply with water quality standards. Buffer strips or some other method must be used to control discharges of waste.
Comment No. 474 from Jensen Family Farms, Inc. Letter No. 109, p.6. Implementation, Groundwater	Crop, soil, vadose zone, and/or groundwater uptake of potential contaminants effectively mitigates pollution in many cases and are factors which the Tiering system does not take into account. Clay layers in many parts of the groundwater system in the Salinas Valley, for	Staff agrees that different soil types and interactions in the vadose zone, amount of rain and of irrigation water applied, and groundwater hydraulic conductivity and flow direction could effectively mitigate pollution in many cases. To reiterate, those factors have not been included in the criteria for risk assessment

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	instance, prohibit or greatly inhibit the downward movement of water in many areas, and thus isolate deeper waters with beneficial uses from contamination by possible percolating water from irrigated lands. It cannot be - but was by Staff - overlooked that water moves through soil due to two types of forces - gravity and capillary tension. Capillary forces pull water from wet areas into dry areas in any direction. Gravity pulls water downward. Capillary forces vary greatly in magnitude depending on the water content in a given soil and by soil texture. Capillary forces dominate flow conditions in unsaturated soils, while gravity only governs flow in saturated soil conditions. See Gardner, Dr. W.H., How Water Moves in Soil (University of Washington 1979). Thus, 1. Surface evaporation and transpiration can create extremely dry near-surface soil conditions in more arid areas, such as many areas within the Central Coast region; 2. Soil moisture content generally increases with depth, so capillary forces can tend to wick water from moist, deep percolation areas toward the adjacent near-surface dry soils rather than downward. This is more likely where more thickness of unsaturated sediments is present between the surface and deep groundwater. 3. Similarly, alternating layers of coarse- and fine-grained sediments can serve as capillary breaks that also act to retard downward movement of groundwater.	to allow growers and operators to use them as a justification for requesting a reduced risk level. Staff is also hopeful that the groundwater uptake and the consumption of the nitrates by the crops grown will help to improve groundwater quality. However, such improvements could only occur if the water percolating into the ground is of better quality than the water retained in the aquifers. Staff agrees with your explanation of forces governing the movement of water below the surface. Water movement (water cycles) and forces governing can not be easily modified. Therefore, the requirements do not intend to do that, rather to improve the quality of the water leaving the farmland at the points of discharge. See response to Letter 83 (Comment No. 391) regarding the assimilative capacity of soil.
Comment No. 475 from Jensen Family Farms, Inc. Letter No. 109, p.6.	The Proposal wrongfully assumes that virtually all irrigated agricultural lands, including those that do not drain to surface waters of the State, must be considered	Please see response to Letter 109 (Comment No. 474, point c).

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Implementation, Groundwater	as discharging to groundwater. For example, lands that are farmed many hundreds of feet above groundwater and use drip irrigation constituting only a few inches of irrigation water during the summer months coupled with annual winter rainfall of less than ten inches have absolutely no percolation or discharge to groundwater whatsoever, and much less have the capability of carrying a contaminant from the surface many hundreds of feet to underlying underground water, which itself may be decades or hundreds of years old, and may have originated dozens of miles away.	
Comment No. 476 from Jensen Family Farms, Inc. Letter No. 109, p.7. Implementation, Irrigation (Irrigation practices)	A fundamental limitation of the Regional Board's authority to regulate irrigation practices is that the activity must result in a "discharge of waste" that impacts water quality. Simply because it would be "difficult" or would be "administratively inconvenient" to determine whether individual irrigated lands are creating a discharge of waste does not eliminate the Regional Board's statutory obligation to only regulate activities that actually create a discharge of waste.	Water Code section 13260 requires persons who discharge or propose to discharge waste that could effect the quality of waters of the state to submit a report of waste and seek waste discharge requirements or a waiver. If a person does not discharge waste, the person is not required to seek coverage under the Order.
Comment No. 227 from Steve Arnold. Letter No. 114, p.1. Implementation	I urge you to renew the current ag waiver.	Staff first evaluated continuing the current Order, adopted in 2004, renewed twice, and currently labeled Order R3-2010-0040, which is a Conditional Waiver. The 2004 Order does not include reporting or monitoring to provide accountability and verification for directly resolving the known water quality problems. The 2004 Order addresses all common problems associated with all agricultural operations equally without prioritizing water quality problems unique to a farm, without considering load contribution to nearby impaired water bodies. And the 2004 Order does not include any specific targets or timelines for compliance or require direct submittal of information that loading or water quality of discharges are improving. The Order the Board adopts must be able to demonstrate compliance and verify that water quality is being protected.

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Comment No. 228 from Steve Arnold. Letter No. 114, p.1. Implementation	Has the monitoring data been studied Have the sources of water quality problems clearly been identified as being a result of current ag practices If not, is this a good time to jeopardize jobs and food production by adding burdensome and expensive regulatory demands	We encourage you to review the Staff Report (specifically beginning on page 33, D. Summary of Environmental Setting and Water Quality Conditions) which more specifically outlines the water quality impairments from our primary data sources (Central Coast Ambient Monitoring Program) and the Cooperative Monitoring Program (Ag led monitoring program). In summary, discharges of waste associated with agricultural discharges (e.g., pesticides, sediment, nutrients) are a major cause of water pollution in the Central Coast region. The water quality impairments are well documented, severe, and widespread. Nearly all beneficial uses of water are impacted, and agricultural discharges continue to contribute to already significantly impaired water quality and impose certain risks and significant costs to public health, drinking water supplies, aquatic life, and valued water resources The primary water quality issues associated with irrigated agriculture on the Central Coast Region include Impacts to thousands of people who are drinking water contaminated with unsafe levels of nitrate or are drinking treated or replacement water to avoid drinking contaminated water. The cost to municipalities, communities, families, and individuals for treating drinking water polluted by nitrate is estimated to be in the hundreds of millions of dollars and the health impacts are serious-cancer, Parkinson's disease, Blue Baby Syndrome. • Impacts to large stretches of rivers, creeks, and streams in the Central Coast Region's major watersheds that have been severely polluted by toxicity from pesticides, nutrients, and sediment. Agricultural discharges have caused some creeks to be found toxic (lethal to aquatic life) every time the site is sampled. As a result, these areas are often completely devoid of the aquatic life essential for a healthy functioning ecosystem. The pollution in some of these areas also creates conditions that are unsafe for recreation and fishing.
Comment No. 164 from George	There is no mention of any geology or soil types related	See response to "Groundwater" comment in Letter 12 (Comment

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Kendall. Letter No. 116, p.1. Groundwater	to well nitrate loads or groundwater percolation. Water tables are generally fluid in nature and water percolating from one farm may not directly attribute to the underlying water table nitrate load.	No. 120)
Comment No. 477 from George Kendall. Letter No. 116, p.2. Implementation, Groundwater	We presume that the requirement for groundwater sampling and testing is to look for nitrate contamination from fertilizer use. Much data already exists in our watershed regarding ground water quality. The community service district downstream from our farm routinely tests its wells. Our own well testing has consistently shown very low (essentially undetectable) nitrate levels. With no large farms in our watershed, it is not remotely likely that normal ag activities.	Please see responses to Letter 21 (Comment No. 654) and Letter 77 (Comment No. 122).

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