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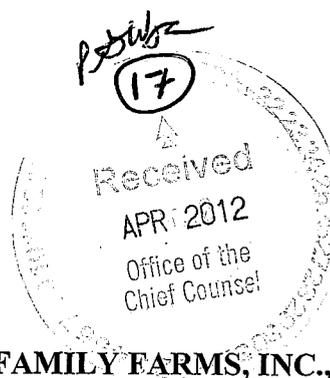
10 CALIFORNIA WATER RESOURCES CONTROL BOARD

11 In re: Jensen Family Farms, Inc., and

12 William Elliott,

13 Petitioners

) PETITION TO REVIEW MARCH 15,
) 2012 ADOPTION BY THE REGIONAL
) WATER QUALITY CONTROL BOARD,
) CENTRAL COAST REGION, OF
) ORDER No. R3-2012-0011
) (CONDITIONAL WAIVER OF WASTE
) DISCHARGE REQUIREMENTS FOR
) DISCHARGES FROM IRRIGATED
) LANDS)



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DIVISION OF WATER QUALITY

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1 Pursuant to Water Code §13320, Jensen Family Farms, Inc.¹ and William Elliott² (as
2 stakeholders and residents of Monterey and San Luis Obispo County, respectively) hereby
3 petition the State Water Resources control Board (“State Board”) to review the March 15, 2012
4 enactment by the Central Coast Regional Water Quality Control Board (“Regional Board”) of
5 Order No. R3-2012-0011 which adopted a “Conditional Waiver of Waste Discharge
6 Requirements for Discharges from Irrigated Lands” (“Conditional Ag Waiver”) that
7 significantly modified and replaced a Conditional Waiver adopted by the Regional Board in
8 2004 and extended by the Regional Board and twice by the Board’s Executive Officer.
9

10 **I. NAME AND CONTACT INFORMATION OF PETITIONER**

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12 ¹ Jensen Family Farms, Inc., is a family-owned farming corporation that owns and/or
13 operates six (6) separate farms in the Salinas Valley located between Chualar and Salinas which
14 total approximately 1140 acres currently in production. Those farms are located on (1) Spence
15 Road (which farm abuts Highway 101 as well as the Salinas River for over one mile and, in fact,
16 straddles both sides of the River; (2) Somavia Road (which abuts Highway 101 as well as the
17 Salinas River); (3-4) two farms on Old Stage Road; (5) Esperanza/Old Stage Road (which abuts
18 Highway 101 and is intersected by Esperanza Creek, an impaired water body); (6) Potter Road
19 (which abuts Highway 101); and (7) Blanco Road. It irrigates those farms from well water
20 pumped to the surface and by rain water. Various row crops consisting of iceberg lettuce,
21 romaine lettuce, red leaf lettuce, broccoli and asparagus are grown on the respective farms.
22 Jensen is the present corporate manifestation of what is a fourth-generation family farming
23 operation in the Salinas Valley that dates back more than 100 years. It is among the leaders of
24 “new” farming practices, having been among the first farming entity to engage in large-scale
25 organic farming (in this instance of asparagus) in the Salinas Valley. As a non-multinational non-
vertical agribusiness it thus has close ties to the Salinas Valley and, in fact, is preparing for the
next generation to carry on family traditions of nurturing the land. Owned, in great part, by
hunters, fishermen, and life-long farmers, it is dedicated to not only maintaining economically
viable farming in the Salinas Valley but also in taking actions consistent with necessary
reasonable environmental concerns about air, water, and the human environment as a whole.

26 ² It must be noted that Petitioner currently has pending before this Board a Petition seeking
27 review of the Regional Board’s Executive Officer (Roger Briggs) September 30, 2011 renewal
28 and extension, by Executive Officer Order R3-2011-0017 of the termination date of the 2004
29 Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands and
30 the Executive Officer’s concurrent Update[d] Monitoring and Reporting Program No. R3-2011-
31 0018 timely filed on or about October 29, 2011, that remains open and concerning which the
32 270-day “deemed denied” period has not yet lapsed.

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13 **II. REGIONAL BOARD ACTION BEING PETITIONED**

14 This Petition seeks review of the California Regional Water Quality Board, Central
15 Coast Region, Order No. R3-2012-2011, a true copy of which is Exhibit 1 hereto and is
16 incorporated herein by reference (as to the statements made rather than the truth of such
17 statements). As set forth below, a stay of the Order is being requested and is appropriate due to
18 a number of factors, including the proscribed ex parte communications between Regional Board
19 member Michael Johnston and the Regional Board Staff which led, in whole or in part, to
20 modifications in the Order and its adoption, as well as the patent violation of California law,
21 including the Porter-Cologne Water Quality Control Act, California's Environmental Quality
22 Act, and the constitutional right of Petitioners to due process and equal protection under the
23 United States and California constitutions, respectively.

24 **III. THE DATE THE REGIONAL BOARD ACTED**

25 March 15, 2012.

**IV. STATEMENT OF REASONS THE REGIONAL BOARD'S ADOPTION
OF ORDER NO. R3-2012-0011 WAS INAPPROPRIATE, IMPROPER,
AND ILLEGAL**

1 In addition to the reasons contained in other Petitions filed by stakeholders with this
2 Board concerning Order No. R3-2012-0011 (which insofar as they are not inconsistent with the
3 issues presented herein for review are incorporated herein by reference), Petitioners state the
4 following reasons establish that adoption of Order No. R3-2012-0011 was inappropriate,
5 improper, illegal, exceeded the statutory authority of the Regional Board, and otherwise violates
6 the constitutional rights of Petitioners:

- 7 1. Illegal and unauthorized ex parte communications were made by Regional Board
8 Member Michael Johnston ("Johnston") with the Regional Board's Executive
9 Director and other members of the Regional Board's staff (all of whom acted as
10 "advocates" of the Staff's proposal that was adopted as the Order) concerning,
11 among other things, the language of specific amendments Johnston wanted to
12 (and did) make to the Staff's proposal adopted by the Regional Board as Order
13 No. R3-2012-0011 without any input or discussion by the public or interested
14 members thereof, and indeed which were introduced and offered up by Member
15 Johnston only after the close of public comment;
- 16 2. The Regional Board failed to comply with the requirements of the Porter-Cologne
17 Water Quality Control Act, Cal. Water Code § 13000 et seq., and specifically §
18 13241 thereof, by failing to conduct, prior to the Order's adoption or at all, the
19 requisite study and consideration of economic considerations impacting the
20 Region as a result of the Order as well as housing development in the Region;
- 21 3. The Order -- in creating a 3-tier system which divides operations (farms,
22 vineyards, and other agricultural related entities such as nurseries) into three
23 categories for purposes of monitoring and administrative convenience depending
24 on the acreage, use of pesticides and fertilizers (chlorpyrifos or diazinon), and
25 proximity to a water body listed for toxicity, pesticides, nutrients, turbidity or
sediment on the 2010 List of Impaired Water Bodies ("3-tier system") -- violates
the due process rights of owners/operators of the tier-classified land by failing to
factor into the definition of which operations goes into which tier matters relating
to levels of sedimentation contained in run-off or other waters leaving the specific
farm or agricultural entity;
4. The Order, by providing the Regional Board's Executive Director with
unrestricted authority to reclassify operations of, for instance, a farm from one tier
to another without specific guidelines that inform the owner/operator of that farm
of the specific bases for reclassification or an appeal mechanism for such
reclassification, violates the due process rights of owners/operators;

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5. The 3-tier system, by failing to take into consideration the geology of the soil and subsoil strata of individual farms or other operations assigned to a given tier as well as the mechanism for return of water used for irrigation to the aquifer or surface bodies of water, is overbroad and overinclusive in violation of the Due Process and Equal Protection rights guaranteed by the United States and California constitutions, respectively;
6. The 3-tier system adopted by the Order is based on an unjustifiable and illegal expansion of the Regional Board's authority under the Porter-Cologne Act to, among other things, groundwater;
7. The Order, by mandating at minimum 30-foot buffer zone relative to impaired bodies of water without setting forth the initial point of measurement (*i.e.*, the middle of the impaired body, the mean high tide level of the impaired body, the bank or other feature of the body of water), is vague, ambiguous, overinclusive, and overbroad in violation of the Due Process rights guaranteed by the United States and California constitutions, respectively;
8. The Order, by creating a minimum 30-foot buffer zone relative to impaired bodies of water, affects a taking of real property in violation of the United States and California constitutions, respectively;
9. The Order, which necessarily requires the installation of infrastructure (for purposes of delivery and actual purification of water by mechanical means such as reverse osmosis) or the set-aside of land for purposes of creating catchment basins, affects a taking of real property in violation of the United States and California constitutions, respectively; and,
10. The Regional Board failed to adequately comply with the requirements of the California Environmental Quality Act by adopting a negative declaration for the Order, thereby failing to accurately or adequately assess and consider the possible significant impacts of the Order to the environment as a whole, including the steps necessary for compliance therewith. Rather than assess or even recognize significant impacts to the environment as whole (including such things as air quality, aesthetics, and agricultural resources), the Regional Board had a hydro-central focus that considered only impacts to water and found that the Order actually beneficially impacted that particular aspect of the environment. A copy of the environmental analysis conducted relative to the Order is Exhibit 2 hereto. Further, the Regional Board's determination that the findings contained in the negative declaration existing relative to the 2004 Conditional Waiver were

1 binding on the 2012 Order as a result of 14 C.C.R. § 15126(a) is wrong as a
2 matter of law and denies owners/operators of land within the Region their right to
due process.

3 **V. STATEMENT OF POINTS AND AUTHORITIES**

4 **A. Factual Background**

5 The factual background is fully set forth in the Order, Exhibit 1, and, with regard to the
6 facts only rather than the characterizations contained therein, is incorporated herein by reference
7 for purposes of convenience and to control the length of the Petition.

8 **B. Discussion Of The Order's Infirmities And Illegalities That Require
9 This Board To Refuse To Adopt The Order**

10 **1. Regional Board Member Michael Johnston Engaged In
11 Proscribed Ex Parte Communications With Members of the
Regional Board's Staff**

12 Ex parte communications between an advocate and a decision maker in the adjudicatory
13 proceeding is fundamentally at variance with accepted conceptions of due process and, further,
14 violates not only the Rules of this Board but also the California's Administrative Procedure Act
15 and precedents arising thereunder. The determination to adopt the Conditional Ag Waiver was
16 an "adjudicatory" proceeding in which proscribed ex parte communications may not occur
17 between the "advocates" for the waiver (the Regional Board's Staff assigned to the project,
18 including its Executive Director)³ and the "decision makers" (the Regional Board members).
19 However, in spite of this proscription and the inapplicability of any exception to the rule against
20 such communications taking place, Regional Board Member Johnston revealed the existence of
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22 ³ A point should be noted concerning the actions and physical placement of the Executive
23 Director during in the actual public hearing on this matter. Unlike most (or, likely, all) other
24 governmental boards, the Executive Director sits on an equal plain with the Board and, in fact, is
25 surrounded by members of the Board sitting on both sides of him, a position which allows him
from time-to-time to speak sub voce to members of the Board without having his comments
made part of the record. However, at other times, he speaks for the Staff and makes
presentations and representations on behalf of the Staff of which he is the head.

1 ex parte communications between himself and members of the Regional Board Staff concerning
2 certain amendments to findings he wanted to present and upon which adoption of the Conditional
3 Ag waiver was based: e.g.,

- 4 1. On March 14, 2012 during the first day of hearings of the latest Staff proposal
5 for the Conditional Ag waiver, Member Johnson stated that he had “consulted
6 with the Staff” regarding the proposal;⁴ and,
- 7 2. On March 15, 2012, just quite literally moments before a final vote was taken
8 by the Board adopting the Staff Proposal, as amended, Member Johnston
9 further revealed the nature of this prior “consultation” with the Staff
10 (including the Executive Officer) and that it included consultation on an
11 amendment he wanted to offer to Finding No. 11 of the Staff’s Proposal to
12 assure that his amendment was acceptable to the Staff (a conversation that
13 must necessarily have been with staff members advancing the adoption of the
14 proposed Order since who else would have the knowledge needed to reach the
15 determination of whether Johnston’s amendatory suggestions were consistent
16 with what the Staff wanted). The hearing transcript of the March 15 hearing
17 (the relevant portions of which are attached as Exhibit 3 hereto) provides:

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19 “I gather you’ve, Mr. Chairman, because it was shared with you,
20 although none of the other Board members, is I have worked with
21 the Executive Officer and counsel over the last week or so on this
22 on a couple of different pieces of language [amending Finding No.
23 11]” [March 15 Hearing Transcript at 94:5-9, 110: 13-15].

24 “MR. YOUNG: I think it’s a great proposal ... **So how much of**
25 **this did you write?**

24 ⁴ A transcript of the March 14, 2012 hearing has not yet been prepared by the Regional
25 Board. Petitioners will supplement this petition with a copy of the relevant pages of that
transcript when it becomes available.

MR. JOHNSTON: **About half** ... [March 15 Hearing Transcript 113: 18-25 (emphasis supplied)]

“MR. JOHNSTON: In answer to your question about how much I wrote, this was a back and forth between ... myself, [Executive Officer] Roger [Briggs], Frances [McChesney, counsel]. **And I would imagine that Roger was consulting other Staff on it**

MR. YOUNG: Right. **Is this acceptable to Staff?**

MR. BRIGGS: **That was the reason Mr. Johnston wanted to vet it instead of dropping it here to see if it would be acceptable...** “ [March 15, 2012 hearing Transcript 114:5-14 (emphasis supplied)].

In other words, the “decision maker” consulted with the “advocate” on the terms and language the “decision maker” wanted to include and adopt as the “final decision” in order to assure himself that the terms he wanted to adopt were acceptable to the “advocate”⁵ while, at the same time, not allowing any notice to the public that such an amendment would be made and, resultantly, precluding any “public” input into the process and contents of the Finding prior to the time it was presented. See ,e.g., English v. City of Long Beach (1950) 35 Cal.2d 155, 158. That is the paradigm of a proscribed ex parte communication. To put it bluntly, such contacts do not pass the “smell test” and taint the entirety of the final adoption of the Order. Indeed, as addressed elsewhere herein, the presence of such proscribed communications and taint require the entry of an immediate stay of the Order pending a final determination by this Board on the present (and other) petitions.

⁵ The existence of such ex parte communications and Johnston’s stated reasons for making them – i.e., “Mr. Johnston wanted to vet it instead of dropping it here to see if it would be acceptable [to the Staff]” – raises a real concern about the entirety of the procedures leading up to the Order’s adoption of the Proposal prepared by and otherwise approved by the Regional Board’s staff (including its Executive Officer). That concern, simply stated, is that the Regional Board simply accepted at face value and rubber-stamped what the Staff wanted, proposed, and wanted to have approved that would greatly increase their power over the agricultural community in the Region. If the situation were otherwise, why would an independent Regional Board member feel the necessity of obtaining the pre-approval by the Staff of changes he wanted to make in the Order as proposed by the Staff. That most certainly is a situation not envisioned by Porter-Cologne and clearly taints the public perception of the procedural fairness and constitutional compliance attending the adoption of the Order.

1 California's Administrative Procedure Act ("APA"), Govt. Code § 11430.10 et seq.
2 broadly prohibits ex parte contacts between agency parties and decision makers during
3 administrative adjudicative proceedings:

4 "While the proceeding is pending, there shall be *no communication, direct or*
5 *indirect, regarding any issue in the proceeding*, to the presiding officers from an
6 employee or representative of an agency that is a party ... without notice and
7 opportunity for all parties to participate in the communication."

8 Govt. Code § 11430.10(a)(italics added). A "presiding officer" is defined as an officer or
9 officers who preside over a hearing, [id at § 11405.80], but other provisions of the
10 Administrative Procedure Act expressly extend this prohibition to all decision makers, including
11 agency heads and their delegees, whether or not they preside over an evidentiary hearing:

12 "Subject to subdivision (b) [governing ratemaking proceedings], the provisions of
13 this article governing ex parte communications to the presiding officer also cover
14 ex parte communications in an adjudicative proceeding to the agency head or
15 other person or body to which the power to hear or decide in the proceeding is
16 delegated."

17 Id. at § 11430.70(a). The proscription against ex parte communications thus most assuredly
18 extends to communications with the Executive Officer as well as the lower-level members of the
19 Regional Board's Staff.

20 It is, of course, true that other provisions of the APA slightly narrow section 11430.10
21 prohibitions. As relevant here, communications are permitted regarding uncontroversial
22 procedural matters. See Section 11430.20(b). Further, an agency decision maker may receive
23 advice from **nonadversarial** agency personnel. That is, an otherwise prohibited ex parte
24 communication will be allowed if it is
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26 "for the purpose of assistance and advice to the presiding officer from a person
27 who has not served as investigator, prosecutor, or advocate in the proceeding or
28 its preadjudicative state. An assistant or adviser may evaluate the evidence in the
29 record but shall not furnish, augment, diminish, or modify the evidence in the
30 record."

1 Section 11430.30(a). However, neither of these exceptions permit adversarial agency Staff or
2 employees to have off-the-record contact about substantive issues with the agency head or other
3 persons or bodies to having the power to decide the issue such as members of the Regional
4 Board. Thus, as the California Supreme Court held in Department of Alcoholic Beverage
5 Control v. Alcoholic Beverage Control Appeals Bd. (2006) 40 Cal.4th 1, 10,

6 “the APA sets out a clear rule: An agency prosecutor cannot secretly
7 communicate with the agency decision maker or the decision maker’s adviser
8 about the substance of the case prior to issuance of a final decision.”

9 The APA’s proscriptions and exceptions have been adopted by this Board as well as the
10 Regional Board as evidenced by the September 17, 2008 Memorandum from the Office of the
11 Chief Counsel To this Board and the Regional Boards re. “TRANSMITTAL OF EX PARTE
12 COMMUNICATIONS QUESTIONS AND ANSWERS DOCUMENT.” As relevant here, this
13 Board defines an ex parte communication as being

14 “a communication to a board member from any person about a pending water
15 board matter that occurs in the absence of other parties to the matter and without
16 notice and opportunity for all parties to participate in the communication. People
17 often refer to these communications as ‘one-sided,’ ‘off-the-record,’ or private
communications between a board member and any person concerning a matter
that is pending or impending before the applicable water board.”

18 Id. at p. 1 (Question 1). This Board has determined that certain staff members may communicate
19 with board members without violating the ex parte rules:

20 “Certain staff may communicate with the board members without violating ex
21 parte rules. Staff may communicate with water board members about a pending
22 adjudicative proceeding under three circumstances. Staff and legal counsel will
23 generally be responsible for knowing their assignments on specific proceedings,
and will only contact board members if appropriate pursuant to one of the
following circumstances. ...

24 (1) *Staff Assigned to Assist and Advise the Board:* In virtually all
25 circumstances there are some staff (including at least one
attorney) assigned to assist and advise a water board. **These staff**

1 **members are not advocates for a particular action, and in fact,**
2 **cannot have served as ... advocates in the proceeding or its**
3 **pre-adjudicative stage for the ex parte exception to apply.**
4 **These staff members may evaluate the evidence in the record**
5 **but shall not furnish, augment, diminish, or modify the**
6 **evidence in the record....**

7 (2) *Staff Advising the Board on a Settlement Offer*

8 (3) *Staff Advising the Board in Nonprosecutorial Proceedings...*

9 Id. at pp. 8-9 (Question No. 22)(emphasis supplied, italics in original). As relevant here, the
10 Board has recognized that included amongst the consequences for violating the ex parte
11 communication prohibition are disqualification of the board member, and/or having the
12 communication “be used as a basis for a subsequent legal challenge to the board’s adjudicative
13 action, especially if the communication is not properly disclosed and the board member
14 participates in the proceeding.” Id. at p. 10 (Question No. 25).

15 It must also include the rejection of the Order and a remand of it to the Regional Board,
16 which remand could allow it to proceed without the taint of Johnston’s participation. Indeed, the
17 remedy for Member Johnston’s violation of the ex parte communication rules and the APA is
18 remand of the Resolution to the Regional Board for consideration of the matter untainted by such
19 conduct and, frankly, recusal of Member Johnston from any further consideration of the
20 Resolution or of the Conditional Ag. Waiver. Application of these remedies, however, does not
21 require or rest on the existence of prejudice to Petitioners from the ex parte communication. See
22 Rondon v. Alcoholic Beverage Control Appeals Bd. (2007) 151 Cal.App.4th 1274, 1290
23 (generally a violation of an unqualified prohibition on ex parte communication requires no
24 showing of prejudice to invoke the appropriate remedy.)
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1 The bottom line on all of this is that the Petitioners' right to due process under both the
2 United States and California Constitutions has been violated.⁶ See, e.g., RZS Holdings AVV v.
3 PDVSA Petroleo S.A. (4th Cir. 2007) 506 F.3d 350, 357. Without rejection and reversal of the
4 Resolution, robust civil rights claims can and will be made against the Board for such violations.
5 After all, as the United States Supreme Court held in Morgan v. United States (1938) 104 U.S. 1,
6 18:

7 "The right to a hearing embraces not only the right to present evidence, but also a
8 reasonable opportunity to know the claims of the opposing party and to meet
9 them. The right to submit argument implies that opportunity; otherwise the right
may be but a barren one."

10 That obviously did not occur. Even though both Member Johnston and the Staff knew of the
11 amendment that Johnston would be introducing before the meeting and, indeed, during the public
12 comment section of it, no disclosure was made of the amendment or the facts pertaining to the
13 Staff's involvement until after the public comment period had closed (which was, in fact, long
14 after the ability to submit any new matter or comment by the public had been ended by the
15 Regional Board.

16 **2. The Order Is Illegal Since It Fails To Comply With The**
17 **Requirements Of Water Code § 13241 Due To The Pre-Enactment**
18 **Failure By The Regional Board To Consider, Among Other Things,**
19 **Various Economic Considerations Relating To The Impact Of The**
Order

20 ⁶ See Morongo Band of Mission Indians v. State Water Resources Control Bd. (2009) 45
21 Cal.4th 731, 736:

22 "Under the Fifth Amendment to the United States Constitution, '[n]o person shall
23 ... be deprived of life, liberty, or property, without due process of law.' (See also
24 U.S. Const., 14th Amend. ['[n] state shall ... deprive any person of life, liberty, or
25 property, without due proves of law.']) In almost identical words, the California
Constitution likewise guarantees due process of law. (Cal. Const., art. I, §§ 7,
subd. (a) ['A person may not be deprived of lie, liberty or property without due
process of law'], 15 ['Persons may not ... be deprived of life, liberty or property
without the due process of law.'])"

1 The Order violates the Porter-Cologne Water Quality Control Act, Cal. Water Code §
2 13241.⁷ Section 13241 is of great import since it defines the duties of the regional boards and
3 provides, in pertinent part,

4 “Each regional board shall establish such water quality objectives in water quality
5 control plans as in its judgment will ensure the reasonable protection of beneficial
6 uses and the prevention of nuisance; however, it is recognized that it may be
7 possible for the quality of water to be changed to some degree without
unreasonably affecting beneficial uses. Factors to be considered by a regional
board in establishing water quality objectives shall include, but not necessarily be
limited to, all of the following: ...

8 **(d) Economic considerations.**

9 **(e) The need for developing housing within the region.**

10 **(f) The need to develop and use recycled water.”**

11 (Emphasis supplied). A review of the Order and its accompanying record reveals that the
12 Regional Board did not adequately, if at all, address these matters (a consideration or discussion
13 that is necessarily separate and apart from any discussion of such factors under a California
14 Environmental Quality Act analysis, particularly since economic considerations under CEQA are
15 relevant only insofar as they have a direct relationship to environmental effects.) This sort of

16 ⁷ As is noted in City of Burbank v. State Water Resources Control Bd., 35 Cal.4th 613, 619
17 (2005)(fns. omitted):

18 “In California, the controlling law is the Porter-Cologne Water Quality Control
19 Act.... [Citation.] Its goal is ‘to attain the highest water quality which is
20 reasonable, considering all demands being made and to be made on those waters
21 and the total values involved, beneficial and detrimental, economic and social,
22 tangible and intangible.’ (§ 13000) The task of accomplishing this belongs to the
23 State Water Resources Control Board (State Board) and the nine Regional Water
24 Quality Control Boards; together the State Board and the regional boards
25 comprise ‘the principal state agencies with primary responsibility’ for the
coordination and control of water quality.’ (§ 13001.) ... [¶] Whereas the State
Board establishes statewide policy for water quality control (§ 13140), the
regional boards ‘formulate and adopt water quality control plans for all areas
within [a] region’ (§ 13240). The regional boards’ water quality plans, called
‘basin plans,’ must address the beneficial uses to be protected as well as water
quality objectives, and they must establish a program of implementation. (§
13050, subd. (j).)”

1 patent violation of the statutory basis for the Board taking any action at all not only affects a
2 great embarrassment to the Board itself but, more importantly, also negatively impacts the
3 legality of the Board's actions as a whole since it renders its adopted Order categorically
4 arbitrary, unreasonable, and capricious.

5 Before proceeding with the economic impact of the Proposal, it should be noted that a
6 loss of production that would be associated with lands being set aside for the 30-foot buffer zone
7 conflicts with the California Leafy Green Marketing Agreement (see www.ccof.org/leafygreens)
8 and the "super metrics" adopted by the California food production industry to address food
9 safety concerns. Neither of these matters were, of course, discussed or even addressed by the
10 Staff in its Proposal or by the Regional Board in its enactment of the Order.

11 That the Order (just as the Proposal made by the Staff which was wholesale adopted by
12 the Regional Board) will have and has an enormous impact on the agricultural economy of the
13 Region – which is by far the largest segment of the Region's economy – is obvious to anyone
14 willing to look at the situation with open eyes and a non-hydrocentered focus. Indeed, it is not at
15 all speculation that the 30-foot buffer zone will cause literally thousands of acres of farmland
16 now under cultivation to cease being under cultivation. The direct economic impact of that is
17 obvious and non-speculative: fewer crops will be grown resulting in fewer crops being sold and
18 otherwise being made available to the public which lowers profits and the funds available for use
19 by the owner/operator to "grow" the Region's economy. All of these are a surefire means of
20 affecting economic stagnation in an industry which is now just about the only California industry
21 successfully working its way out of the current recession and economic downturn.
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23 The economic market place reaction alternative to lower profits for the farmer is, of
24 course, an increase by the farmer in the sale price of his produce. That increase directly results
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1 in higher food costs to the public (which, like higher gasoline costs) further contributes to
2 inflation and economic stagnation. That such would have a great effect on the ever-increasing
3 rate of inflation in the domestic economy and, particularly, in its food sector is obvious and was
4 ignored by the Staff (initially) and by the Regional Board in adopting the Order.

5 Further, the amount and a decrease in the value of the land currently under cultivation
6 which the Order affects due to the 30-foot buffer zones under the Order is the inexorable result
7 of having to let the buffer area lay fallow in terms of crop production. That will necessarily
8 result in a significant decrease in land values and accompanying property taxes paid which, in
9 turn, impacts the amounts of money available to local, county, and state governmental units
10 (including this Board). Such "economic considerations" was also overlooked, ignored, and
11 played no role in the decision to adopt the Order. Just as a decrease in property taxes will result
12 in further layoffs and furloughs of public employees, cutbacks in the number of laborers
13 necessary to service the agricultural industry in the Region occasioned by having significantly
14 fewer acres available for cultivation will occur: the results of that will be a reduction in the
15 monies being spent in the Region's economy, an increase in governmental benefits being paid to
16 the unemployed, a movement of individuals out of the region, increased foreclosures of homes
17 now being purchased by unemployed laborers, and the resulting impact on the taxes that may be
18 collected by the local and state governments. Indeed, a cascading detrimental economic effect
19 and impact is likely to occur as a result of the Order. But that apparently was of no moment,
20 concern, or of sufficient weight for the Board to consider prior to its enactment of the Order.

22 Other aspects of the Order (including the costs attendant to purchasing, maintaining, and
23 operating the technologies necessary to comply with the pollution control guidelines)⁸ will have
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25 ⁸ As addressed below, the conducting of the study of the economic considerations
emanating from enactment of the Order cannot be explained away or evaded by the statutory

1 a similar economic impact: farmers will have to charge more for their products in order to
2 maintain their presently slim profit margins, the cost of living and inflation will increase due to
3 the rising cost of agricultural products, laborers will either not be hired or will be terminated as
4 cost-savings measures necessary to maintain the economic integrity of the farms (the effect of
5 which will be the same as that mentioned above). A variety of other dire economic results will
6 also obtain. In other words, the “butterfly effect” poses a serious economic result to the Region
7 and, indeed, to the country’s economy as a whole (noting that, for instance, the CPI increased
8 approximately 1% in 1995 when, due to widespread flooding in the Salinas Valley, few crops
9 were harvested and the costs of vegetables/lettuce/berries, both domestic and imported,
10 increased).

11 These types of economic considerations were overlooked, ignored, and did not in any
12 way factor into setting the terms of the Order or in consideration of its impact on the farming,
13 viticulture, and nursery industries in the Region. See, e.g., City of Arcadia v. State Water
14 Resource Control Bd. (2006) 135 Cal.App.4th 1392, 1416-1418. That is a blatant violation of

16 limitation contained in Water Code § 13360(a) of the Regional Board’s authority to order
17 farmers, for instance, to acquire a given piece of machinery or other means necessary to comply
18 with the Order’s wastewater purification requirements:

19 “No waste discharge requirements or other order of a regional board shall
20 specify the design, location, type of construction, or particular manner in which
the compliance may be had with the requirement, order, ... “

21 However, the fact that the Regional Board may not specify which given technology must be used
22 in order to affect compliance with the discharge requirements does not mean that in conducting
23 either the “economic consideration” analysis required by Section 13241 or, for that matter, the
24 environmental impact analysis required under CEQA that such available means may be ignored
25 so as to avoid conducting the required analysis in a legally sufficient way. That is, for purposes
of example only, if the only technologically available means for purifying tail water to drinking
water purity level is reverse osmosis, then the economic impact attending the purchase,
operation, and maintenance of reverse osmosis machinery is an “economic consideration” that
must be investigated just as the installation of such a machinery has a possibly significant
environmental impact that must be factored into any CEQA analysis as discussed below.

1 Section 13241 which, without more, requires rejection of the Order by this Board and a remand
2 to the Regional Board with instructions to comply with the statute's requirements.

3 Indeed, the failure to comply with the requirements of Section 13241 is so blatant and has
4 such a pervasive impact that such a failure supplies more than an adequate basis for issuance of
5 an immediate stay of the Order pending final review by this Board.

6 **3. The Order's Creation Of A 3-Tier System Into Which All Irrigated**
7 **Lands Are Classified But Which Does Not Factor Into Its Parameters**
8 **The Release Of Sediment As A Definitional Matter For Tier Assignment**
9 **Renders The Order Arbitrary, Unreasonable, And Capricious And**
10 **Violates The Due Process Rights Of Owners/Operators**

11 The primary operational monitoring mechanism created by the Order is a 3-tier system
12 under which all owners/operators lands are categorized. The categorization factors are: (1) the
13 size of the farm (50 acres or under fall into Tier 1 while farms having greater than 500 acres fall
14 within Tier 3); (2) the use of chlorpyrifos or diazinon; (3) proximity to an impaired water body
15 (being at least 1000 feet from a surface body of water places it in Tier 1 while closer proximity
16 to surface bodies places it in Tier 3). The focus of the tier system is thus on the use of proscribed
17 pesticides or fertilizers since, after all, the environmental impact of nitrates is the primary target
18 of the Order. In creating these various tiers, however, the risk and amounts of sediment that
19 would be released by, for instance, Tier 1 farms is generally overlooked and, when addressed, is
20 addressed singularly as an afterthought. The failure to factor the threat of sedimentation in to the
21 definition of, for instance, Tier 1 is thus a fatal flaw since it excuses such a threat for farms
22 falling within that category while placing restrictions on farms falling into Category 3 (which
23 does deal with the sedimentation threat in terms of defining whether the land fits within that
24 category). Such uneven and disparate treatment renders the Order unreasonable and provides a
25 sound basis for its rejection.

1 **4. The Order Provides An Unrestricted Authority To The Executive**
2 **Director To Categorize Or Recategorize Land Into Different Tiers In The**
3 **Absence Of Any Specified Standards Or Acceptable Means Of Review**

4 A review of the Order reveals that almost total authority over agriculture, viticulture, and
5 nurseries in the Region is vested in the Executive Director. The Executive Director can, for
6 instance, decide whether a given farm should be recategorized from a Tier 1 status to a Tier 2 or
7 3 status. He may do so even though the Order does not specify the standards he is to apply in
8 making such a determination since whether the given farm – say one that is classified as a Tier 1
9 farm – has taken some action that informs his belief that it must be recategorized at his fiat and
10 without adequate review by the Regional Board. That falls within the paradigmatic definition of
11 what constitutes a deprivation of the due process rights of the owner/operator and serves as basis
12 for the rejection of the Order by this Board.

13 **5. The 3-Tier System Categorization Factors Do Not Take Important**
14 **Factors Into Account – Such As The Geology Of A Given Farm’s Soil Or**
15 **Subsurface Strata – In Assigning A Given Farm To A Given Tier**

16 In a purported effort to avoid having “one size fits all” rules for all areas within the
17 Central Coast Region to eradicate nitrates from the Region’s waters, the Order creates the above-
18 noted 3-tier system. However, in creating that system, the Order overlooked a key factor which
19 renders that system fatally flawed and violative of the due process rights of owners/operators of
20 agricultural land. That overlooked and unprocessed factor is the geology and subsurface strata
21 underlying the various areas within the Region as well as the mechanisms for return of water
22 used for irrigation to the aquifer or surface bodies of water. Failure to make such considerations
23 factors for determining into which Tier a given farm falls renders the Order so flawed and
24 deficient that it violates the constitutional rights of the property owner.
25

1 In an effort to punish all owners/operators for the abusive practices of only a few
2 owner/operators, the Order's 3-tier regime fails to take into account the assimilative capacity of
3 soil. There is considerable treatment of water that occurs as the water makes its way through the
4 soil profile. In many areas it can be reasonably expected that there will be significant dilution
5 and attenuation of constituents prior to reaching any groundwater extraction or egress point. In
6 addition, the Order fails to consider that the assimilative capacities of lands covered under the
7 Order vary greatly and that such capacities strongly define the threat to the environment that the
8 Order seeks to address and cure. Indiscriminately using first encountered zone measurements
9 may produce inconsistent and inaccurate results. Because there is a significant possibility that
10 dilution of constituents will occur before discharge reaches the level at which it is put to
11 beneficial use, and a substantial likelihood that groundwater data collected at the first
12 encountered zone will bear little relationship to the actual impact on beneficial uses in that area,
13 determining compliance with water quality objectives in the first encountered zone is
14 inappropriate.
15

16 Moreover, crop, soil, vadose zone, and/or groundwater uptake of potential contaminants
17 effectively mitigates pollution in many cases and are factors which the tiering system does not
18 take into account. As an example, clay layers exist in many parts of the groundwater system in
19 the Salinas Valley – such as Chualar clay which is uniquely located north of Chualar in
20 Monterey County⁹ – that prohibit or greatly inhibit the downward movement of water in many
21 areas, and thus isolate deeper waters with beneficial uses from contamination by possible
22 percolating water from irrigated lands. It cannot be – but was by the Order -- further overlooked
23 that water moves through soil due to two types of forces – gravity and capillary tension.
24

25 ⁹ See National Cooperative Soil Survey, "Chualar Series" (03/2003), which may be found
at http://socialseries.sc.egov.usda.gov/OSD_DOCS/C/Chualar.

1 Capillary forces pull water from wet areas into dry areas in any direction. Gravity pulls water
2 downward. Capillary forces vary greatly in magnitude depending on the water content in a given
3 soil and by soil texture. Capillary forces dominate flow conditions in unsaturated soils, while
4 gravity only governs flow in saturated soil conditions. See Gardner, Dr. W.H., How Water
5 Moves in Soil (University of Washington 1979). Thus,

- 6 1. Surface evaporation and transpiration can create extremely dry near-surface soil
7 conditions in more arid areas, such as many areas within the Central Coast region;
- 8 2. Soil moisture content generally increases with depth, so capillary forces can tend
9 to wick water from moist, deep percolation areas toward the adjacent near-surface
10 dry soils rather than downward. This is more likely where more thickness of
11 unsaturated sediments is present between the surface and deep groundwater.
- 12 3. Similarly, alternating layers of coarse- and fine-grained sediments can serve as
13 capillary breaks that also act to retard downward movement of groundwater.

14 The Order does not factor in such differentials and treats all dirt the same for purposes of
15 compliance and monitoring. That is an overwhelmingly flawed approach which renders the
16 Order and its central tiering feature totally arbitrary and an abuse of discretion.

17 **6. The Three-Tier Approach Is Based On An Unjustifiable And Illegal**
18 **Expansion Of The Regional Board's Authority As Set Forth In Porter-**
19 **Cologne.**

20 The Order rests on an unjustifiable and illegal expansion of the Regional Board's
21 authority. That authority includes surface water but does not extend to groundwater which the
22 Order most certainly includes within its proscriptive limits. The Order wrongfully assumes that
23 virtually all irrigated agricultural lands, including those that do not drain to surface waters of the
24 State, must be considered as discharging to groundwater (e.g., those lands falling into Category
25 1). That is a factually incorrect assumption. For example, lands that are farmed many hundreds
of feet above groundwater and use drip irrigation constituting only a few inches of irrigation

1 water during the summer months coupled with annual winter rainfall of less than ten inches – a
2 situation existing in large areas of the southern Salinas Valley -- have absolutely no percolation
3 or discharge to groundwater whatsoever, and much less have the capability of carrying a
4 contaminant from the surface many hundreds of feet to underlying underground water, which
5 itself may be decades or hundreds of years old, and may have originated dozens of miles away.
6 And yet, such lands fall within the Order.

7 This erroneous conclusion that all irrigated lands discharge to groundwater leads to the
8 erroneous conclusion that the Regional Board even has jurisdiction over all lands and under that
9 alleged jurisdiction the Regional Board has regulatory authority over all irrigators.¹⁰ That
10

11
12 ¹⁰ This is particularly so, for instance, with regard to cattle ranches which abound in number
13 and acreage within the Central Coast Region. These ranchers were faced with an economic
14 burden to comply with the 2004 regime which has actually been increased by the Order even
15 though the Board has failed in the administrative record or at all to demonstrate that their
16 operations have any a significant effect on water quality. Despite this, the Board's past and
17 present actions have presumed that the presence of cattle and grazing on irrigated pasture results
18 in a discharge of water that affects water quality. Additionally, the idea that the natural flow of
19 stormwater from non-irrigated land is presumed to constitute a discharge of waste to the waters
20 of the State and that irrigation of any portion of a parcel has rendered entire parcels – including
21 un-irrigated sections – subject to the Proposal's presumptions is without any factual support in
22 the Record. Thus, the Order should have – but did not – avoid the presumption that water
23 running off of irrigated pasture inherently constitutes a discharge of pathogens or other
24 constituents of concern. As stipulated by Porter-Cologne, only activities that discharge or
25 propose to discharge wastes that affect water quality must be covered by regulatory regimes
authorized by the Water Code.

20 Further, pursuing enforcement actions or sending Section 13267 letters based on the
21 broad assertion that, by irrigating a landowner is also discharging and therefore is subject to
22 restrictions and compliance under the Order is inconsistent with the law. Section 13267 of the
23 Water Code specifically states that “in requiring those reports, the regional board shall provide
24 the person with a written explanation with regard to the need for the reports, and shall identify
25 the evidence that supports requiring that person to provide the reports.” Requiring all irrigators
to comply with the Order without the Regional Board providing sufficient evidence
inappropriately shifts the burden of proof to the farmer or rancher where state law indisputably
requires the Regional Board to present evidence of a discharge prior to requiring compliance
under the Order. The Order should – but does not – recognize that not all irrigators within the
Region discharge and thus not all are subject to the regulation and categorization in to one of the
3 categories.

1 assertion of jurisdiction and the requirement that all irrigators must comply with the Proposal's
2 restrictions and mandates ignores the Regional Board limited authority relative to discharges that
3 affect the water quality of waters of the state. See Water Code § 13000 et seq.. This assumption
4 of discharge attempts also to shift the burden of proof from the Regional Board to the farm
5 owner or land operator to disprove the erroneous postulation that all irrigated lands discharge
6 water to groundwater. This is also inconsistent with the burden expressly outlined in Water
7 Code § 13267(b)(1), which states that the Regional Board "shall provide a written explanation of
8 the need for such reports and shall identify the evidence that support requiring reports."

9
10 A fundamental limitation of the Regional Board's authority to regulate irrigation
11 practices is that the activity must result in a "discharge of waste" that impacts water quality.
12 Simply because it would be "difficult" or would be "administratively inconvenient" to determine
13 whether individual irrigated lands are creating a discharge of waste does not eliminate the
14 Regional Board's statutory obligation to only regulate activities that actually create a discharge
15 of waste. The general notion underlying the Order is of groundwater's vulnerability, and that
16 notion is not a surrogate to establishing jurisdiction and cannot be used as the basis for (1)
17 assuming discharge to groundwater aquifers or (2) placing virtually all parcels in Tier 2 or 3. To
18 do so would be unreasonable because landowners would be faced with the burden of trying to
19 "prove" a negative, which if achievable at all, could only be done at unreasonably great expense.

20
21 **7. The Order's Imposition Of A 30-Foot Buffer Zone Adjacent To Impaired**
22 **Bodies Of Water Is Unconstitutional And Is Otherwise Defective Since**
23 **The Order Fails To Define The Incepting Point Of Measurement**

24 The Order mandates that each farm, vineyard, or nursery having irrigated lands abutting a
25 water body listed in the 2010 List of Impaired Water Bodies must create a 30-foot buffer zone
adjacent to the water body in which no cultivation can occur. However, the Order does not

1 specify whether measurement of that buffer begins at the bank (defining some definite bank as
2 opposed to one that changes with the rate of flow of the water), in the middle of the body of
3 water, or at the historic high or low water point. That makes it impossible for owners/operators
4 of such lands to know where they must place the buffer. That water bodies change course or
5 banks is too well-known to require elaboration. Indeed, writing relative to the Salinas River (a
6 river of greatest concern to the Regional Board), John Steinbeck described this particular feature:

7 “From both sides of the valley little streams slipped out of the hill canyons and
8 fell into the bed of the Salinas River. In the winter of wet years the streams ran
9 full-freshet, and they swelled the river until sometimes it raged and boiled, bank-
10 full, and then it was a destroyer. The river tore the edges of the farm lands and
11 washed whole acres down ... Then when the late spring came, the river drew in
12 from its edges and the sandbanks appeared. And in the summer the river didn't
13 run at all above ground. ... The Salinas was only a part-time river. The summer
14 sun drove it underground. It was not a fine river at all, but it was the only one we
15 had, and so we boasted about it – how dangerous it was in the wet winter and how
16 dry it was in a dry summer. You can boast about anything if it's all you have.
17 Maybe the less you have, the more you are required to boast.”

18 John Steinbeck, East of Eden at 1 (Viking Press 1952).

19 The result of this inexactness is that the Order affects a violation of the owner/operator's
20 constitutional right to due process. Without having been told of what is expected of them
21 relative to placement of the buffer zone, the owner/operator may not comply with the Order, a
22 paradigmatic situation long-recognized by the Courts as affecting a deprivation of the right to
23 due process.

24 **8. The Order's Requirement That Owner/Operators Create A 30-Foot
25 Buffer Zone Adjacent To Impaired Bodies Of Water Results In A
Regulatory Taking Of Real Property In Violation Of The United States
Constitution**

The Order's requirement that owner/operators create a 30-foot buffer zone from what is
now cultivated land having a value commensurate with its productivity is also unconstitutional

1 since it affects a regulatory takings of real property in violation of the Fifth Amendment to the
2 United States Constitution, made applicable to the States by the Fourteenth Amendment.

3 The Fifth Amendment of the United States Constitution, made applicable to the States
4 (and its political subdivisions such as the Board by the Fourteenth Amendment) specifically
5 protects private property from governmental incursions by preventing "private property [from]
6 be[ing] taken for public use without just compensation." U.S. Constitution, Amend. V.¹¹ The
7 "Fifth Amendment's guarantee that private property shall not be taken for a public use without
8 just compensation was designed to bar Government from forcing some people alone to bear
9 public burdens which, in all fairness and justice, should be borne by the public as a whole."
10 Armstrong v. United States, 364 U.S. 40, 49 (1960). Indeed, James Madison, often described as
11 "the Father of the Constitution,"¹² explained that such protection is government's chief
12 responsibility,¹³ because, in the words of Arthur Lee, a Founding Father from Virginia, property
13 is the "guardian of all rights."¹⁴

14
15
16 ¹¹ Yet, rather than the barrier of a property rule, the Constitution protects private property
17 by placing in front of the government the hurdle of a liability rule. See Preseault v. I.C.C. (1990)
18 494 U.S. 1, 11 ("[the Fifth Amendment] is designed 'to secure *compensation* in the event of
19 otherwise proper interference amounting to a taking' " (emphasis in original)). See generally
20 Guido Calabresi & Douglas A. Melamed, Property Rules, Liability Rules and Inalienability:
21 One View of the Cathedral. 85 Harv.L.Rev. 1089 (1972)(discussing property rules and liability
22 rules).

23 ¹² See, e.g., Gonzales v. Raich, (2005) 545 U.S. 1, 57 (2005)('Connor, J., dissenting); West
24 Lynn Creamery, Inc. v. Healy (1994) 512 U.S. 186, 193 n. 9; Nelson v. Carland (1843) 42 U.S.
25 265, 273. See generally Irving Brant, James Madison: Father of the Constitution, 1787-1800
(1950).

¹³ Thus, in a 1792 essay on property published in the National Gazette, James Madison
contended that because private property is the foundation of a civil society, property, "being the
end of government, that alone is a just government, which impartially secures to every man,
whatever is his own." James Madison, Property, in James Madison: Writings 515 (Jack Rakove
ed.1999).

1 Over the years, the law has distinguished three broad categories of takings: those defined
2 by the governments' powers of eminent domain,¹⁵ those resulting from a "physical invasion" by
3 the government without bringing an eminent domain proceeding,¹⁶ and those resulting from the
4 impact of regulation.^{17FN34} The first two, having an older lineage, could be referred to as
5 "traditional takings," and the latter two require a landowner to file an "inverse condemnation"
6 suit seeking just compensation. "While the typical taking occurs when the government acts to
7 condemn property in the exercise of its power of eminent domain, the entire doctrine of inverse
8 condemnation is predicated on the proposition that a taking may occur without such formal
9

10 ¹⁴ Indeed, Arthur Lee, a Virginia delegate to the Continental Congress, observed that "the
11 right of property is the guardian of every other right, and to deprive a people of this, is in fact to
12 deprive them of their liberty." James W. Ely, Jr., The Guardian Of Every Other Right: A
13 Constitutional History Of Property Rights 26 (2d ed.1998) (quoting Arthur Lee).

14 ¹⁵ "Eminent domain refers to a legal proceeding in which a government asserts its authority
15 to condemn property," in exchange for payment of just compensation to the landowner. Agins v.
16 City of Tiburon (1980) 447 U.S. 255, 258 n. 2. "At the time of the writing of the Constitution
17 and for many years thereafter a government taking meant exactly that-the Government would
18 physically occupy the land." Hendler v. United States (Fed.Cir. 1991) 952 F.2d 1364, 1371.
19 Before the Civil War, most constitutional issues concerning private property and economic rights
20 and liberties arose under the Commerce Clause and the Contracts Clause. The federal
21 government "undertook relatively few projects"; accordingly, it did not make much use of
22 eminent domain. Due to its relative rarity, "the use of eminent domain to take private property
23 did not receive much attention from the federal courts" during this period. Yet when the
24 government did use eminent domain, it was clear that the Constitution required the government
25 to pay the landowner just compensation. See Calder v. Bull (1798) 3 U.S. (Dall.) 386, 400
(concluding that when landowners must give up their land for public use, "justice is done by
allowing them a reasonable equivalent"). In fact, "[m]uch of the law of eminent domain-both
statutory and case-developed for the purpose of providing the procedural structure for
government takings; the main issue in the cases was what compensation was just." Hendler, 952
F.2d at 1371.

22 ¹⁶ See, e.g., Loretto v. Teleprompter Manhattan CATV Corp. (1982) 458 U.S. 419, 441.
23 The aftermath of the Civil War, coupled with industrialization and the growth of corporate
24 enterprise, transformed economic life in America. Land became more valuable as the country
25 became more prosperous and more settled; the states began to take a much more active role in
regulating economic affairs and uses of property.

¹⁷ See, e.g., Penn Central Transp. Co. v. New York (1978) 438 U.S. 104.

1 proceedings.” First English Evangelical Lutheran Church v. County of Los Angeles (1987) 482
2 U.S. 304, 316. Traditionally, all three categories covered interference with private property “to
3 an extent that, as between private parties, a servitude is taken.” United States v. Dickson (1947)
4 331 U.S. 745, 748.

5 Of application here, of course, is regulatory takings. Although subject to a long period of
6 evolutionary growth which may prove important in litigation (rather than here), such takings
7 does apply to Jensen. It is settled now that Government regulation goes “too far,” and affects a
8 total or “categorical” taking, when it deprives a landowner of all economically viable use of his
9 “parcel as a whole.” See Palm Beach Isles Assocs. v. United States (Fed.Cir. 2000) 231 F.3d
10 1354, 1259-1360 (differentiating categorical takings from partial ones). If the taking is not of the
11 entire parcel as a whole, either temporally or by its metes and bounds, government regulation can
12 still effect a partial taking pursuant to the fact-intensive Penn Central balancing test: i.e.,

14 “a court determines when regulation goes “too far” and effects a taking by
15 balancing: (1) the “economic impact of the regulation on the claimant”; (2) “the
16 extent to which the regulation has interfered with distinct investment backed
expectations”; and (3) “the character of the governmental action.”

17 Penn Central Transportation Co. v. New York, 438 U.S. at 124. And, once an uncompensated
18 taking has occurred, the remedy is for government to provide just compensation for what it has
19 taken, even if the government action causing the taking is later rescinded, discontinued, or
20 abrogated. Further, for a court to find an unconstitutional taking by applying either the per se rule
21 or the Penn Central balancing test, the property owner must establish a legitimate property
22 interest that is detrimentally affected by the governmental action. See, e.g., Air Pegasus of D.C.
23 Inc. v. United States (Fed.Cir. 2005) 434 F.3d 1206, 1212 (observing that only those with a valid
24 property interest are entitled to just compensation).
25

1 Applying these factors to owners/operators of agricultural land falling within the Order's
2 ambit, the owner obviously possesses the requisite property interest protected by the Fifth
3 Amendment: a fee simple in agricultural lands subject to the Order. So the inquiry then moves
4 on to whether the Board's action constitutes a taking" of that interest. The so-called "categorical
5 test" – which applies only in those instances where government action has eliminated "all value"
6 from the land may or may not apply here, depending on whether some vestigial value remains
7 for the 30-foot buffer zone (although more likely than not, all value has been eliminated).
8 Regardless, the Order will deprive the property owner of the "highest and best use" of all the
9 property (highly producing agricultural farm land). The takings still occurs and the only affected
10 thing is the amount of compensation that needs to be paid. The regulatory character of the
11 Board's action – based as it allegedly is a myopically narrow concern only with water pollution
12 (even though, as noted below, more significant negative impacts arise from the implementation
13 of the Order than are affected by the Order) – does serve as an adequate excuse or preventative
14 measure that overcomes the partial takings that is affected by the Order. See, e.g., Tahoe-Sierra
15 Pres. Council v. Tahoe Reg'l Planning Agency (2002) 535 U.S. 301..
16

17 . The takings that will occur extends to the width and breadth of the Central Coast Counties
18 and implicates some of the most valuable farmland in the United States, having values from
19 approximately \$20,000 an acre to \$50,000 per acre (even in these times of depressed real estate
20 prices). With the legal sufficiency of the Order being as tenuous as it is due to the un- and non-
21 considered significant environmental impacts that may be affected by it, the additional risk that a
22 takings – even if temporary and lasting only one growing season – will occur should cause the
23 Board to reject the Order. The alternative is a myriad of takings lawsuits and verdicts against the
24 Board amounting to many millions of dollars (a result that will have a far-reaching effect on the
25

1 Regional Board's ability to maintain itself and its staff or, for that matter, to its ability to affect
2 its statutory mandates).

3 **9. The Unconstitutional Takings Of Real Property That Will Occur As A**
4 **Result Of The Order Includes A Takings Arising From The Necessity To**
5 **Take Land Currently Under Cultivation Out Of Cultivation In Order To**
6 **Place The Mechanisms Necessary To Comply With The Water**
7 **Purification Ordered By The Board**

8 Under the same law set forth above, a further takings of real property will result due to
9 the necessity for the owner/operator to take land that is currently under cultivation out of
10 cultivation in order to install the infrastructure (such as evaporation catchment pools, piping, and
11 reverse osmosis (or other) purification machines on that land.

12 **10. The Requirements Of California's Environmental Quality Act Were Not**
13 **Complied With Prior To And Coterminous With The Order's Enactment**

14 The Record underlying enactment of the Order reveals the underlying belief of the
15 Regional Board and its Staff that major modifications of the 2004 Conditional Waiver by
16 enactment of the 2012 Order was required due to great and significant deleterious impacts on the
17 waters of the Region that occurred between 2004 and the current Order's enactment caused by
18 farming practices (e.g., the use of nitrate fertilizers). The Record, in fact, is larded with
19 statements to that effect. Indeed, the length of time and myriad of Staff proposals which led to
20 the 2012 Order belies the Order's simplistic conclusion that "substantial changes" were not made
21 to the 2004 Order by the 2012 Order. However, the Board essentially adopted a negative
22 declaration identical to that adopted relative to the 2004 Conditional Waiver (and, in fact, took
23 the position that the 2004 negative declaration and "evidence" was determinative and binding in
24 2012):

25 "The Central Coast Water Board concludes that adoption of and compliance with
the Preliminary Draft irrigated Ag Order will not have a significant negative

1 impact on the environment.”

2 Such a conclusion contains an intrinsic inconsistency which leads inexorably to the conclusion
3 that the adequate environmental review required by CEQA relative to the 2012 Order was not
4 done and, accordingly, the Order failed to comply with California law. That inconsistency is that
5 it simply cannot be the case that such a purported drastic impact on the water aspect of the
6 environment could take place but that (1) the technology necessary to meet the water purification
7 standards mandated by the 2012 Order had not evolved or been created anew since the seven (7)
8 public comments concerning the 2004 Order’s environmental impact were initially considered,
9 (2) that the Central Coast Region has not changed a great deal since 2004, and (3) such matters
10 would have no significant impact on the non-water aspects of the environment. Thus, the
11 Regional Board’s assertion at page 10 of the 2012 Order that all that it entails is a “renewal” of
12 the 2004 Order “with clarifications and new conditions” so that a subsequent environmental
13 impact report (“SEIR”) is not needed under 14 C.C.R. § 15162(a)¹⁸ is belied by the facts. Quite
14 simply, just because the Regional Board says that it is so does not make it so in the real world
15 where new technologies have been created or modified by which the water purification standards
16

17 ¹⁸ Section 15162(a) provides that no SEIR shall be prepared due to the 2004 adoption of a
18 negative declaration if one or more of the following exists:

19 “(1) if substantial changes are proposed in the project which will require major
20 revisions of the previous ... negative declaration due to the involvement of new
21 significant effects or a substantial increase in the severity of previously identified
22 effects; or,

22 (2) If substantial changes occur with respect to the circumstances under which the
23 project is undertaken which will require major revisions of the previous ...
24 negative declaration due to the involvement of new significant impacts or a
25 substantial increase in the severity of previously identified significant effects; or

(3) If new information of substantial importance which was not known and could
not have been known with the exercise of reasonable diligence at the time the
previous ... negative declaration was adopted, becomes available.”

1 can be met¹⁹ and where the circumstances have greatly changed (a conclusion established by the
2 Regional Board's very reasons for enactment of the 2012 Order.

3 **a. CEQA Requirements Were Not Met By The Regional Board**

4 Appreciation of the conclusion that the Regional Board did not comply with CEQA's
5 requirements relative to the Order arises from establishing what those requirements are. As the
6 California Supreme Court noted in Sierra Club v. State Bd. Of Forestry (1994) 7 Cal.4th 1215,
7 1233, "CEQA compels government first to identify the environmental effects of projects, and
8 then to mitigate those adverse effects through the imposition of feasible mitigation measures or
9 through the selection of feasible alternatives." If a project – such as the Conditional Waiver and
10 its implementation – does not have feasible alternatives or mitigation measures that can
11 substantially lessen or avoid those effect, the project should not be approved. See Mountain
12 Lion Foundation v. Fish & Game Com. (1997) 16 Cal.4th 105, 134. CEQA is implemented
13 through initial studies, negative declarations and EIR's. It requires a governmental agency – such
14 as the Board in its capacity as Lead Agency on his particular "project" -- to prepare an EIR
15 whenever it considers approval of a proposed project that "may have a significant effect on the
16 environment." Quail Botanical Gardens Foundation, Inc. v. City of Encinatas (1994) 29
17 Cal.App.4th 1597, 1601 (1994); Cal. Pub.Res. Code § 21100. Thus, if there is no substantial
18 evidence a project "may have a significant effect on the environment" or the initial study
19 identifies potential significant effects, but provides for mitigation revisions which make such
20

21 ¹⁹ For that matter, the success of the 2012 Order rests on the existence of technologies
22 sufficient to allow owners/operators to meet the water purification standards imposed upon them.
23 That is, the 2012 Order's promulgation must rest on the concept of "technological feasibility."
24 That is, technology must exist or will exist in the timeframe set for compliance to begin by which
25 compliance with the regulation's guidelines can be accomplished. See, e.g., Vigil v. Leavitt (9th
Cir. 2004) 381 F.3d 826; International Harvester Company v. Ruckelshaus D.C.Cir. 1974) 478
F.2d 615; In re. Operation of the Missouri River System (D.Minn. 2004) 363 F.Supp.2d 1145;
Kandra v. United States (D. Ore. 2001) 145 F.Supp.2d 1192. If it does not then the regime is
arbitrary, unreasonable, and capricious.

1 effects insignificant, a public agency must adopt a negative declaration to such effect and, as a
2 result, no EIR is required. Cal.Pub.Res. Code §§ 21980(d), 21064. However, the Supreme
3 Court has repeatedly recognized that an EIR must be prepared and a negative declaration cannot
4 be certified :whenever it can be fairly argued that the project **may** have significant environmental
5 impact. No Oil Co. v. City of Los Angeles (1974) 13 Cal.3d 68, 75 (1974). The evidence
6 necessary to this determination can be anecdotal or a matter of opinion (such as the value of real
7 property or loss thereof may be established by the “opinion” of the land’s owner). CASE

8 What constitutes a “significant effect on the environment” is has a common regulatory
9 definition:

10 “Significant effect on the environment; means a substantial, or potentially
11 substantial, adverse change in any of the physical conditions within the area
12 affected by the project including land, air, water, minerals, flora, fauna, ambient
13 noise, and objects of historic or aesthetic significance. An economic or social
14 change by itself shall not be considered a significant effect on the environment. A
social or economic change related to a physical change may be considered in
determining whether the physical change is significant.”

15 14 C.C.R. 15382. A “significant effect on the environment’ is thus “limited to substantial, or
16 **potentially substantial**, adverse changes” in physical conditions which exist within the area as
17 defined in Cal. Pub.Res. Code § 21060.5 (emphasis supplied). Pub.Res. Code § 21060.5 defines
18 ‘environment’ as ‘the physical conditions which exist within the area which will be affected by a
19 proposed project, including land, air, water, minerals, flora, fauna, noise, objects of historic or
20 aesthetic significance.’ See also Lighthouse Field Beach Rescue v. City of Santa Cruz (2005)
21 131 Cal.App.4th 1170, 1180.

22 The failure to comply with CEQA’s requirements is fatal to the Order. As was noted in
23 State Water Resources Control Bd. Cases (2006) 136 Cal.App.4th 674, 723:
24

25 “In a mandate proceeding to review an agency's decision for compliance with

1 CEQA, we review the administrative record to determine whether the agency
2 abused its discretion. 'Abuse of discretion is shown if (1) the agency has not
3 proceeded in a manner required by law, or (2) the determination is not supported
4 by substantial evidence.' 'When the informational requirements of CEQA are not
5 complied with, an agency has failed to proceed in "a manner required by law" and
6 has therefore abused its discretion.' Furthermore, 'when an agency fails to
7 proceed as required by harmless error analysis is inapplicable. The failure to
8 comply with the law subverts the purposes of CEQA if it omits material necessary
9 to informed decisionmaking and informed public participation. Case law is clear
10 that, in such cases, the error is prejudicial.' (Internal citations omitted)

11 See also County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931,
12 945-946. This same principle applies to consideration of CEQA compliance by this Board.

13 **b. A Review Of The Regional Board's Negative Declaration**
14 **Underlying The Order Establishes That CEQA's Requirements**
15 **Have Not Been Met And That An SEIR Must Be Prepared**

16 Giving life to the unacceptable and ultimately self-defeating bureaucratic philosophy that
17 "the ends justify the means," the Order is based on an environmental quality analysis that flaunts
18 both the purpose and requirements of the California Environmental Quality Act, Pub. Res. Code
19 § 21000 et seq. It focuses entirely on only the purported "direct" impact of the proposal itself
20 without factoring in the Proposal's implementation by the agricultural community in order to
21 comply with the guidelines set by the Board relative to purification of irrigation water running
22 off the land to drinking water purity. It thus creates its own little world where the water is purer
23 but, in the cause of such purity, the remainder of the environment is left to go to hell.

24 Under the rubric of Water Code § 13360 that since the Regional Board may not specify
25 the manner of compliance with the orders of the Board to be chosen by owner/operators, it would
be too speculative and thus unnecessary for it to assess the reasonably foreseeable significant
environmental impacts that use of available technology necessary to meet purification standards
would have. This contravenes its duty to consider the "reasonably foreseeable indirect physical
changes in the environment which may be caused by the project," [CEQA Guidelines, §

1 15064(d)] arising from the owner/operator's use of known technological means. Since
2 "technological feasibility" is a requisite for the very existence of the Order's regulatory regime,
3 the Board is obviously aware (particularly since it was told by owner/operators of this fact prior
4 to adoption of the Order) of the existence of the 3 primary technological means by which
5 compliance might be achieved: i.e., (1) reverse osmosis, (2) reverse ion exchange, and (3)
6 catchment basins located on each farm into which all water drains and from which no water is
7 released that will flow into rivers and other bodies of water of concern to the Board.

8 The Regional Board, however, ignored the existence of these technologies as well as the
9 fact that they are the only means by which the mandated purification standards can be achieved.
10 That was an abuse of discretion since the size, energy source, and other matters relating to those
11 machines (including removal of the extracted chemicals and residues) pose an obvious
12 significant impact on the non-water aspects of the environment. As relevant here, current
13 technology presents, as noted, two different types of equipment necessary to purify tail water: a
14 reverse osmosis unit or a reverse ion exchange unit. Siemens Water Technology Corp.
15 ("Siemens") is one of the prominent manufacturers and distributors of that type of equipment. A
16 review of the various reverse osmosis equipment sold by it – all of which can be located at its
17 official Internet website at www.Siemans.com/water – reveals that the units necessary to meet
18 the purification standards (and, particularly in view of the need under the Order for the farmer to
19 err on the side of having equipment that has too large a volume than that which has a smaller
20 volume in terms of the amount of water purified per minute) are diesel-fuel powered and quite
21 sizeable.
22

23 One of the Siemens unit models that appear to be a prime candidate for agricultural use
24 (since it has a flow rate of 25 to 150 gallons per hour, respectively) is described as having the
25

1 overall dimensions (width x depth x height in inches) as follows:

2 168 x 40 x 78

3 201 x 41 x 78

4 196 x 56 x 90

5 277 x 56 x 91

6 277 x 58 x 91

7 In other words, these units generally are at least 14 (and as large as 23) feet wide, 3.5 feet to 5.75
8 feet deep and 6.33 (to 7.6) feet high. Since such a unit would be needed at each discharge point
9 (and since there are multiple discharge points per field), it can be easily comprehended (but
10 certainly was not by the Board's environmental review) that literally tens of thousands of these
11 units would be placed on farm land in the Region. In each instance, operation of the equipment
12 would produce by-products consisting of chemicals, salts, minerals, and other substances
13 extracted from the water (which would likely have to be stored at least temporarily on site either
14 in large metal storage containers or in lined open air pits in order to avoid leeching into the soil).

15 Of course, the number of units might be marginally reduced by the construction of
16 infrastructure on each farm (such as above-ground pipes) that would more centralize the
17 discharge points. The purified water produced in the process could also be allowed to run off the
18 land or could be retained and stored for sale as bottled water by the owner/operator of the
19 irrigated lands. (A review of bottled water sold in stores and markets in California reveals that a
20 large amount of it, according to the mandated label notation, is the product of reverse osmosis.
21 A trip to Costco and inspection of the Kirkland brand bottled water reveals this to be so.) Since
22 each is a relatively sophisticated piece of equipment, each would require on-site maintenance (on
23 both a routine and special-needs basis) which would increase vehicle traffic. That increase in
24 traffic would, of course, be made manifold by the increase in traffic occasioned by vehicles
25 removing all of the by-products and sludge produced in the purification process (a particular

1 need in order to avoid any untoward leakage back into the soil or discharge water). The
2 cascading significant environmental impact caused by each unit – and, of course, the cumulative
3 thousands of such units spread all over the 400,000 acres presently in production (although such
4 acreage will be markedly reduced by the 30 foot set off) – was simply overlooked by the Board
5 in its environmental analysis.

6 It must be and is reasonably foreseeable that the owners or operators of agricultural lands
7 will use one or more of the just-delineated three technologies. That is all that is required for
8 them to be included in the analysis of significant environmental impacts. It is obvious that the
9 decision to not consider them arose from the realization of the immensely significant negative
10 impacts on the environment that the use of one or more of these technologies create. After all,
11 “In evaluating the significance of the environmental effect of a project, the lead agency shall
12 consider direct physical changes in the environment which **may be** caused by the project and
13 **reasonably foreseeable indirect physical changes in the environment** which **may be** caused
14 by the project.” State CEQA Guidelines, § 15064(d) (emphasis supplied). “An indirect physical
15 change in the environment is a physical change in the environment which is not immediately
16 related to the project, but which is caused indirectly by the project. If a direct physical change in
17 the environment in turn causes another change in the environment, then the other change is an
18 indirect physical change in the environment. Id. § 15064(d)(2). Thus, the failure to analyze the
19 foreseeable impacts of the three technologies dooms the Order based on the insufficiency of its
20 CEQA compliance.
21

22 The conclusion of the Order’s Initial Study and Environmental Checklist as adopted is
23 inconsistent with and violates CEQA. That conclusion, of course, is that the Order is good for
24 the hydro-environment and, in “fact” is so “good” that it will not have any negative impact on
25

1 anything. Ignoring the use of the only technologies by which compliance with the Board's
2 guidelines can be conceivably met, the Order is based on a determination, made with regard to
3 the 79 (excluding subparts) sections appearing on the CEQA Environmental Checklist (which is
4 composed of 17 separate categories), that the impact runs the gamut from "no impact" on 75 of
5 them and "less than significant impact" on the remaining 4. Those four deal with the conversion
6 of farmland to non-agricultural use and the effect on the riparian habitat or wetlands. As a result
7 of that conclusion, no post-2004 SEIR is required in the opinion of the Board. Such a conclusion
8 is both factually and legally incorrect. Indeed, it either fails to recognize or take into account the
9 actual or potential significant environmental impacts on 11 of the 17 categories listed in the
10 CEQA checklist including, notably the following numbered items:

- 11
12 (1) Aesthetics (impacts on scenic vistas and resources through, among other things, the
13 construction of numerous and sizeable water treatment facilities (such as large
14 reverse osmosis equipment) on lands abutting or otherwise adjacent to major scenic
15 thoroughfares such as Highway 101, Highway 1 (Pacific Coast Highway),
16 Highway 46 (in San Luis Obispo County), River Road (in Monterey County),
17 Halcyon Road (in San Luis Obispo County), Vineyard Drive (in San Luis Obispo
18 County), and Highways 154 and 246 (in Santa Barbara County);
- 19
20 (2) Agricultural resources (the imposition of a 30 foot buffer zone replacing
21 agricultural lands abutting such things as the Salinas River and all streams and
22 sloughs discharging water into the river or Monterey Bay that are on the list of
23 endangered water bodies translates directly into the loss of literally thousands of
24 acres of now-fertile and producing agricultural lands);
- 25
26 (3) Air quality (additional air pollution arising from the introduction of literally
27 thousands of agricultural land-sited diesel-fueled water treatment facilities, as well
28 as from additional vehicle traffic arising from the need to service such facilities
29 (including the removal of the water purification chemical byproducts as well as the
30 purified water [the latter being available for bottling and commercial sale as
31 drinking water], pollution caused by the construction and working of local
32 facilities to treat the chemical byproducts and to-be-bottled water);
- 33
34 (4) Biological resources (the potential loss of discharged water draining into the rivers

1 and bodies of water in the Coastal Region due to the sale, by the farmers either
2 independently or cooperatively, of the drinking-water pure water produced on their
3 lands would directly impact the amounts of water in which protected or "of
4 concern" species live);

5 (7) Hazards and Hazardous Materials (arising from the transport, use or disposal of
6 chemicals and other by-products of the water purification process by famers either
7 independently or cooperatively);

8 (8) Hydrology and Water Quality (including those items discussed with regard to
9 biological resources ante, depletion of ground water resources or interference with
10 ground water discharge, alteration of the existing drainage patters);

11 (11)Noise (the addition of noise from the operation of the treatment facilities, traffic-
12 related-to the maintenance and care of those facilities as well as transportation of
13 by-products);

14 (12)Population and Housing (including the loss of population that would result from
15 the loss of land presently used for agricultural purposes from imposition of the
16 various buffers and setbacks which would thus displace substantial numbers of
17 people, necessitating the construction of replacement housing elsewhere);

18 (15) Transportation/Traffic (increase in the number and frequency of vehicle usage of
19 the highways and roads due to the need for servicing of the treatment facilities,
20 construction of those facilities, the removal of by-products, and other related
21 matters);

22 (16)Utilities and Service Systems (construction of numerous new water treatment
23 facilities on each farm or tract of land within the Region that presently
24 "discharges" water that will produce the significant environmental effects
25 discussed herein); and,

(17)Mandatory findings of significance (cumulative considerable impacts on the
environment which will cause substantial adverse effects in terms of income and
other matters relating to the human environment).

21 Air pollution caused by running the diesel-powered osmosis machines is, according to
22 rules adopted by the California Air Resources Board ("CARB") and the Monterey Bay Unified
23 Air Pollution Control District, a matter having a significant impact on the environment.
24 Concerned with the amount of emissions being released into the atmosphere by diesel-fueled
25 engines used in agricultural operations throughout California (including the Salinas Valley),

1 CARB issued regulations limiting such emissions. As set forth in CARB Resolution 3-30
2 (February 26, 2004, CARB had studied the effect of such emission and found:

3 “Excessive diesel exhaust particulate matter emissions for stationary
4 compression-ignition engines, most of which are diesel-fueled, are a significant
5 source of toxic air contaminates which contribute significantly to serious air
6 pollution in communities and across the State.”

7 This and other documents providing studies and the views of CARB concerning pollution caused
8 by diesel-fueled engines used in agricultural operations may be found at the CARB’s official
9 Internet website at www.arb.ca.gov. Issued pursuant to Cal. Health & Safety Code § 39666,²⁰ 17
10 C.C.R. § 93115 sets fuel and emissions standards for and applies to “any person who owns or
11 operates” “stationary CI engine in California with a rated brake horsepower greater than 50 (>50
12 bhp).” Section 93115.2(b). The Monterey Bay Unified Air Pollution Control District, acting
13 pursuant this authority, adopted and issued Rule 1010 which is entitled “Air Toxic Control
14 Measure for Stationary Compression Engines,” has as its stated purpose:

15 “to reduce diesel particulate matter (PM) from stationary diesel-fueled
16 compression ignition (CI) engines and consistent with California Health and
17 Safety Code Section 39666(d) is a replacement rule for 17 California Code of
18 Regulations Section 93116 [sic], Airborne Toxic Control Measure for Stationary
19 Compression Ignition Engines.”

20 Rule 1010.1.1. It applies to, among others, “any person who owns or operates a stationary CI
21 engine in the District with a rated brake horsepower greater than 50 (> 50 bhp).” While Rule
22 1010, subpart 1.3, specifically exempts agricultural CI engines from the operation of certain
23 emission and fuel requirements and standards (including those for emergency standby diesel-
24 fueled CI engines (> 50 bhp), [subpart 3.2], stationary prime diesel-fueled CI engines (>50 bhp),
25

20 H & S Code §39666, in pertinent part, provides: “(a) Following a noticed public
24 hearing, the state board [CARB] shall adopt airborne toxic control measures to reduce emissions
25 of toxic air contaminants from nonvehicular sources.”

1 [subpart 3.3], and certain record-keeping, reporting and monitoring requirements, [Subpart
2 4.1.1]), it specifically imposes fuel and emission standards on diesel engines used in agricultural
3 operations. I.e.:

4 "No person shall sell, purchase, or lease for use in the District any new stationary
5 diesel-fueled engine to be used in agricultural operations that has a rated brake
6 horsepower greater than 50, or operate any new stationary diesel-fueled engine to
be used in agricultural operations that has a rated brake horsepower greater than
50, unless the engine meets all of the follow emission performance standards..."

7 Rule 1010.3.4.1. Serious penalties attach for the failure to register such engines and to otherwise
8 comply with the emission standard. In other words, CARB and the Monterey Bay Unified Air
9 Quality etc. Board have found and taken action pertaining to diesel-fueled engines used in
10 agricultural operations throughout all, or most, of this Region.

11 These regulations and rules were issued due to documented concerns with the air
12 pollution particularly caused by diesel-fueled engines used in agricultural operations (which will
13 now as a result of the Order's adoption, include water purification technologies). While those
14 engines were traditionally used solely for purposes of pumping irrigation water (and were
15 generally limited to a centralized engine per farm), the water purification reverse osmosis
16 engines which each farmer must now install in multiple numbers on his farmland (and which are,
17 in fact, of greater horsepower than generally exists with regard to pump engines) exacerbates the
18 air pollution problem the CARB and Monterey Bay Unified etc. Board believed it necessary to
19 limit by means of their respective regulations and rules. In light of this already patent concern by
20 the California agencies charged with controlling air pollution and the significant impacts thereon
21 of diesel-fueled engines used in agricultural operations, it defies both common sense and belief
22 that the Regional Board overlooked this and found no significant impact to exist.
23
24

25 **VI. PETITIONERS ARE AGGRIEVED**

1 Petitioners are aggrieved by the Order as a stakeholder and/or as residents of the Central
2 Coast Region. As such, they have an interest in assuring that the actions taken by the Regional
3 Board to protect the environment and meet its mandate under the Water Code are done in a legal
4 fashion best designed to serve the interests of the residents of the Region and, of course, fulfill
5 the mandate of the Regional Board in a legal, ethical fashion.

6 **VII. A STAY OF THE ORDER SHOULD BE IMMEDIATELY ENTERED**

7 The Order, by its terms, takes effect immediately upon its enactment (March 15, 2012).
8 It sets various target dates by which certain required actions must be undertaken by the
9 owners/operators of irrigated agricultural lands, the earliest of which is October 2012 (a date
10 falling well within the statutory 270 days this Board has to review the present Petition (as well as
11 other Petitions filed challenging the Order). The dates for compliance as well as the points
12 raised above – particularly Johnston’s ex parte communications, and the patent failure by the
13 Board to comply with the requirements of Water Code §13241 – create a sufficient risk of
14 irreparable harm to Petitioners and others located in the Region.
15

16 **VIII. REQUESTED STATE BOARD ACTION**

17 Petitioners request the State Board to issue an order: (1) finding that Regional Board Order
18 No. R3-2012-0011 is invalid and enacted in excess of the authority of the Regional Board; (2)
19 that a proscribed ex parte communication by Johnston was made which requires invalidation of
20 the Order as enacted; and, (3) an award of attorneys fees as allowed by law be made to
21 Petitioners.
22

23 **IX. STATEMENT OF COPIES SENT TO THE REGIONAL BOARD**

24 Copies of this petition are being sent to the Regional Board at the following addresses:

25 (By personal delivery)

1 Roger Briggs, Executive Officer
Central Coast Regional Water Quality Control Board
2 895 Aerovista Place, Ste. 101
San Luis Obispo, California 93401

3 (By personal delivery)
4 Chairman
Central Coast Regional Water Quality Control Board
5 895 Aerovista Place, Ste. 101
San Luis Obispo, California 93401

7 (By e-mail)
8 Frances McChesney
Senior Staff Counsel
9 State Water Resources Control Board
10 1001 I Street, 22d Floor
Sacramento, California 94418
fmchesney@waterboards.ca.gov

11
12 **X. ISSUES RAISED BEFORE REGIONAL BOARD**

13 Petitioners certify that with the exception of the issue concerning Johnston's proscribed
14 ex parte communications each of these issues have been previously presented, both orally and in
15 writing, during the hearings leading up to the March 15, 2012 adoption of the Order. No
16 Regional Board meeting has occurred since the adoption of the Order at which the ex parte
17 communication could be presented to the Regional Board and no opportunity existed at the
18 March 15, 2012 meeting to raise the matter since the actions complained of occurred after the
19 period for any public comment had ended.
20

21 Respectfully submitted,

22
23 Date: April 13, 2012

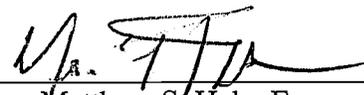
24 
Matthew S. Hale, Esq.,
Counsel for Petitioners

EXHIBIT 1

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

ORDER NO. R3-2012-0011

**CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES FROM IRRIGATED LANDS**

The California Regional Water Quality Control Board, Central Coast Region finds that:

1. The Central Coast Region has approximately 435,000 acres of irrigated land and approximately 3000 agricultural operations, which may be generating wastewater that falls into the category of discharges of waste from irrigated lands.
2. The Central Coast Region has more than 17,000 miles of surface waters (linear streams/rivers) and approximately 4000 square miles of groundwater basins that are, or may be, affected by discharges of waste from irrigated lands.
3. The State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (Regional Water Boards) are the principal state agencies with primary responsibility for the coordination and control of water quality pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act, codified in Water Code Division 7). The legislature, in the Porter-Cologne Act, directed the Water Board to exercise its full power and jurisdiction to protect the quality of the waters in the State from degradation, considering precipitation, topography, population, recreation, agriculture, industry, and economic development (Water Code § 13000).
4. On July 9, 2004, the Central Coast Regional Water Quality Control Board (Central Coast Water Board) adopted Resolution No. R3-2004-0117 establishing a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (2004 Agricultural Order). In the 2004 Agricultural Order, the Central Coast Water Board found that the discharge of waste from irrigated lands has impaired and polluted the waters of the State and of the United States within the Central Coast Region, has impaired the beneficial uses, and has caused nuisance. The 2004 Agricultural Order expired on July 9, 2009, and the Central Coast Water Board renewed it for a term of one year until July 10, 2010 (Order No. R3-2009-0050). On July 8, 2010, the Central Coast Water Board renewed the 2004 Agricultural Order again for an additional eight months until March 31, 2011 (Order No. R3-2010-0040).

The Central Coast Water Board did not have a quorum to take action to adopt a renewal of the 2004 Agricultural Order with modifications by the March 31, 2011 termination date. On March 29, 2011, the Executive Officer signed Executive Officer Order No. R3-2011-0208 to extend the 2004 Agricultural Order again for an additional six months, with a September 30, 2011 termination date. The Central Coast Water Board did not have a quorum to take action to adopt a renewal of the 2004 Agricultural Order with modifications by the September 30, 2011 termination date. On September 30, 2011, the Executive Officer issued Executive Officer Order No. R3-2011-0017 to extend the 2004 Agricultural Order again for an additional year, with a September 30, 2012 termination date. Executive Officer Order No. R3-2011-0017 also required dischargers to implement an updated Monitoring and Reporting Program No. R3-2011-0018. This *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands*, Order No. R3-2012-0011 (Order) renews and revises the 2004 Agricultural Order as set forth herein.

5. Since the issuance of the 2004 Agricultural Order, the Central Coast Water Board has compiled additional and substantial empirical data demonstrating 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, and impact aquatic habitat on or near irrigated agricultural operations. The most serious water quality degradation is caused by fertilizer and pesticide use, which results in runoff of chemicals from agricultural fields into surface waters and percolation into groundwater. Runoff and percolation include both irrigation water and stormwater. Every two years, the Water Board is required by Section 303(d) of the federal Clean Water Act to assess water quality data for California's waters to determine if they contain pollutants at levels that exceed protective water quality criteria and standards. This Order prioritizes conditions to control pollutant loading in areas where water quality impairment is documented in the 2010 Clean Water Act section 303(d) List of Impaired Waterbodies (hereafter referred to as 2010 List of Impaired Waterbodies). As new Clean Water Act section 303(d) Lists of Impaired Waterbodies are adopted, the Central Coast Water Board will consider such lists for inclusion in tiering criteria and conditions for this and subsequent Orders.
6. 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 practices¹. 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

¹ Carle, S.f., B.K. Esser, J.E. Moran, High-Resolution Simulation of Basin-Scale Nitrate Transport Considering Aquifer System Heterogeneity, *Geosphere*, June 2006, v.2, no. 4, pg. 195-209.

groundwater in agricultural areas². Hundreds of drinking water wells serving thousands of people throughout the region have nitrate levels exceeding the drinking water standard³. This presents a significant threat to human health as pollution gets substantially worse each year, and the actual numbers of polluted wells and people affected are unknown. Protecting public health and ensuring safe drinking water is among the highest priorities of this Order. This Order prioritizes conditions to control nitrate loading to groundwater and impacts to public water systems. In the case where further documentation indicates nitrate impacts to small water systems and/or private domestic wells, the Central Coast Water Board will consider proximity to impacted small water systems and private domestic wells for inclusion in tiering criteria.

7. Agricultural use rates of pesticides in the Central Coast Region and associated toxicity are among the highest in the State⁴. Agriculture-related toxicity studies conducted on the Central Coast since 1999 indicate that toxicity resulting from agricultural discharges of pesticides has severely impacted aquatic life in Central Coast streams^{5,6,7}. Some agricultural drains have shown toxicity nearly every time the drains are sampled. Twenty-two sites in the region, 13 of which are located in the lower Salinas/Tembladero watershed area, and the remainder in the lower Santa Maria area, have been toxic in 95% (215) of the 227 samples evaluated. This Order prioritizes conditions to address pesticides that are known sources of toxicity and sources of a number of impairments on the 2010 List of Impaired Waterbodies, specifically chlorpyrifos and diazinon. 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 will consider such pesticides for inclusion in tiering criteria.
8. Existing and potential water quality impairment from agricultural waste discharges takes on added significance and urgency, given the impacts on public health, limited sources of drinking water supplies and proximity of the region's agricultural lands to critical habitat for species of concern.

² Monterey County Flood Control and Water Conservation District, "Report of the Ad Hoc Salinas Valley Nitrate Advisory Committee." Zidar, Snow, and Mills. November 1990.

³ California Department of Public Health Data obtained using GeoTracker GAMA (Groundwater Ambient Monitoring and Assessment) online database, <http://geotracker.waterboards.ca.gov/gama/>.

⁴ Starner, K., J. White, F. Spurlock and K. Kelley. Pyrethroid Insecticides in California Surface Waters and Bed Sediments: Concentrations and Estimated Toxicities. California Department of Pesticide Regulation. 2006.

⁵ Anderson, B.S., J.W. Hunt, B.M. Phillips, P.A. Nicely, V. De Vlaming, V. Connor, N. Richard, R.S. Tjeerdema. Integrated assessment of the impacts of agricultural drainwater in the Salinas River (California, USA). *Environmental Pollution* 124, 523 - 532. 2003.

⁶ Anderson B.S., B.M. Phillips, J.W. Hunt, V. Connor, N. Richard, R.S. Tjeerdema. "Identifying primary stressors impacting macroinvertebrates in the Salinas River (California, USA): Relative effects of pesticides and suspended particles" *Environmental Pollution* 141(3):402-408. 2006a.

⁷ Anderson, B.S., B.M. Phillips, J.W. Hunt, N. Richard, V. Connor, K.R. Worcester, M.S. Adams, R.S. Tjeerdema. Evidence of pesticide impacts in the Santa Maria River Watershed (California, USA). *Environmental Toxicology and Chemistry*, 25(3):1160 - 1170. 2006b.

9. This Order regulates discharges of waste⁸ from irrigated lands by requiring individuals subject to this Order to comply with the terms and conditions set forth herein to ensure that such discharges do not cause or contribute to the exceedance of any Regional, State, or Federal numeric or narrative water quality standard (hereafter referred to as exceedance of water quality standards) in waters of the State and of the United States.

10. This Order requires compliance with water quality standards. Dischargers must implement, and where appropriate update or improve, management practices, which may include local or regional control or treatment practices and changes in farming practices to effectively control discharges, meet water quality standards and achieve compliance with this Order. Consistent with the Water Board's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy, 2004), dischargers comply by implementing and improving management practices and complying with the other conditions, including monitoring and reporting requirements. This Order requires the discharger to address impacts to water quality by evaluating the effectiveness of management practices (e.g., waste discharge treatment and control measures), and taking action to improve management practices to reduce discharges. If the discharger fails to address impacts to water quality by taking the actions required by this Order, including evaluating the effectiveness of their management practices and improving as needed, the discharger may then be subject to progressive enforcement and possible monetary liability. The Discharger has the opportunity to present their case to the Central Coast Water Board before any monetary liability may be assessed.

11. The Central Coast Water Board encourages Dischargers to coordinate the effective implementation of cooperative water quality improvement efforts, local or regional scale water quality protection and treatment strategies (such as managed aquifer recharge projects), and cooperative monitoring and reporting efforts to lower costs, maximize effectiveness, and achieve compliance with this Order. In cases where Dischargers are participating in effective local or regional treatment strategies, and individual on-farm discharges continue to cause exceedances of water quality standards in the short term, the Executive Officer will take into consideration such participation in the local or regional treatment strategy and progress made towards compliance with water quality standards in evaluating compliance with this Order. In cases where cooperative water quality improvement efforts, or local or regional treatment strategies, coordinated by a third-party group (e.g., watershed group, water quality coalition, or other similar cooperative effort) or by a group of Dischargers, necessitate alternative water quality monitoring or a longer time

⁸ This Order regulates discharge of "waste" as defined in Water Code section 13050 and "pollutants" as defined in the Clean Water Act. For simplicity, the term "waste" or "wastes" is used throughout. The term "waste" is very broad and includes "pollutants" as defined in the Clean Water Act.

schedule to achieve compliance than required by this Order, Dischargers may submit an alternative water quality monitoring and reporting plan or time schedule for approval by the Executive Officer. Groups of Dischargers and/or third party groups (e.g., a watershed group or water quality coalition) may submit to the Executive Officer for approval alternative water quality monitoring and reporting programs. An alternative monitoring and reporting program must include collection of data that will provide indicators of water quality improvement or pollution load reduction, and aggregate monitoring and reporting must be on a scale sufficient to track progress in small sub-basins and be sufficiently representative of conditions. Aggregate monitoring may apply to surface and groundwater. The Executive Officer will evaluate the alternative monitoring and reporting programs on a case-by-case basis considering the potential effectiveness of the aggregate or alternative monitoring (e.g., request to conduct aggregate monitoring for a certain timeframe to give new practices or treatment time to maximize effectiveness, and other factors such as whether the farms are currently significantly contributing to impaired surface water or ground water with drinking water wells, or whether farms are in compliance with other provisions such as enrollment, or submittal of annual compliance information). Dischargers who participate in an alternative monitoring and reporting program maintain individual responsibility to comply with this Order's conditions.

Dischargers may continue to implement alternative treatment or monitoring programs approved by the Executive Officer as long as they demonstrate continuous improvement and sufficient progress towards water quality improvement based upon measurable indicators of pollutant load reduction. Dischargers may seek review of Executive Officer decisions by the Water Board.

12. The Central Coast Water Board encourages Dischargers to coordinate the implementation of management practices with other Dischargers discharging to common tile drains, including efforts to develop regional salt and nutrient management plans. The Executive Officer may require additional monitoring and reporting for discharges to tile drains as necessary to evaluate compliance with this Order.
13. The Central Coast Water Board encourages Dischargers to participate in regional or local groundwater monitoring efforts conducted as part of existing or anticipated groundwater monitoring programs, including efforts related to regional and local salt and nutrient management plans, integrated regional water management (IRWM) plans, or the State Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program.
14. Dischargers have the option of complying with surface receiving water quality monitoring conditions identified in MRP Order No. R3-2012-0011, either individually or through a cooperative monitoring program. The Central Coast Water Board encourages Dischargers to participate in a cooperative monitoring program to

comply with surface receiving water quality monitoring conditions. In the development of any cooperative monitoring program fee schedule, the Central Coast Water Board encourages Dischargers to scale the assessment of fees based on relative level of waste discharge and threat to water quality.

15. The Central Coast Water Board will evaluate various types of information to determine compliance with this Order such as, a) management practice implementation and effectiveness, b) treatment or control measures, c) individual discharge monitoring results, d) receiving water monitoring results, and e) related reporting.
16. Many owners and operators of irrigated lands within the Central Coast Region have taken actions to protect water quality. In compliance with the 2004 Agricultural Order, most owners and operators enrolled in the 2004 Agricultural Order, implemented the Cooperative Monitoring Program (CMP), participated in farm water quality education, developed farm water quality management plans and implemented management practices as required in the 2004 Agricultural Order. The 2004 Agricultural Order did not include conditions that allowed for determining individual compliance with water quality standards or the level of effectiveness of actions taken to protect water quality, such as individual discharge monitoring or evaluation of water quality improvements. This Order includes new or revised conditions to allow for such evaluations.
17. Water Code section 13260(a) requires that any person discharging waste or proposing to discharge waste that could affect the quality of the waters of the State, other than into a community sewer system, shall file with the appropriate Regional Board a report of waste discharge (ROWD) containing such information and data as may be required by the Central Coast Water Board, unless the Central Coast Water Board waives such requirement.
18. Water Code section 13263 requires the Central Coast Water Board to prescribe waste discharge requirements (WDRs), or waive WDRs, for the discharge. The WDRs must implement relevant water quality control plans and the Water Code.
19. Water Code section 13269(a) provides that the Central Coast Water Board may waive the requirement to obtain WDRs for a specific discharge or specific type of discharge, if the Central Coast Water Board determines that the waiver is consistent with any applicable water quality control plan and such waiver is in the public interest, provided that any such waiver of WDRs is conditional, includes monitoring conditions 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, unless waived, does not exceed five years in duration, and may be terminated at any time by the Central Coast Water Board.

20. As authorized by Water Code section 13269, this Order conditionally waives the requirement to obtain WDRs for Dischargers who comply with the terms of this Order. See Attachment A to this Order for additional findings related to legal and regulatory considerations, and rationale for this Order.
21. Pursuant to Water Code section 13267, the Executive Officer may require Dischargers to locate (inventory) and conduct monitoring of private domestic wells in or near agricultural areas with high nitrate in groundwater and submit technical reports evaluating the monitoring results. In addition, in compliance with Water Code section 13304, the Central Coast Water Board may require Dischargers to provide alternative water supplies or replacement water service, including wellhead treatment, to affected public water suppliers or private domestic well owners.

SCOPE OF ORDER NO. R3-2012-0011

Irrigated Lands and Agricultural Discharges Regulated Under this Order

22. This Order regulates (1) discharges of waste from irrigated lands, including, but not limited to, land planted to row, vineyard, field and tree crops where water is applied for producing commercial crops; (2) 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; and (3) discharges of waste from lands that are planted to commercial crops that are not yet marketable, such as vineyards and tree crops.
23. Discharges from irrigated lands regulated by this Order include discharges of waste to surface water and groundwater, such as irrigation return flows, tailwater, drainage water, subsurface drainage generated by irrigating crop land or by installing and operating drainage systems to lower the water table below irrigated lands (tile drains), stormwater runoff flowing from irrigated lands, stormwater runoff conveyed in channels or canals resulting from the discharge from irrigated lands, runoff resulting from frost control, and/or operational spills. These discharges can contain wastes that could affect the quality of waters of the State and impair beneficial uses.

Dischargers Regulated Under this Order

24. This Order regulates both landowners and operators of irrigated lands on or from which there are discharges of waste that could affect the quality of any surface water or groundwater (Dischargers). Dischargers are responsible for complying with the conditions of this Order. The Central Coast Water Board will hold both the landowner and the operator liable for noncompliance with this Order.

25. The Central Coast Water Board recognizes that due to different types of operations and/or locations, discharges of waste from irrigated lands may have the potential for different levels of impacts on waters of the state or of the United States. This Order establishes three tiers of regulation to take into account the variation, including different regulatory conditions for the three tiers.
26. Dischargers who have not enrolled to comply with a previous order must submit to the Central Coast Water Board a completed electronic Notice of Intent (NOI) to comply with the conditions of this Order to comply with the Water Code.
27. Dischargers who have submitted a completed electronic NOI to the Central Coast Water Board to comply with a previous order must update their NOI to reflect current operation and farm/ranch information.
28. Landowners and operators of irrigated lands who obtain a pesticide use permit from a local County Agricultural Commissioner and that have a discharge of waste that could affect surface water or groundwater, must submit to the Central Coast Water Board, a completed electronic NOI to comply with the conditions of this Order to comply with the Water Code.
29. The NOI serves as a report of waste discharge (ROWD) for the purposes of this Order.
30. The Central Coast Water Board recognizes that certain limited resource farmers (as defined by the U.S. Dept. of Agriculture) may have difficulty achieving compliance with this Order. The Central Coast Water Board will prioritize assistance for these farmers, including but not limited to technical assistance, grant opportunities, and necessary flexibility to achieve compliance with this Order (e.g., adjusted monitoring, reporting, or time schedules).

Agricultural Discharges Not Covered Under this Order and Who Must Apply for Individual Waste Discharge Requirements

31. This Order does not waive WDRs for commercial nurseries, nursery stock production and greenhouse operations that have point-source type discharges, and fully contained greenhouse operations (those that have no groundwater discharge due to impervious floors). These operations must eliminate all such discharges of wastes or submit a ROWD to apply for individual WDRs as set forth in Water Code section 13260.

PUBLIC PARTICIPATION PROCESS

32. The Central Coast Water Board notified interested persons that the Central Coast Water Board will consider the adoption of this Order, which conditionally waives individual WDRs and establishes conditions for the control of discharges of waste from irrigated lands to waters of the State, and provided several opportunities for public input.
33. In December 2008, the Central Coast Water Board invited members of the public to participate in development of this Order and provide recommendations to Central Coast Water Board staff. In particular, the Central Coast Water Board requested the assistance of an agricultural advisory panel in developing appropriate milestones, timetables, and verification monitoring programs to resolve water quality problems and achieve compliance with the Basin Plan. Additionally, in early 2009, the Central Coast Water Board notified all water purveyors, water districts and municipalities that staff was developing recommendations for this Order.
34. In December 2009, the Central Coast Water Board encouraged any interested person who wanted to present alternative recommendations to this Order to provide those recommendations in writing by April 1, 2010.
35. On February 1, 2010, the Central Coast Water Board publicly released a preliminary report and preliminary draft order for the regulation of discharges from irrigated lands and accepted comments on the preliminary draft order through June 4, 2010.
36. The Central Coast Water Board held two public workshops (May 12, 2010, and July 8, 2010) to discuss the preliminary draft order, public comments, and alternative recommendations.
37. The Central Coast Water Board released a Draft Agricultural Order and staff report on November 19, 2010, for public review and comment, and held an additional public workshop on February 3, 2011. The Central Coast Water Board released further revised versions of the Draft Agricultural Order in March, July, and August 2011 and held an additional public workshop on February 1, 2012.
38. Between November 2009 and February 2012, Central Coast Water Board staff attended more than 60 meetings and conferences to describe the process for developing the Draft Agricultural Order, discuss options, and hear public input regarding the Draft Agricultural Order. These events included numerous stakeholders representing the agricultural industry and its technical assistance providers, environmental and environmental justice organizations, local and state government agencies and other members of the public.

39. Interested persons were notified that the Central Coast Water Board will consider adoption of an Order, which conditionally waives WDRs for discharges of waste from irrigated lands, as described in this Order, and were provided an opportunity for a public hearing and an opportunity to submit written comments.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

40. For purposes of adoption of this Order, the Central Coast Water Board is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Pub. Res. Code §§ 21100 et seq.).
41. In 2004, the Central Coast Water Board adopted the 2004 Agricultural Order and a Negative Declaration prepared in compliance with CEQA. CEQA Guidelines state that no subsequent environmental impact report (SEIR) shall be prepared when an EIR has been certified or negative declaration adopted for a project unless the lead agency determines based on substantial evidence in light of the whole record, one or more of the following:

(1) if substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or,

(2) if substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental impacts or a substantial increase in the severity of previously identified significant effects; or

(3) if new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, becomes available.

(Cal. Code Regs., tit. 14, § 15162(a).)

This regulation applies if there is a modification of a previous project. In this case, the Central Coast Water Board is proposing to renew the 2004 Agricultural Order, which is the previous project, with clarifications and new conditions. To assist in determining whether an SEIR would be necessary, the Central Coast Water Board staff held a CEQA scoping meeting on August 16, 2010, to receive input from interested persons and public agencies on potentially significant environmental effects of the proposed project. Staff also accepted written comments regarding

scoping up until August 27, 2010, in order to allow for comments from those who were unable to attend the meeting and/or for those who wished to submit additional comments. Members of the public and representatives of public agencies provided comments regarding their views on significant environmental effects associated with the adoption of a renewed Agricultural Order. As described in Findings 30 - 37 and prior to the scoping meeting in August 2010, significant public participation activities had occurred.

In preparing the Draft SEIR, Central Coast Water Board staff reviewed the 2004 Negative Declaration, including the Initial Study (Environmental Checklist), considered the comments received during the public participation process with respect to renewal of the 2004 Agricultural Order, including evidence in the record, written and oral comments, proposed alternatives, and information provided at and following the August 16, 2010 scoping meeting, and comments received on the Draft SEIR. Review of this information did not result in identification of any new environmental effects that had not already been evaluated in the 2004 Negative Declaration. Staff identified two areas included on the Environmental Checklist where there was a potential for an increase in the severity of environmental effects previously identified. These areas are (1) the potential for more severe impacts on agricultural resources due to the potential for an increase in the use of vegetated buffer strips and economic impacts due to new requirements that could take some land out of direct agricultural use and (2) the potential for more severe impacts on biological resources due to the potential for a reduction in water flows in surface waters.

The Central Coast Water Board issued a Notice of Availability on October 25, 2010, and provided the public with 45 days to submit written comments on the Draft SEIR. The Water Board received 12 written comment letters. Responses to the comments are in Section 7 of the Final SEIR. In response to comments, the Central Coast Water Board staff revised the Draft SEIR and prepared a draft Final SEIR for the Central Coast Water Board's certification. The 2004 Negative Declaration and the Final SEIR constitute the environmental analysis under CEQA for this Order.

42. With respect to Agricultural Resources, the Final SEIR concludes that adoption of the proposed alternative could result in some economic or social changes but that there was insufficient evidence to conclude that the economic changes would result in adverse physical changes to the environment. Commenters speculated that the economic impacts would be so large as to result in large scale end to agriculture and that land would be sold for other uses that would result in impacts on the environment. No significant information was provided to justify that concern. As described in Section 2.4 of this Final SEIR, the draft 2012 Agricultural Order would impose additional conditions on approximately 100 to 300 of the estimated 3000 owners or operators currently enrolled in the 2004 Agricultural Order. CEQA states that economic or social effects of a project shall not be treated as significant effects on the environment. (Pub.

Res. Code § 21083.) The Final SEIR concludes that due to some new conditions, particularly the requirement that some dischargers may be required to implement vegetated buffer strips, could result in loss of land for agricultural production since the buffer strips would generally not produce crops and some land could be converted to other uses. This impact was found to be less than significant and that mitigation could reduce impacts further. The Central Coast Water Board may not generally specify the manner of compliance and therefore, dischargers may choose among many ways to comply with the requirement to control discharges of waste to waters of the state. Even if all dischargers who could be subject to the condition to use vegetated buffers or some other method to control discharges in the draft 2012 Agricultural Order (Tier 3 dischargers) chose to use vegetated buffers or converted to other uses, the total acreage is quite small compared to the total amount of acreage used for farming and was, therefore, found to be less than significant. In addition, since the land would be used as a vegetated buffer to comply with the Order, this would result in beneficial impacts on the environment, not adverse impacts.

With respect to Biological Resources, the Final SEIR concludes that wide scale water conservation could result in lower flows into surface water resulting in impacts on aquatic life. The Central Coast Water Board may not specify the manner of compliance so it has insufficient information to evaluate the extent to which dischargers would choose to use water conservation to comply and to evaluate potential physical changes to the environment that could result. Reduction in toxic runoff may offset impacts due to the reduced flows that could occur. In addition, reduction in water use could result in increased groundwater levels that would also result in more clean water to surface water.

Based on this information, the Final SEIR concludes that the environmental effects associated with the draft 2012 Agricultural Order may be significant with respect to biological resources. However, given the uncertainty associated with evaluating the available information, it is possible that the effects may turn out to be less than significant. In Resolution R3-2012-0012, the Central Coast Water Board has made findings consistent with the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15091) and a statement of overriding considerations (Cal. Code Regs., tit. 14, § 15093) with respect to biological resources.

ADDITIONAL FINDINGS

43. Attachment A to this Order, incorporated herein, includes additional findings that further describe a) the Water Board's legal and regulatory authority, b) the rationale for this Order, c) a description of the environmental and agricultural resources in the Central Coast Region, and d) impacts to water quality from agricultural discharges. Attachment A also identifies applicable plans and policies adopted by the State Water Board and the Central Coast Water Board that contain regulatory condition

that apply to the discharge of waste from irrigated lands. Attachment A also includes definitions of terms for purposes of this Order.

IT IS HEREBY ORDERED that:

1. Pursuant to Water Code sections 13260, 13263, 13267, and 13269, Dischargers must comply with the terms and conditions of this Order to meet the provisions contained in Water Code Division 7 and regulations and plans and policies adopted there under.
2. This Order shall not create a vested right to discharge, and all discharges of waste are a privilege, not a right, as provided for in Water Code section 13263(g).
3. Dischargers must not discharge any waste not specifically regulated by this Order except in compliance with the Water Code.
4. Pursuant to Water Code section 13269, the Central Coast Water Board waives the requirement that Dischargers obtain WDRs pursuant to Water Code section 13263(a) for discharges of waste from irrigated lands, if the Discharger enrolls in and complies with this Order, including Attachments and Monitoring and Reporting Program (MRP) Order No. R3-2012-0011.
5. Pursuant to Water Code section 13269, this action waiving the issuance of WDRs for certain specific types of discharges: 1) is conditional; 2) may be terminated by the Central Coast Water Board at any time; 3) may be superseded if the State Water Board or Central Coast Water Board adopts specific WDRs or general WDRs for this type of discharge or any individual discharger; 4) does not permit any illegal activity; 5) does not preclude the need for permits which may be required by other local or governmental agencies; 6) does not preclude the Central Coast Water Board from requiring WDRs for any individual discharger or from administering enforcement remedies (including civil liability) pursuant to the Water Code; and 7) includes conditions for the performance of individual, group, and watershed-based monitoring in the form of monitoring requirements 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.
6. Dischargers or groups of Dischargers seeking regulatory requirements tailored to their specific operation, farm/ranch, geographic area, or commodity may submit an ROWD to obtain individual or general orders for a specific discharge or type of discharge (e.g., commodity-specific general order). This Order remains applicable until such individual or general orders are adopted by the Central Coast Water Board.

7. The Executive Officer may propose, and the Water Board may adopt, individual WDRs for any Discharger at any time.
8. The Central Coast Water Board or the Executive Officer may, at any time, terminate applicability of this Order with respect to an individual Discharger upon written notice to the Discharger.
9. Dischargers are defined in this Order as both the landowner and operator of irrigated cropland, and both must comply with this Order.
10. Dischargers may comply with this Order by participating in third-party groups (e.g., watershed group, or water quality coalition, or other similar cooperative effort) approved by the Executive Officer or Central Coast Water Board. In this case, the third-party group will assist individual growers in achieving compliance with this Order, including implementing water quality improvement projects and required monitoring and reporting programs as described in MRP Order No. R3-2012-0011-01, MRP Order No. R3-2012-0011-02, and MRP Order No. R3-2012-0011-03, or alternative monitoring and reporting programs as provided in Condition 11 below. Consistent with the Water Board's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy, 2004), the ineffectiveness of a third-party group through which a Discharger participates in nonpoint source control efforts cannot be used as an excuse for lack of individual discharger compliance. Individual Dischargers continue to be responsible for complying with this Order.
11. Dischargers may form third party groups to develop and implement alternative water quality management practices (i.e., group projects) or cooperative monitoring and reporting programs to comply with this Order. At the discretion of the Executive Officer, Dischargers that are a participant in a third party group that implements Executive Officer-approved water quality improvement projects or Executive Officer-approved alternative monitoring and reporting programs may be moved to a lower Tier (e.g., Tier 3 to Tier 2, Tier 2 to Tier 1) and/or provided alternative project-specific timelines, and milestones.

To be subject to Tier changes or alternative timelines, Projects will be evaluated for, among other elements:

- Project Description. Description must include identification of participants, methods, and time schedule for implementation.
- Purpose. Proposal must state desired outcomes or goals of the project (e.g., pollutants to be addressed, amount of pollution load to be reduced, water quality improvement expected).
- Scale. Solutions must be scaled to address impairment.

- Chance of Success. Projects must demonstrate a reasonable chance of eliminating toxicity within the permit term (five years) or reducing discharge of nutrients to surface and groundwater.
- Long term solutions and contingencies. Proposals must address what new actions will be taken if the project does not meet goals and how the project will be sustained through time.
- Accountability. Proposals must set milestones that indicate progress towards goals stated as above in "purpose."
- Monitoring and reporting. Description of monitoring and measuring methods, and information to be provided to the Water Board. Monitoring points must be representative but may not always be at the edge-of-farm so long as monitoring results demonstrate water quality improvement and the efficacy of a project. In addition, monitoring must 1) characterize and be representative of discharge to receiving water, 2) demonstrate project effectiveness, 3) and verify progress towards water quality improvement and pollutant load reduction,

Project proposals will be evaluated by a Technical Advisory Committee (TAC) comprised of: Two researchers or academics skilled in agricultural practices and/or water quality, one farm advisor (e.g., from Natural Resources Conservation Service or local Resource Conservation Districts), one grower representative, one environmental representative, one environmental justice or environmental health representative, and one Regional Board staff. The TAC must have a minimum of five members to evaluate project proposals and make recommendations to the Executive Officer. The Executive Officer has discretion to approve any project after receiving project evaluation results and recommendations from the committee. If the Executive Officer denies approval, the third party group may seek review by the Regional Board. As stated in the NPS Policy, management practice implementation is not a substitute for compliance with water quality requirements. If the project is not effective in achieving water quality standards, additional management practices by individual Dischargers or the third party group will be necessary.

12. Dischargers who are subject to this Order shall implement management practices, as necessary, to improve and protect water quality and to achieve compliance with applicable water quality standards.

Part A. Tiers

13. Dischargers are classified into a tier based upon criteria that define the risk to water quality and the level of waste discharge. The Central Coast Water Board may update the criteria, as necessary.
14. Dischargers must determine the tier that applies to the individual farm(s)/ranch(es) at their operation or lands when they enroll or update their Notice of Intent (NOI), via electronic submittal. See Part D. Submittal of Technical Reports.
15. **Tier 1** – Applies to all Dischargers whose individual farm/ranch meets all of the criteria described in **(1a)**, **(1b)**, and **(1c)**, or whose individual farm/ranch is certified in a sustainable agriculture program identified in **(1d)** that requires and verifies effective implementation of management practices that protect water quality:
 - 1a. Discharger does not use chlorpyrifos or diazinon at the farm/ranch, which are documented to cause toxicity in surface waters in the Central Coast Region;
 - 1b. Farm/ranch is located more than 1000 feet from a surface waterbody listed for toxicity, pesticides, nutrients, turbidity or sediment on the 2010 List of Impaired Waterbodies⁹ (Table 1);
 - 1c. If the Discharger grows crop types with high potential to discharge nitrogen to groundwater (as defined in Attachment A) at the farm/ranch, and the farm/ranch total irrigated acreage is *less than* 50 acres, and is *not* within 1000 feet of a well that is part of a public water system (as defined by the California Health and Safety Code, section 116275) that exceeds the maximum contaminant level (MCL) for nitrate, nitrite, or nitrate + nitrite¹⁰;
 - 1d. Sustainability in Practice (SIP, certified by the Central Coast Vineyard Team) or other certified programs approved by the Executive Officer.

⁹ The 2010 List of Impaired Waterbodies is available on the Water Board's Impaired Water Bodies website at http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml.

¹⁰ California Department of Health Services (CDPH) has determined that public water system well location records are confidential and exempt from disclosure to the public. Until such time that public water system well location records become available to the public, the Central Coast Water Board will identify Dischargers who are within 1000 feet of a public water system well that exceeds the maximum contaminant level (MCL) for nitrate, nitrite, or nitrate + nitrite. Dischargers should evaluate their tier for the purposes of this Order based on all information available. In the case where a Discharger should be placed into a different tier based on proximity to a public water system well, the Central Coast Water Board will provide appropriate notice to the Discharger. Approximate locations for public water system wells are available on the Water Board's GeoTracker GAMA website at <http://geotracker.waterboards.ca.gov/gama/>.

16. **Tier 2** – Applies to all Dischargers whose individual farm/ranch does not meet the Tier 1 or Tier 3 criteria. In general, a Tier 2 Discharger's farm/ranch meets at least one of the characteristics described in **(2a), (2b), or (2c)**:

2a. Discharger applies chlorpyrifos or diazinon at the farm/ranch, which are documented to cause toxicity in surface waters in the Central Coast Region;

2b. Farm/ranch is located within 1000 feet of a surface waterbody listed for toxicity, pesticides, nutrients, turbidity or sediment on the 2010 List of Impaired Waterbodies⁹ (see Table 1);

2c. Discharger grows crop types with high potential to discharge nitrogen to groundwater (as defined in Attachment A) at the farm/ranch, and the farm/ranch total irrigated acreage is greater or equal to 50 acres and *less than* 500 acres, or the farm/ranch is *within* 1000 feet of a well that is part of a public water system (as defined by the California Health and Safety Code, section 116275) that exceeds the maximum contaminant level (MCL) for nitrate, nitrite, or nitrate + nitrite¹⁰;

17. **Tier 3** – Applies to all Dischargers whose individual farm/ranch meets one of the following sets of criteria **(3a) or (3b)**:

3a. Discharger grows crop types with high potential to discharge nitrogen to groundwater (as defined in Attachment A) at the farm/ranch, and farm/ranch total irrigated acreage is *greater than or equal* to 500 acres;

3b. Discharger applies chlorpyrifos or diazinon at the farm/ranch, and the farm/ranch discharges irrigation or stormwater runoff to a waterbody listed for toxicity or pesticides on the 2010 List of Impaired Waterbodies⁹ (Table 1);

18. Dischargers may submit a request to the Executive Officer to approve transfer to a lower tier. The Discharger 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 to characterize the waste discharge and resulting effect on water quality. Dischargers remain in the tier determined by the criteria above and must meet all conditions for that tier until the Executive Officer approves the request to transfer to a lower tier. At a minimum, information provided by Dischargers requesting transfer to a lower tier must include the following:

a. Farm/ranch maps(s) identifying discharge points and any water quality sampling locations;

- b. Schematic showing the flow of irrigation and stormwater runoff, including where it leaves the farm/ranch and where the discharge enters receiving water;
 - c. Description of the volume of discharges and when the discharge is present;
 - d. Description of type of chemicals applied (e.g., pesticide and fertilizer use);
 - e. Description of estimated pollutant loading to groundwater;
 - f. Description and results of any individual discharge water quality sampling information available (e.g., irrigation runoff and stormwater sampling, lysimeter sampling);
19. The Executive Officer may elevate Tier 1 or Tier 2 Dischargers to a higher tier if the Discharger poses a higher threat to water quality based on information submitted as part of the NOI, MRP, or information observed upon inspection of a ranch/farm, or any other appropriate evidence that indicates the ranch/farm meets the criteria for a higher tier.
20. The Executive Officer may require Dischargers to enroll irrigated land with similar characteristics (e.g., same landowner or operator), and proximal, adjacent, or contiguous location, as a single operation or farm/ranch.
21. Unless otherwise specified, the conditions of this Order apply to all Dischargers, including Tier 1, Tier 2, and Tier 3.

Part B. General Conditions and Provisions for All Dischargers - Tier 1, Tier 2, and Tier 3

Water Quality Standards-

22. Dischargers must comply with applicable water quality standards, as defined in Attachment A, protect the beneficial uses of waters of the State and prevent nuisance as defined in Water Code section 13050.
23. Dischargers must comply with applicable provisions of the Central Coast Region Water Quality Control Plan (Basin Plan) and all other applicable water quality control plans as identified in Attachment A.
24. Dischargers must comply with applicable Total Maximum Daily Loads (TMDLs), including any plan of implementation for the TMDL, commencing with the effective date or other date for compliance stated in the TMDL. A list of TMDLs adopted by the Central Coast Water Board is available on the Central Coast Water Board website at:
http://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/index.shtml.

25. Dischargers shall not discharge any waste not specifically regulated by the Order described herein, unless the Discharger complies with Water Code section 13260(a) by submitting a ROWD and the Central Coast Water Board either issues WDRs pursuant to Water Code section 13263 or an individual waiver pursuant to Water Code section 13269, or the conditions specified in Water Code section 13264(a) must be met by the Discharger. Waste specifically qualifying for conditional discharge under this Waiver includes earthen materials, including soil, silt, sand clay, rock; inorganic materials (such as metals, salts boron, selenium, potassium, nitrogen, etc.); organic materials; and pesticides that may enter or threaten to enter into waters of the state. Examples of wastes not qualifying for conditional discharge under this Order include hazardous waste and human waste.
26. Dischargers shall not discharge any waste at a location or in a manner different from that described in the NOI.
27. Dischargers shall not discharge chemicals such as fertilizers, fumigants or pesticides down a groundwater well casing.
28. Dischargers shall not discharge chemicals used to control wildlife (such as bait traps or poison) directly into surface waters, or place the chemicals in a location where they may be discharged to surface waters.
29. Dischargers shall not discharge agricultural rubbish, refuse, irrigation tubing or tape, or other solid wastes into surface waters, or place such materials where they may contact or may eventually be discharged to surface waters.
30. This Order does not authorize persons to discharge pollutants from point sources to waters of the United States, including wetlands, where the Discharger is required to obtain an NPDES permit under Clean Water Act section 402 (NPDES), or a dredge and fill permit under Clean Water Act section 404 (dredge and fill), except as authorized by an NPDES permit or section 404 permit. An area is considered a wetland, subject to Clean Water Act section 404, if it meets the United States Army Corps of Engineers' definition as described in the Code of Federal Regulations and associated wetland delineation procedures, or relevant Water Board definitions.

Waste Discharge Control-

31. **By October 1, 2012**, Dischargers that apply fertilizers, pesticides, fumigants or other chemicals through an irrigation system must have functional and properly maintained back flow prevention devices installed at the well or pump to prevent pollution of groundwater or surface water, consistent with any applicable DPR requirements or local ordinances. 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.

32. **By October 1, 2015**, Dischargers must properly destroy all abandoned groundwater wells, exploration holes or test holes, as defined by Department of Water Resources (DWR) Bulletin 74-81 and revised in 1988, in such a manner that they will not produce water or act as a conduit for mixing or otherwise transfer groundwater or waste constituents between permeable zones or aquifers. Proper well abandonment must be consistent with any applicable DWR requirements or local ordinances.
33. Dischargers who utilize containment structures (such as retention ponds or reservoirs) to achieve treatment or control of the discharge of wastes must manage, construct, or maintain such containment structures to avoid percolation of waste to groundwater that causes or contributes to exceedances of water quality standards, and to minimize surface water overflows that have the potential to impair water quality.
34. Dischargers must implement proper handling, storage, disposal and management of pesticides, fertilizer, and other chemicals to prevent or control the discharge of waste to waters of the State that causes or contributes to exceedances of water quality standards.
35. Upon request, Dischargers must submit information regarding compliance with any Department of Pesticide Regulation (DPR) adopted or approved surface water or groundwater protection requirements.
36. Dischargers must implement water quality protective management practices (e.g., source control or treatment) to prevent erosion, reduce stormwater runoff quantity and velocity, and hold fine particles in place.
37. Dischargers must minimize the presence of bare soil vulnerable to erosion and soil runoff to surface waters and implement erosion control, sediment, and stormwater management practices in non-cropped areas, such as unpaved roads and other heavy use areas.
38. Dischargers must comply with any applicable stormwater permit.
39. Dischargers must a) maintain existing, naturally occurring, riparian vegetative cover (such as trees, shrubs, and grasses) in aquatic habitat areas as necessary to minimize the discharge of waste; and b) maintain riparian areas for effective streambank stabilization and erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, and wildlife support to minimize the discharge of waste;

40. In the case where disturbance of aquatic habitat is necessary for the purposes of water quality improvement, restoration activities, or other permitted activities, Dischargers must implement appropriate and practicable measures to avoid, minimize, and mitigate erosion and discharges of waste, including impacts to aquatic habitat.
41. Upon request, where required by California Fish and Game Code, Dischargers must submit proof of an approved Streambed Alteration Agreement from the California Department of Fish and Game (CDFG) for any work conducted within the bed, bank or channel of a lake or stream, including riparian areas, that has the potential to result in erosion and discharges of waste to waters of the State.
42. Upon request, where required by California Forest Practice Rules, Dischargers must submit proof of California Department of Forestry and Fire Protection authorization, and enrollment in the Central Coast Water Board's General Conditional Waiver of WDRs – Timber Harvest Activities in the Central Coast Region, for any commercial harvesting of timber that has the potential to result in erosion and discharges of waste to waters of the State.
43. Upon request, where required by Clean Water Act Section 404, Dischargers must submit proof of a dredge and fill permit from the United States Army Corps of Engineers (USACOE) for any work that has the potential to discharge wastes considered "fill," such as sediment, to wetlands.
44. **By October 1, 2012**, Dischargers must develop a farm water quality management plan (Farm Plan), or update the Farm Plan as necessary, and implement it to achieve compliance with this Order. Farm Plans must be kept current, kept on the farm, and a current copy must be made available to Central Coast Water Board staff, upon request. At a minimum, Farm Plans must include:
 - a. Copy of this Order and a copy of the Notice of Intent (NOI) submitted to the Central Coast Water Board for reference by operating personnel and inspection by Central Coast Water Board staff;
 - b. Date the Farm Plan was last updated;
 - c. Farm/ranch maps(s) identifying irrigation and stormwater runoff discharge locations where irrigation and stormwater runoff leaves or may leave the farm/ranch and where the discharge enters or may enter receiving water;
 - d. Description of the typical volume of discharges and when the discharge is typically present;
 - e. Description of type of chemicals applied (e.g., pesticide and fertilizer use);
 - f. Description and time schedule for any farm water quality management practices, treatment and/or control measures implemented to comply with this Order. This includes, but is not limited to, management practices

related to irrigation efficiency and management, pesticide management, nutrient management, salinity management, sediment and erosion control (including stormwater management), and aquatic habitat protection to achieve compliance with this Order. In addition, Farm Plans must describe tile drain discharges and the management measures Dischargers have implemented or will implement to minimize impacts to water quality;

- g. Description and results of methods used to verify practice effectiveness and compliance with this Order (e.g., water quality sampling, discharge characterization, reductions in pollutant loading);

- 45. Dischargers must obtain appropriate farm water quality education and technical assistance necessary to achieve compliance with this Order. Education should focus on meeting water quality standards by identifying on-farm water quality problems, implementing pollution prevention strategies and implementing practices designed to protect water quality and resolve water quality problems to achieve compliance with this Order.

Other Provisions and Conditions-

- 46. Pursuant to Water Code section 13267(c), the Central Coast Water Board staff or its authorized representatives may investigate the property of persons subject to this Order to ascertain whether the purposes of the Porter-Cologne Act are being met and whether the Discharger is complying with the conditions of this Order. The inspection shall be made with the consent of the owner or possessor of the facilities, or if consent is withheld, with a duly issued warrant pursuant to the procedure set forth in Title 13 Code of Civil Procedure Part 3 (commencing with Section 1822.50). However, in the event of an emergency affecting the public health or safety, an inspection may be performed without consent or the issuance of a warrant.
- 47. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code Sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. Sections 1531 to 1544). If a "take" will result from any act authorized under this Order, the Dischargers must obtain authorization for an incidental take prior to taking action. Dischargers must be responsible for meeting all requirements of the applicable Endangered Species Act for the discharge authorized by this Order.
- 48. Dischargers must pay a fee to the State Water Resources Control Board in compliance with the fee schedule contained in Title 23 California Code of Regulations.

49. Dischargers must pay any relevant monitoring fees (e.g., Cooperative Monitoring Program) necessary to comply with monitoring and reporting conditions of this Order or comply with monitoring and reporting requirements individually.

Part C. Monitoring Conditions for All Dischargers- Tier 1, Tier 2, and Tier 3

50. Dischargers must comply with MRP Order No. R3-2012-0011, as ordered by the Executive Officer or alternative monitoring and reporting programs approved by Executive Officer as set forth in Finding 11 and Condition 11.

Monitoring and reporting conditions are different for each tier, based on level of waste discharge and affect on water quality. Attached to this Order are three specific MRPs, one for each tier:

- a. Tier 1 Dischargers must comply with monitoring and reporting conditions specified in MRP Order No. R3-2012-0011-01;
 - b. Tier 2 Dischargers must comply with monitoring and reporting conditions specified in MRP Order No. R3-2012-0011-02;
 - c. Tier 3 Dischargers must comply with monitoring and reporting conditions specified in MRP Order No. R3-2012-0011-03;
51. Tier 1, Tier 2, and Tier 3 Dischargers must conduct groundwater monitoring and reporting in compliance with MRP Order No. R3-2012-0011-01, MRP Order No. R3-2012-0011-02, and MRP Order No. 2012-0011-03, or alternative monitoring and reporting programs approved by Executive Officer as set forth in Finding 11 and Condition 11, so that the Central Coast Water Board can evaluate groundwater conditions in agricultural areas, identify areas at greatest risk for waste discharge and nitrogen loading and exceedance of drinking water standards, and identify priority areas for nutrient management.
52. Tier 1, Tier 2, and Tier 3 Dischargers must conduct surface receiving water quality monitoring and reporting in compliance with MRP Order No. R3-2012-0011-01, MRP Order No. R3-2012-0011-02, and MRP Order No. 2012-0011-03, either individually or through a cooperative monitoring program, or alternative monitoring and reporting programs approved by Executive Officer as set forth in Finding 11 and Condition 11.
53. For Dischargers who choose to participate in a cooperative monitoring program, failure to pay cooperative monitoring program fees voids a selection or notification of the option to participate in a cooperative monitoring and hence requires individual monitoring report submittal per MRP Order No. R3-2012-0011, MRP Order No. R3-2012-0011-02, and MRP Order No. 2012-0011-03.

Part D. Submittal of Technical Reports for All Dischargers- Tier 1, Tier 2, Tier 3

Notice of Intent (NOI) to Enroll under the Order for All Dischargers in Tier 1, Tier 2 and Tier 3

54. Submittal of the electronic NOI is required pursuant to Water Code section 13260. Submittal of all other technical reports pursuant to this Order is required pursuant to Water Code section 13267. Failure to submit technical reports or the attachments in accordance with schedules established by this Order or MRP, or failure to submit a complete technical report (i.e., of sufficient technical quality to be acceptable to the Executive Officer), may subject the Discharger to enforcement action pursuant to Water Code sections 13261, 13268, or 13350. Dischargers must submit technical reports in the format specified by the Executive Officer.
55. Dischargers seeking authorization to discharge under this Order must submit a completed electronic NOI form to the Central Coast Water Board. Dischargers already enrolled in the 2004 Agricultural Order and who have submitted their NOI electronically are not required to submit a new NOI. Upon submittal of an accurate and complete electronic NOI, the Discharger is enrolled under the Order, unless otherwise informed by the Executive Officer.
- a. In the case where an operator may be operating for a period of less than 12 months, the landowner must submit the electronic NOI.
 - b. **Within 60 days** of the adoption of this Order, any Discharger who did not enroll in the 2004 Agricultural Order must submit an electronic NOI, unless otherwise directed by the Executive Officer.
 - c. **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 or farm/ranch 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 electronic NOI.
 - d. Dischargers must submit any updates to the electronic NOI by **October 1, 2012 and annually thereafter by October 1**, to reflect changes to operation or ranch/farm information.
 - e. **Within 60 days**, in the event of a change in control or ownership of an operation, farm/ranch, or land presently owned or controlled by the

Discharger, the Discharger must notify the succeeding owner and operator of the existence of this Order by letter, and forward a copy of the letter to the Executive Officer.

- f. **Within 60 days** of acquiring control or ownership of an operation or farm/ranch, any Discharger acquiring control or ownership of an existing operation or farm/ranch must submit an electronic NOI.
56. Dischargers must submit all the information required in the electronic NOI form including, but not limited to, the following information for the operation and individual farm/ranch:
- a. Identification of each property covered by enrollment,
 - b. Tier applicable to each farm/ranch,
 - c. Landowner(s),
 - d. Operator(s),
 - e. Contact information,
 - f. Option selected to comply with surface receiving water quality monitoring conditions (cooperative monitoring or individual),
 - g. Option selected to comply with groundwater monitoring conditions (cooperative monitoring or individual),
 - h. Location of operation, including specific farm(s)/ranch(es),
 - i. Farm/ranch map with discharge locations and groundwater wells identified,
 - j. Total and irrigated acreage,
 - k. Crop type,
 - l. Irrigation type,
 - m. Discharge type,
 - n. Chemical use,
 - o. Presence and location of any perennial, intermittent, or ephemeral streams or riparian or wetland area habitat.
57. Dischargers must submit a statement of understanding of the conditions of the Order and MRP signed by the Discharger (landowner or operator) with the electronic NOI form. If the operator signs and submits the electronic NOI, the operator must provide a copy of the completed NOI form to the landowner(s).
58. Dischargers must identify in the electronic NOI if the farm/ranch is a Tier 1, Tier 2, or Tier 3 and provide complete and accurate information in the NOI that allows the Central Coast Water Board to confirm the appropriate tier. For Dischargers who do not provide adequate information for the Water Board to confirm or determine the appropriate tier, the Executive Officer will place the farm/ranch in the appropriate tier based upon information submitted in the Notice of Intent or further communication with the Discharger.

59. Coverage under this Order is not transferable to any person except after submittal of an updated electronic NOI and approval by the Executive Officer.
60. For Dischargers who do not enroll in the Order in a timely manner as specified in this Order, the Executive Officer may require submittal of an ROWD, and the Discharger may be subject to WDRs.

Notice of Termination (NOT) for All Dischargers

61. **Immediately**, if a Discharger wishes to terminate coverage under the Order for the operation or an individual farm/ranch, the Discharger must submit a completed Notice of Termination (NOT). Termination from coverage is the date specified in the NOT, unless specified otherwise. All discharges, as defined in Attachment A, must cease before the date of termination, and any discharges on or after the date of termination shall be considered in violation of the Order, unless covered by other waivers of WDRs, general WDRs, or individual WDRs cover the discharge.

Monitoring and General Technical Reports for All Dischargers

62. Dischargers must submit monitoring reports in compliance with MRP Order No. R3-2012-0011, or alternative monitoring and reporting programs approved by Executive Officer as set forth in Finding 11 and Condition 11, electronically in a format specified by the Executive Officer.
63. Any laboratory data submitted to the Central Coast Water Board by Dischargers must be submitted by, or under the direction of, a State registered professional engineer, registered geologist, State certified laboratory or other similarly qualified professional. Surface water quality data must be submitted electronically, in a format that is compatible with the Central Coast Ambient Monitoring Program (CCAMP), the State's Surface Water Assessment Program (SWAMP) or as directed by the Executive Officer. Groundwater quality data must be submitted in a format compatible with the electronic deliverable format (EDF) used by the State Water Board's Geotracker data management system, or as directed by the Executive Officer.
64. Dischargers must submit technical reports that the Executive Officer may require to determine compliance with this Order as authorized by Water Code section 13267, electronically in a format specified by the Executive Officer.
65. If the Discharger asserts that all or a portion of a report submitted pursuant to this Order is subject to an exemption from public disclosure (e.g., trade secrets or secret processes), the Discharger must provide an explanation of how those portions of the reports are exempt from public disclosure. Also, the Discharger must clearly indicate on the cover of the report (typically an electronic submittal)

that the Discharger asserts that all or a portion of the report is exempt from public disclosure, submit a complete report with those portions that are asserted to be exempt in redacted form, submit separately (in a separate electronic file) unredacted pages (to be maintained separately by staff). The Central Coast Water Board staff will determine whether any such report or portion of a report qualifies for an exemption from public disclosure. If the Central Coast Water Board staff disagrees with the asserted exemption from public disclosure, the Central Coast Water Board staff will notify the Discharger prior to making such report or portions of such report available for public inspection. In the interest of public health and safety, the Central Coast Water Board will not make available for public inspection, the precise location of any groundwater well monitored in compliance with this Order. Consistent with the reporting of groundwater wells on GeoTracker, groundwater well location and data will only be referenced within a one-half mile radius of the actual well location.

66. Dischargers or a representative authorized by the Discharger must sign technical reports submitted to comply with the Order. Any person signing a report submitted as required by this Order must make the following certification:

"In compliance with Water Code section 13267, I certify under penalty of perjury that this document and all attachments were prepared by me, or under my direction or supervision, following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. To the best of my knowledge and belief, this document and all attachments are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Part E. Additional Conditions that Apply to Tier 2 and Tier 3 Dischargers

Annual Compliance Reporting for Tier 2 and Tier 3 Dischargers

67. By **October 1, 2012, and updated by October 1 annually thereafter**, Tier 2 and Tier 3 Dischargers must submit an Annual Compliance Form electronically, in a format specified by the Executive Officer that includes all the information requested, per MRP Order No. R3-2012-0011-02 and MRP Order No. R3-2012-0011-03, respectively. The purpose of the electronic Annual Compliance Form is to provide up-to-date information to the Central Coast Water Board to assist in the evaluation of affect on water quality from agricultural waste discharges and evaluate progress towards compliance with this Order, including implementation of management practices, treatment or control measures, or changes in farming practices.

68. **By October 1, 2012**, Tier 2 and Tier 3 Dischargers must determine nitrate loading risk factor(s) in accordance with MRP Order No. R3-2012-0011-02 and MRP Order No. R3-2012-0011-03 and report the nitrate loading risk factors and overall Nitrate Loading Risk level calculated for each ranch/farm or nitrate loading risk unit in the Annual Compliance Form, electronically (or in a format specified by the Executive Officer).

Photo Monitoring for Tier 2 and Tier 3 Dischargers with farms/ranches adjacent to or containing a waterbody identified on the 2010 List of Impaired Waterbodies as impaired for temperature, turbidity, or sediment

69. **By October 1, 2012**, and every four years thereafter, Tier 2 and Tier 3 Dischargers with farms/ranches adjacent to or containing a waterbody identified on the 2010 List of Impaired Waterbodies as impaired for temperature, turbidity, or sediment (identified in Table 1) must conduct photo monitoring per MRP Order No. R3-2012-0011-02 and MRP Order No. R3-2012-0011-03, respectively. Photo monitoring must document the condition of perennial, intermittent, or ephemeral streams and riparian and wetland area habitat, and demonstrate compliance with Basin Plan erosion and sedimentation requirements (see Part F. 80 of this Order), including the presence of bare soil vulnerable to erosion and relevant management practices and/or treatment and control measures implemented to address impairments. Photo documentation must be submitted electronically, in a format specified by the Executive Officer.

Total Nitrogen Reporting for Tier 2 and Tier 3 Dischargers with farms/ranches with High Nitrate Loading Risk

70. **By October 1, 2014 and by October 1 annually thereafter**, Tier 2 and Tier 3 Dischargers with a farm/ranch with High Nitrate Loading Risk must record and report total nitrogen applied in the Annual Compliance Form, electronically in a format specified by the Executive Officer, per MRP Order No. R3-2012-0011-02 and MRP Order No. R3-2012-0011-03, respectively.
71. As an alternative to reporting total nitrogen applied in the electronic Annual Compliance Form, Tier 2 and Tier 3 Dischargers with a farm/ranch with High Nitrate Loading Risk may propose an individual discharge groundwater monitoring and reporting program (GMRP) plan for approval by the Executive Officer. The GMRP plan must evaluate waste discharge to groundwater from each ranch/farm or nitrate loading risk unit with a High Nitrate Loading Risk.

Part F. Additional Conditions that Apply to Tier 3 Dischargers

72. **By October 1, 2013**, Tier 3 Dischargers must initiate individual surface water discharge monitoring per MRP Order No. R3-2012-0011-03 or alternative monitoring and reporting programs approved by Executive Officer as set forth in Finding 11 and Condition 11.
73. **By March 15, 2014, October 1, 2014** and annually thereafter by October 1, Tier 3 Dischargers must submit individual surface water discharge monitoring data and reports per MRP Order No. R3-2012-0011-03, electronically, in a format specified by the Executive Officer, or alternative monitoring and reporting programs approved by Executive Officer as set forth in Finding 11 and Condition 11 .

Irrigation and Nutrient Management Plan for Tier 3 Dischargers with farms/ranches with High Nitrate Loading Risk

74. **By October 1, 2013**, Tier 3 Dischargers with High Nitrate Loading Risk farms/ranches must determine the typical crop nitrogen uptake for each crop type produced and report the basis for the determination (e.g., developed by commodity or industry group, published agronomic literature, research trials, site specific analysis of dry biomass of crop for the nitrogen concentration), per MRP Order No. R3-2012-0011-03.
75. Tier 3 Dischargers with High Nitrate Loading Risk farms/ranches must develop and initiate implementation of an Irrigation and Nutrient Management Plan (INMP) certified by a Professional Soil Scientist, Professional Agronomist, or Crop Advisor certified by the American Society of Agronomy, or similarly qualified professional, per MRP Order No. R3-2012-0011-03.
76. As an alternative to the development and implementation of an INMP, Tier 3 Dischargers with High Nitrate Loading Risk farms/ranches may propose an individual discharge groundwater monitoring and reporting program (GMRP) plan for approval by the Executive Officer. The GMRP plan must evaluate waste discharge to groundwater from each ranch/farm or nitrate loading risk unit and assess if the waste discharge is of sufficient quality that it will not cause or contribute to exceedances of any nitrate water quality standards in groundwater.
77. **By October 1, 2015 and annually thereafter**, Tier 3 Dischargers with High Nitrate Loading Risk farms/ranches must report specific INMP elements in the Annual Compliance Form per MRP Order No. R3-2012-0011-03, electronically in a format specified by the Executive Officer.
78. **By October 1, 2015**, Tier 3 Dischargers with High Nitrate Loading Risk farms/ranches must report progress towards the following Nitrogen Balance ratio

milestones or implement an alternative to demonstrate an equivalent nitrogen load reduction. The Nitrogen Balance ratio refers to the total number of nitrogen units applied to the crop (considering all sources of nitrogen) relative to the typical nitrogen uptake value of the crop (crop need to grow and produce, amount removed at harvest plus the amount remaining in the system as biomass).

- a. Dischargers producing crops in annual rotation (such as a cool season vegetable in a triple cropping system) must report progress towards a Nitrogen Balance ratio target equal to one (1). A target of one (1) allows a Discharger to apply 100% of the amount of nitrogen required by the crop to grow and produce yield for every crop in the rotation. (Nitrogen applied includes any product, form or concentration, including but not limited to, organic and inorganic fertilizers, slow release products, compost, compost teas, manure, extracts, nitrogen present in the soil and nitrate in irrigation water.)
- b. Dischargers producing annual crops occupying the ground for the entire year (e.g., strawberries or raspberries) must report progress towards a Nitrogen Balance ratio target equal to 1.2. A target of 1.2 allows a Discharger to apply 120% of the amount of nitrogen required by the crop to grow and produce a yield.
- c. Beyond three years, Dischargers must demonstrate improved irrigation and nutrient management efficiency, improved Nitrogen Balance ratios, and reduced nitrate loading to groundwater. In the long term, the Nitrogen Balance ratio should compare the total amount of nitrogen applied to the crop against the total nitrogen removed at harvest, rather than the typical nitrogen crop uptake, to accurately calculate the nitrogen remaining and available to the crop or that could load to groundwater.

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

Water Quality Buffer Plan for Tier 3 Dischargers with farms/ranches adjacent to or containing a waterbody identified on the 2010 List of Impaired Waterbodies as impaired for temperature, turbidity, or sediment

80. By October 1, 2016, Tier 3 Dischargers with farms/ranches adjacent to or containing a waterbody identified on the 2010 List of Impaired Waterbodies as impaired for temperature, turbidity, or sediment (see Table 1) must develop a Water Quality Buffer Plan per MRP Order No. R3-2012-0011-03 that protects the

listed waterbody and its associated perennial and intermittent tributaries, including adjacent wetlands as defined by the Clean Water Act. Dischargers must submit the Water Quality Buffer Plan as a report with the Annual Compliance Form, submitted electronically in a format specified by the Executive Officer. The purpose of the Water Quality Buffer Plan is to control discharges of waste that cause or contribute to exceedances of water quality standards in waters of the State or United States in compliance with this Order and the following Basin Plan requirement:

- a. Basin Plan (Chapter 5, p. V-13, Section V.G.4 – Erosion and Sedimentation, *“A filter strip of appropriate width, and consisting of undisturbed soil and riparian vegetation or its equivalent, shall be maintained, wherever possible, between significant land disturbance activities and watercourses, lakes, bays, estuaries, marshes, and other water bodies. For construction activities, minimum width of the filter strip shall be thirty feet, wherever possible. ..”*
 - b. As an alternative to the development and implementation of a Water Quality Buffer Plan, Tier 3 Dischargers may submit evidence to the Executive Officer to demonstrate that any discharge of waste is sufficiently treated or controlled such that it is of sufficient quality that it will not cause or contribute to exceedances of water quality standards in waters of the State or of the United States.
81. Tier 3 Dischargers with farms/ranches adjacent to or containing a waterbody identified on the 2010 List of Impaired Waterbodies as impaired for temperature, turbidity, or sediment must implement the Water Quality Buffer Plan immediately upon submittal, unless the plan requests a time extension that is approved by the Executive Officer. If the Executive Officer determines the Water Quality Buffer Plan is not in compliance with this Order, the Executive Officer will notify the Discharger and the Discharger must make necessary modifications accordingly.

Part G. TIME SCHEDULE

82. Time schedules for compliance with conditions are identified in Conditions 84 – 87, and described in Table 2 (all Dischargers) and Table 3 (Tier 2 and Tier 3 Dischargers). Milestones are identified in Table 4. Dischargers must comply with Order Conditions by dates specified in Tables 2 and 3 in accordance with the MRP. The Water Board will consider the following information in determining the extent to which the Discharger is effectively controlling individual waste discharges and compliance with this Order:
- a) compliance with the time schedules;
 - b) effectiveness of management practice implementation;

- c) effectiveness of treatment or control measures (including cooperative water quality improvement efforts, and local and regional treatment strategies);
 - d) results of individual discharge monitoring (Tier 3);
 - e) results of surface receiving water monitoring downstream of the point where the individual discharge enters the receiving water body;
 - f) other information obtained by Water Board staff during inspections at operations or farms/ranches, or submitted in response to Executive Officer orders;
83. The Executive Officer may require additional monitoring and reporting as authorized by Water Code section 13267 in cases where Dischargers fail to demonstrate adequate progress towards compliance as indicated by milestones and compliance with other Conditions of the Order.
84. **By October 1, 2014**, Tier 3 Dischargers must effectively control individual waste discharges of pesticides and toxic substances to waters of the State and of the United States.
85. **By October 1, 2015**, Tier 3 Dischargers must effectively control individual waste discharges of sediment and turbidity to surface waters of the State or of the United States.
86. **By October 1, 2016**, Tier 3 Dischargers must effectively control individual waste discharges of nutrients to surface waters of the State or of the United States.
87. **By October 1, 2016**, Tier 3 Dischargers must effectively control individual waste discharges of nitrate to groundwater.
88. This Order becomes effective on March 15, 2012 and expires on March 14, 2017, unless rescinded or renewed by the Central Coast Water Board.

I, Roger W. Briggs, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order and Attachments adopted by the California Regional Water Quality Control Board, Central Coast Region, on March 15, 2012.



Roger W. Briggs
Executive Officer

Table 1. 2010 Clean Water Act Section 303(d) List of Impaired Waterbodies Impaired for Toxicity, Pesticides, Nutrients, Temperature, Turbidity, or Sediment

Waterbody Name	Impairment(s)¹
Alisal Creek (Monterey Co.) ³	Toxicity, Nutrients
Aptos Creek ²	Sediment
Arana Gulch ³	Pesticides
Arroyo Paredon ³	Toxicity, Pesticides, Nutrients
Beach Road Ditch ²	Nutrients, Turbidity
Bean Creek ²	Sediment
Bear Creek (Santa Cruz Co.) ²	Sediment
Bell Creek (Santa Barbara Co.) ³	Toxicity, Nutrients
Blanco Drain ^{2,3}	Pesticides, Nutrients, Turbidity
Blosser Channel	Toxicity, Nutrients
Boulder Creek ²	Sediment
Bradley Canyon Creek ^{2,3}	Toxicity, Nutrients, Turbidity
Bradley Channel ³	Toxicity, Pesticides, Nutrients
Branciforte Creek ^{2,3}	Pesticides, Sediment
Carbonera Creek ²	Nutrients, Sediment
Carnadero Creek	Nutrients, Turbidity
Carneros Creek (Monterey Co.) ²	Nutrients, Turbidity
Carpinteria Creek ³	Pesticides
Carpinteria Marsh (El Estero Marsh)	Nutrients
Casmalia Canyon Creek ²	Sediment
Chorro Creek ²	Nutrients, Sediment
Chualar Creek ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity, Temperature
Corralitos Creek ²	Turbidity
Elkhorn Slough ^{2,3}	Pesticides, Sediment
Esperanza Creek	Nutrients
Espinosa Lake ³	Pesticides
Espinosa Slough ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity
Fall Creek ²	Sediment
Franklin Creek (Santa Barbara Co.) ³	Pesticides, Nutrients
Furlong Creek ^{2,3}	Pesticides, Nutrients, Turbidity
Gabilan Creek ^{2,3}	Toxicity, Nutrients, Turbidity
Glen Annie Canyon ³	Toxicity, Nutrients

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 FOR DISCHARGES FROM IRRIGATED LANDS

Greene Valley Creek (Santa Barbara Co.) ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity, Temperature
Kings Creek ²	Sediment
Little Oso Flaco Creek ³	Toxicity, Nutrients
Llagas Creek (below Chesbro Reservoir) ^{2,3}	Pesticides, Nutrients, Sediment, Turbidity
Lompico Creek ²	Nutrients, Sediment
Los Berros Creek	Nutrients
Los Carneros Creek	Nutrients
Los Osos Creek ²	Nutrients, Sediment
Love Creek ²	Sediment
Main Street Canal ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity
McGowan Ditch	Nutrients
Merrit Ditch ^{2,3}	Toxicity, Nutrients, Turbidity
Millers Canal ^{2,3}	Pesticides, Turbidity, Temperature
Mission Creek (Santa Barbara Co.) ³	Toxicity
Monterey Harbor ³	Toxicity
Moro Cojo Slough ^{2,3}	Pesticides, Nutrients, Sediment
Morro Bay ²	Sediment
Moss Landing Harbor ^{2,3}	Toxicity, Pesticides, Sediment
Mountain Charlie Gulch ²	Sediment
Natividad Creek ^{2,3}	Toxicity, Nutrients, Turbidity, Temperature
Newell Creek (Upper) ²	Sediment
Nipomo Creek ³	Toxicity, Nutrients
North Main Street Channel	Nutrients
Old Salinas River Estuary ³	Pesticides, Nutrients
Old Salinas River ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity
Orcutt Creek ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity, Temperature
Oso Flaco Creek ³	Toxicity, Nutrients
Oso Flaco Lake ³	Pesticides, Nutrients
Pacheco Creek ²	Turbidity
Pacific Ocean (Point Ano Nuevo to Soquel Point) ³	Pesticides
Pajaro River ^{2,3}	Pesticides, Nutrients, Sediment, Turbidity
Prefumo Creek ²	Nutrients, Turbidity
Quail Creek ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity, Temperature
Rider Creek ²	Sediment
Rincon Creek ^{2,3}	Toxicity, Turbidity
Rodeo Creek Gulch ²	Turbidity

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Salinas Reclamation Canal ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity
Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920) ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity
Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River) ^{2,3}	Toxicity, Pesticides, Turbidity, Temperature
Salinas River Lagoon (North) ³	Pesticides, Nutrients
Salinas River Refuge Lagoon (South) ²	Turbidity
Salsipuedes Creek (Santa Cruz Co.) ²	Turbidity
San Antonio Creek (below Rancho del las Flores Bridge at Hwy 135) ³	Pesticides, Nutrients
San Benito River ^{2,3}	Toxicity, Sediment
San Juan Creek (San Benito Co.) ^{2,3}	Toxicity, Nutrients, Turbidity
San Lorenzo River ^{2,3}	Pesticides, Nutrients, Sediment
San Luis Obispo Creek (below Osos St.) ³	Pesticides, Nutrients
San Simeon Creek	Nutrients
San Vicente Creek (Santa Cruz Co.) ²	Sediment
Santa Maria River ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity
Santa Rita Creek (Monterey Co.) ²	Nutrients, Turbidity
Santa Ynez River (below city of Lompoc to Ocean) ²	Nutrients, Sediment, Temperature
Santa Ynez River (Cachuma Lake to below city of Lompoc)	Sediment, Temperature
Schwan Lake	Nutrients
Shingle Mill Creek ²	Nutrients, Sediment
Shuman Canyon Creek ²	Sediment
Soda Lake	Nutrients
Soquel Creek ²	Turbidity
Soquel Lagoon ²	Sediment
Tembladero Slough ^{2,3}	Toxicity, Pesticides, Nutrients, Turbidity
Tequisquita Slough ²	Turbidity
Uvas Creek (below Uvas Reservoir) ²	Turbidity
Valencia Creek ²	Sediment
Warden Creek	Nutrients
Watsonville Creek	Nutrients
Watsonville Slough ^{2,3}	Pesticides, Turbidity
Zayante Creek ^{2,3}	Pesticides, Sediment

¹Dischargers with farms/ranches located within 1000 feet of a surface waterbody listed for toxicity, pesticides, nutrients, turbidity or sediment on the 2010 List of Impaired Waterbodies are included as Tier 2 or Tier 3;

²Tier 2 and Tier 3 Dischargers with farms/ranches adjacent to or containing a waterbody identified on the 2010 List of Impaired Waterbodies as impaired for temperature, turbidity, or sediment must conduct photo monitoring, and Tier 3 Dischargers must also implement a Water Quality Buffer Plan.

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³Dischargers who apply chemicals known to cause toxicity to surface water to a farm/ranch that discharges to a waterbody on the 2010 303(d) List of Impaired Waterbodies for toxicity or pesticides must meet conditions in this Order for Tier 3.

Table 2. Time Schedule for Compliance with Conditions for All Dischargers (Tier 1, Tier 2, and Tier 3)

CONDITIONS	COMPLIANCE DATE ¹
Submit Notice of Intent (NOI)	Within 60 days of adoption of Order or Within 60 days acquiring ownership/ control, and prior to any discharge or commencement of activities that may cause discharge.
Submit Update to NOI	Within 60 days, upon adoption of Order and upon change of control or ownership
Submit Notice of Termination	Immediately, when applicable
Submit Monitoring Reports per MRP	Per date in MRP
Implement, and update as necessary, management practices to achieve compliance with this Order.	Ongoing
Protect existing aquatic habitat to prevent discharge of waste	Immediately
Submit surface receiving water quality monitoring annual report	Within one year, and annually thereafter by January 1
Develop/update and implement Farm Plan	October 1, 2012
Install and maintain adequate backflow prevention devices.	October 1, 2012
Submit groundwater monitoring results and information	October 1, 2013
Properly destroy abandoned groundwater wells.	October 1, 2015

Table 3. Additional Time Schedule for Compliance with Conditions Tier 2 and Tier 3 Dischargers

CONDITIONS	COMPLIANCE DATE
<i>Tier 2 and Tier 3:</i>	
Submit electronic Annual Compliance Form	October 1, 2012, and updated annually thereafter by October 1.
Submit photo documentation of riparian or wetland area habitat (if farm/ranch contains or is adjacent to a waterbody impaired for temperature, turbidity, or sediment)	October 1, 2012, and every four years thereafter by October 1.
Calculate Nitrate Loading Risk level and report in electronic Annual Compliance Form	October 1, 2012, and annually thereafter by October 1.
Submit total nitrogen applied in electronic Annual Compliance Form (if discharge has High Nitrate Loading Risk)	October 1, 2014, and annually thereafter by October 1.
<i>Only Tier 3:</i>	
Initiate individual surface water discharge monitoring	October 1, 2013
Determine Crop Nitrogen Uptake (if discharge has High Nitrate Loading Risk)	October 1, 2013
Submit individual surface water discharge monitoring data	March 15, 2014, October 1, 2014 and annually thereafter by October 1
Submit INMP elements in electronic Annual Compliance Form (if discharge has High Nitrate Loading Risk), including Nitrogen Balance Ratio	October 1, 2015, and annually thereafter by October 1
Submit progress towards Nitrogen Balance Ratio target equal to one (1) for crops in annual rotation (e.g., cool season vegetables) or alternative, (if discharge has High Nitrate Loading Risk)	October 1, 2015
Submit progress towards Nitrogen Balance Ratio target equal to 1.2 for annual crops occupying the ground for the entire year (e.g., strawberries or raspberries) or alternative, (if discharge has High Nitrate Loading Risk)	
Submit Water Quality Buffer Plan or alternative (if farm/ranch contains or is adjacent to a waterbody impaired for temperature, turbidity, or sediment)	October 1, 2016
Submit INMP Effectiveness Report (if discharge has High Nitrate Loading Risk)	October 1, 2016

Table 4. Time Schedule for Milestones

MILESTONES ¹	DATE
<i>Tier 1, Tier 2 and Tier 3:</i>	
Measurable progress towards water quality standards in waters of the State or of the United States ¹ , or Water quality standards met in waters of the State or of the United States.	Ongoing October 1, 2016
<i>Only Tier 3:</i>	
<u>Pesticide and Toxic Substances Waste Discharges to Surface Water</u> <i>- One of two individual surface water discharge monitoring samples is not toxic</i> <i>- Two of two individual surface water discharge monitoring samples are not toxic</i>	October 1, 2014 October 1, 2015
<u>Sediment and Turbidity Waste Discharges to Surface Water</u> <i>- Four individual surface water discharge monitoring samples are collected and analyzed for turbidity.</i> <i>- 75% reduction in turbidity or sediment load in individual surface water discharge relative to October 1, 2012 load (or meet water quality standards for turbidity or sediment in individual surface water discharge)</i>	October 1, 2014 October 1, 2015
<u>Nutrient Waste Discharges to Surface Water</u> <i>- Four individual surface water discharge monitoring samples are collected and analyzed</i> <i>- 50% load reduction in nutrients in individual surface water discharge relative to October 1, 2012 load (or meet water quality standards for nutrients in individual discharge)</i>	October 1, 2014 October 1, 2015

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<p>- 75% load reduction in nutrients in individual surface water discharge relative to October 1, 2012 load (or meet water quality standards for nutrients in individual surface water discharge)</p>	<p>October 1, 2016</p>
<p><u>Nitrate Waste Discharges to Groundwater</u> - Achieve annual reduction in nitrogen loading to groundwater based on Irrigation and Nutrient Management Plan effectiveness and load evaluation</p>	<p>October 1, 2016 and annually thereafter</p>
<p>- Achieve Nitrogen Balance Ratio equal to one (1) for crops in annual rotation (e.g., cool season vegetables) or alternative, (if discharge has High Nitrate Loading Risk)</p>	
<p>- Achieve Nitrogen Balance Ratio equal to 1.2 for annual crops occupying the ground for the entire year (e.g., strawberries or raspberries) or alternative, (if discharge has High Nitrate Loading Risk)</p>	<p>October 1, 2015</p>

Indicators of progress towards milestones includes, but is not limited to data and information related to a) management practice implementation and effectiveness, b) treatment or control measures, c) individual discharge monitoring results, d) receiving water monitoring results, and e) related reporting.

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

**ORDER NO. R3-2012-0011
ATTACHMENT A**

**ADDITIONAL FINDINGS, APPLICABLE WATER QUALITY CONTROL PLANS AND
DEFINITIONS
FOR
CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES FROM IRRIGATED LANDS**

Order No. R3-2012-0011 (Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands) requires Dischargers to comply with applicable state plans and policies and applicable state and federal water quality standards and to prevent nuisance. Water quality standards are set forth in state and federal plans, policies, and regulations. The California Regional Water Quality Control Board Central Coast Region's (Central Coast Water Board) Water Quality Control Plan contains specific water quality objectives, beneficial uses, and implementation plans that are applicable to discharges of waste and/or waterbodies that receive discharges of waste from irrigated lands. The State Water Resources Control Board (State Water Board) has adopted plans and policies that may be applicable to discharges of waste and/or surface waterbodies or groundwater that receive discharges of waste from irrigated lands. The United States Environmental Protection Agency (USEPA) has adopted the *National Toxics Rule* and the *California Toxics Rule*, which constitute water quality criteria that apply to waters of the United States.

The specific waste constituents required to be monitored and the applicable water quality standards that protect identified beneficial uses for the receiving water are set forth in Monitoring and Reporting Program (MRP) Order No. R3-2012-0011-01, MRP Order No. R3-2012-0011-02, and MRP Order No. R3-2012-0011-03.

This Attachment A lists additional findings (Part A), relevant plans, policies, regulations (Part B), and definitions of terms (Part C) used in Order No. R3-2012-0011.

PART A. ADDITIONAL FINDINGS

The California Regional Water Quality Control Board, Central Coast Region additionally finds that:

1. The Central Coast Water Board is the principal state agency in the Central Coast Region with primary responsibility for the coordination and control of water quality. (Cal. Wat. Code § 13001, Legislative Intent) The purpose of this Order is to focus on the highest water quality priorities and maximize water quality protection to ensure the long-term reliability and availability of water resources of sufficient supply and quality for all present and future beneficial uses, including drinking water and aquatic life. Given the magnitude and severity of water quality impairment and impacts to beneficial uses caused by irrigated agriculture and the significant cost to the public, the Central Coast Water Board finds that it is reasonable and necessary to require specific actions to protect water quality.
2. The Central Coast Water Board recognizes that Dischargers may not achieve immediate compliance with all requirements. Thus, this Order provides reasonable schedules for Dischargers to reach full compliance over many years by implementing management practices and monitoring and reporting programs that demonstrate and verify measurable progress annually. This Order includes specific dates to achieve compliance with this Order and milestones that will reduce pollutant loading or impacts to surface water and groundwater in the short term (e.g., a few years) and achieve water quality standards in surface water and groundwater in the longer term (e.g., decades); some compliance dates extend beyond the term of this Order. The focus of this Order is non-tile drain discharges, although Tier 3 tile drain discharges on individual farms/ranches must be monitored. Dischargers with tile drains must also describe management practices used or proposed to be used to attain water quality standards or minimize exceedances in receiving waters while making progress to attain water quality standards. The Executive Officer will evaluate any proposed longer timeframes to address tile-drain discharges.
3. According to California Water Code Section 13263(g), the discharge of waste to waters of the State is a privilege, not a right. It is the responsibility of dischargers of waste from irrigated lands to comply with the Water Code by seeking waste discharge requirements (WDRs) or by complying with a waiver of WDRs. This Order waiving the requirement to obtain WDRs provides a mechanism for dischargers of waste from irrigated lands to meet their responsibility to comply with the Water Code and to prevent degradation of waters of the State, prevent nuisance, and to protect the beneficial uses. Dischargers are responsible for the quality of surface waters and ground waters that have received discharges of waste from their irrigated lands.

4. In the Central Coast Region, nearly all agricultural, municipal, industrial, and domestic water supply comes from groundwater. Groundwater supplies approximately 90 percent of the drinking water on the Central Coast. Currently, more than 700 municipal public supply wells in the Central Coast Region provide drinking water to the public. In addition, based on 1990 census data, there are more than 40,000 permitted private wells in the Region, most providing domestic drinking water to rural households and communities from shallow sources. The number of private domestic wells has likely significantly increased in the past 20 years due to population growth.
5. In the Salinas, Pajaro, and Santa Maria groundwater basins, agriculture accounts for approximately 80 to 90 percent of groundwater pumping (MCWRA, 2007; PVWMA, 2002; Luhdorff and Scalmanini Consulting Engineers. April 2009).
6. The Central Coast Region supports some of the most significant biodiversity of any temperate region in the world and is home to the last remaining population of the California sea otter, three sub-species of threatened or endangered steelhead (*Oncorhynchus mykiss*) and one sub-species of endangered coho salmon (*Oncorhynchus kisutch*). The endangered marsh sandwort (*Arenaria paludicola*), Gambel's watercress (*Nasturtium rorippa gambelii*), California least tern (*Sterna antillarum browni*), and threatened red-legged frog (*Rana aurora*) are present in the region.
7. Several watersheds drain into Monterey Bay National Marine Sanctuary, one of the largest marine sanctuaries in the world. Elkhorn Slough is one of the largest remaining tidal wetlands in the United States and one of the National Oceanic and Atmospheric Administration (NOAA) designated National Estuarine Research Reserves. The southern portion includes the Morro Bay National Estuary and its extensive salt marsh habitat.
8. The two endangered plants, marsh sandwort and Gambel's watercress, are critically imperiled and their survival depends upon the health of the Oso Flaco watershed. The last remaining known population of marsh sandwort and one of the last two remaining known populations of Gambel's watercress occur in Oso Flaco Lake (United States Department of the Interior Fish and Wildlife Service, 2007).
9. The Central Coast of California is one of the most productive and profitable agricultural regions in the nation, reflecting a gross production value of more than six billion dollars in 2008 and contributing to more than 14 percent of California's agricultural economy. The region produces many high value specialty crops including lettuce, strawberries, raspberries, artichokes, asparagus, broccoli, carrots, cauliflower, celery, fresh herbs, mushrooms, onions, peas, spinach, wine

grapes, tree fruit and nuts. An adequate water supply of sufficient quality is critical to supporting the agricultural industry on the Central Coast.

LEGAL AND REGULATORY CONSIDERATIONS

10. This Attachment A to Order No. R3-2012-0011 identifies applicable plans and policies adopted by the State Water Board and the Central Coast Water Board that contain regulatory requirements that apply to the discharge of waste from irrigated lands. This Attachment A also provides definitions of terms for purposes of this Order.
11. The Water Code grants authority to the State Water Board with respect to State water rights and water quality regulations and policy, and establishes nine Regional Water Boards with authority to regulate discharges of waste that could affect the quality of waters of the State and to adopt water quality regulations and policy.
12. As further described in the Order, discharges from irrigated lands affect the quality of the waters of the State depending on the quantity of the waste discharge, quantity of the waste, the quality of the waste, the extent of treatment, soil characteristics, distance to surface water, depth to groundwater, crop type, implementation of management practices and other site-specific factors. Discharges from irrigated lands have impaired and will continue to impair the quality of the waters of the State within the Central Coast Region if such discharges are not controlled.
13. Water Code Section 13267(b)(1) authorizes the Central Coast Water 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, this Attachment A, and the records of the Water Board provide the evidence demonstrating that discharges of waste from irrigated lands have degraded and/or polluted the waters of the state. Persons subject to this Order discharge waste from irrigated lands that impacts the quality of the waters of the state. Therefore it is reasonable to require such persons to prepare and submit technical reports.
14. Water Code Section 13269 provides that the Central Coast Water Board may waive the requirement in Water Code section 13260(a) to obtain WDRs. Water Code section 13269 further provides that any such waiver of WDRs shall be conditional, must include monitoring requirements unless waived, may not exceed five years in duration, and may be terminated at any time by the Central Coast Water Board or Executive Officer.

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15. Water Code Section 13269(a)(4)(A) authorizes the Central Coast Water Board to include as a condition of a conditional waiver the payment of an annual fee established by the State Water Board. California Code of Regulations, Title 23, Division 3, Chapter 9, Article 1, Section 2200.3 sets forth the applicable fees. The Order requires each Discharger to pay an annual fee to the State Water Board in compliance with the fee schedule.
16. The Water Quality Control Plan for the Central Coast Basin (Basin Plan) designates beneficial uses, establishes water quality objectives, contains programs of implementation needed to achieve water quality objectives, and references the plans and policies adopted by the State Water Board. The water quality objectives are required to protect the beneficial uses of waters of the State identified in this Attachment A.
17. The Order is consistent with the Basin Plan because it requires Dischargers to comply with applicable water quality standards, as defined in this Attachment A, and requires terms and conditions, including implementation of management practices. The Order also requires monitoring and reporting as defined in MRP Order No. R3-2012-0011-01, MRP Order No. R3-2012-0011-02, and MRP Order No. R3-2012-0011-03 to determine the effects of discharges of waste from irrigated lands on water quality, verify the adequacy and effectiveness of this Order's terms and conditions, and to evaluate individual Discharger's compliance with this Order.
18. Water Code Section 13246 requires boards, in carrying out activities that affect water quality to comply with State Water Board policy for water quality control. This Order requires compliance with applicable State Water Board policies for water quality control.
19. This Order is consistent with the requirements of the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (NPS Policy) adopted by the State Water Board in May 2004. The NPS Policy requires, among other key elements, that an NPS control implementation program's ultimate purpose shall be explicitly stated and that the implementation program must, at a minimum, address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable anti-degradation requirements. The NPS Policy improves the State's ability to effectively manage NPS pollution and conform to the requirements of the Federal Clean Water Act and the Federal Coastal Zone Act Reauthorization Amendments of 1990. The NPS Policy provides a bridge between the State Water Board's January 2000 *NPS Program Plan* and its 2010 *Water Quality Enforcement Policy*. The NPS Policy's five key elements are:

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- a. Key Element #1 - Addresses NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses
 - b. Key Element #2 - Includes an implementation program with descriptions of the Management Practices (MPs) and other program elements and the process to be used to ensure and verify proper MP implementation
 - c. Key Element #3 - Includes a specific time schedule and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements
 - d. Key Element #4 - Contains monitoring and reporting requirements that allow the Water Board, dischargers, and the public to determine that the program is achieving its stated purpose(s) and/or whether additional or different MPs or other actions are required
 - e. Key Element #5 - Clearly discusses the potential consequences for failure to achieve the NPS control implementation program's stated purposes
20. Consistent with the NPS Policy, management practice implementation assessment may, in some cases, be used to measure nonpoint source control progress. However, management practice implementation never may be a substitute for meeting water quality requirements.
21. This Order is consistent with provisions of State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California." Regional boards, in regulating the discharge of waste, must maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Board's policies. The Order will result in improved water quality throughout the region. Dischargers must comply with all applicable provisions of the Basin Plan, including water quality objectives, and implement best management practices to prevent pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State. The conditions of this waiver will protect high quality waters and restore waters that have already experienced some degradation.
22. This Order is consistent with State Water Board Resolution 68-16. This Order requires Dischargers to 1) comply with the terms and conditions of the Order and meet applicable water quality standards in the waters of the State; 2) develop and implement management practices, treatment or control measures, or change farming practices, when discharges are causing or contributing to exceedances of applicable water quality standards; 3) conduct activities in a manner to prevent nuisance; and 4) conduct activities required by MRP Order No. R3-2012-0011-01, MRP Order No. R3-2012-0011-02, and MRP Order No. R3-2012-0011-03, and revisions thereto.

RATIONALE FOR THIS ORDER

23. On April 15, 1983, the Central Coast Water Board approved a policy waiving WDRs for 26 categories of discharges, including irrigation return flows and non-NPDES stormwater runoff. Pursuant to Water Code Section 13269, these waivers terminated on January 1, 2003.
24. On July 9, 2004, the Central Coast Water Board adopted Resolution No. R3-2004-0117 establishing the 2004 Agricultural Order.
25. Dischargers enrolled in the 2004 Agricultural Order established the Cooperative Monitoring Program (CMP) in compliance with monitoring requirements. The CMP collected and analyzed data for 15 to 20 parameters from 50 sites in multiple watersheds and identified severe surface water quality impairments resulting from agricultural land uses and discharges. CMP did not attempt to identify the individual farm operations that are causing the surface water quality impairments. The lack of discharge monitoring and reporting, the lack of verification of on-farm water quality improvements, and the lack of public transparency regarding on-farm discharges, are critical limitations of the 2004 Agricultural Order, especially given the scale and severity of the surface water and groundwater impacts and the resulting costs to society. The Order addresses these limitations.
26. The Central Coast Water Board extended the 2004 Agricultural Order multiple times. The 2004 Agricultural Order expires on September 30, 2012.
27. The Central Coast Water Board reviewed all available data, including information collected in compliance with the 2004 Agricultural Order, and determined that discharges of waste from irrigated lands continue to result in degradation and pollution of surface water and groundwater, and impairment of beneficial uses, including drinking water and aquatic habitat, and determined that additional conditions are necessary to ensure protection of water quality and to measure the effectiveness of implementation of the Order.
28. It is appropriate to adopt a waiver of WDRs for this category of discharges because, as a group, the discharges have the same or similar waste from the same or similar operations and use the same or similar treatment methods and management practices (e.g., source control, reduced agricultural surface runoff, reduced chemical use, holding times, cover crops, etc.).
29. It is appropriate to regulate discharges of waste from irrigated lands under a conditional waiver rather than individual WDRs in order to simplify and streamline the regulatory process. Water Board staff estimate that there are more than 3000 individual owners and/or operators of irrigated lands who discharge waste from

irrigated lands; therefore, it is not an efficient use of resources to adopt individual WDRs for all Dischargers within a reasonable time.

30. This Order is in the public interest because:

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

31. This Order waives the requirement for Dischargers to obtain WDRs for discharges of waste from irrigated lands if the Dischargers are in compliance with the Order. This Order is conditional, may be terminated at any time, does not permit any illegal activity, does not preclude the need for permits that may be required by other State or local government agencies, and does not preclude the Central Coast Water Board from administering enforcement remedies (including civil liability) pursuant to the Water Code.

32. The Central Coast Water Board may consider issuing individual WDRs to some Dischargers because of their actual or potential contribution to water quality impairments, history of violations, or other factors.

IMPACTS TO WATER QUALITY FROM AGRICULTURAL DISCHARGES

Impacts to Groundwater – Drinking Water and Human Health

33. Nitrate pollution of drinking water supplies is a critical problem throughout the Central Coast Region. Studies indicate that fertilizer from irrigated agriculture is

the primary source of nitrate pollution of drinking water wells and that significant loading of nitrate continues as a result of agricultural fertilizer practices (Carle, S.F., et al., June 2006).

34. Groundwater pollution from nitrate severely impacts public drinking water supplies in the Central Coast Region. A Department of Water Resources (DWR, 2003) survey of groundwater quality data collected between 1994 and 2000 from 711 public supply wells in the Central Coast Region found that 17 percent of the wells (121 wells) detected a constituent at concentrations above one or more California Department of Public Health (CDPH) drinking water standards or primary maximum contaminant levels (MCLs). Nitrate caused the most frequent MCL exceedances (45 mg/L nitrate as nitrate or 10 mg/L nitrate as nitrogen), with approximately 9 percent of the wells (64 wells) exceeding the drinking water standard for nitrate. According to data reported by the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment Program (GAMA) GeoTracker website (<http://www.waterboards.ca.gov/gama/>), recent impacts to public supply wells are greatest in portions of the Salinas Valley (up to 20 percent of wells exceeding MCLs) and Santa Maria (approximately 17 percent) groundwater basins. In the Gilroy-Hollister Groundwater Basin, 12.5 percent of the public supply wells exceed MCLs (data obtained using the GeoTracker DPH Public Supply Well Search Tool for nitrate for wells located in the Gilroy-Hollister groundwater basin. The well data includes Department of Public Health data for well sampling information ranging from 2006 until 2009). CDPH identified over half of the drinking water supply wells as vulnerable to discharges from agricultural-related activities in that basin. This information is readily tracked and evaluated because data are collected on a regular frequency, made publicly available, and public drinking water supplies are regulated by CDPH as required by California law.
35. Groundwater pollution from nitrate severely impacts shallow domestic wells in the Central Coast Region resulting in unsafe drinking water in rural communities. Domestic wells (wells supplying one to several households) are typically drilled in relatively shallow groundwater, and as a result exhibit higher nitrate concentrations than deeper public supply wells. Water quality monitoring of domestic wells is not generally required and water quality information is not readily available; however, based on the available data, the number of domestic wells that exceed the nitrate drinking water standard is likely in the range of hundreds or thousands. Private domestic well water quality is not regulated and rural residents are likely drinking water from these impaired sources without treatment and without knowing the quality of their drinking water.
36. In the northern Salinas Valley, 25 percent of 352 wells sampled (88 wells) had concentrations above the nitrate drinking water standard. In other portions of the Salinas Valley, up to approximately 50 percent of the wells surveyed had

concentrations above the nitrate drinking water standard, with average concentrations nearly double the drinking water standard and the highest concentration of nitrate approximately nine times the drinking water standard (Monterey County Water Resources Agency [MCWRA], 1995). Nitrate exceedances in the Gilroy-Hollister and Pajaro groundwater basins reflect similar severe impairment, as reported by local water agencies/districts for those basins (SCVWD, 2001; SWRCB, 2005; San Benito County Water District, 2007; Kennedy/Jenks Consultants, 2008).

37. Local county and water district reports indicate that in the Pajaro River watershed, the highest recent nitrate concentration (over 650 mg/L nitrate, more than 14 times the drinking water standard) occurred in shallow wells in the eastern San Juan subbasin under intense agricultural production. High values of nitrate concentration in groundwater (greater than 500 mg/L nitrate) have also been reported in the Llagas subbasin and the lower Pajaro coastal aquifer.
38. The costs of groundwater pollution and impacts to beneficial uses caused by irrigated agriculture are transferred to the public. Public drinking water systems expend millions of dollars in treatment and replacement costs and private well owners must invest in expensive treatment options or find new sources. Rural communities, those least able to buy alternative water sources, have few options to replace the contaminated water in their homes. This Order addresses groundwater pollution to ensure protection of beneficial uses and public health.
39. Excessive concentrations of nitrate or nitrite in drinking water are hazardous to human health, especially for infants and pregnant women. The United States Environmental Protection Agency (USEPA) established a nitrate drinking water standard of 45 mg/L nitrate as nitrate (10 mg/L nitrate as nitrogen). While acute health effects from excessive nitrate levels in drinking water are primarily limited to infants (methemoglobinemia or "blue baby syndrome"), research evidence suggests there may be adverse health effects (i.e., increased risk of non-Hodgkin's, diabetes, Parkinson's disease, alzheimers, endocrine disruption, cancer of the organs) among adults as a result of long-term consumption exposure to nitrate (Sohn, E., 2009; Pelley, J., 2003; Weyer, P., et. al., 2001, Ward, M.H., et. al., 1996).
40. Nitrogen compounds are known to cause cancer. University of Iowa research found that up to 20 percent of ingested nitrate is transformed in the body to nitrite, which can then undergo transformation in the stomach, colon, and bladder to form N-nitroso compounds that are known to cause cancer in a variety of organs in more than 40 animal species, including primates (Weyer, P., et. al., 2001).
41. In many cases, whole communities that rely on groundwater for drinking water are threatened due to nitrate pollution, including the community of San Jerardo and

other rural communities in the Salinas Valley. Local agencies and consumers have reported impacts to human health resulting from nitrate contaminated groundwater likely due to agricultural land uses, and spent significant financial resources to ensure proper drinking water treatment and reliable sources of safe drinking water for the long-term (CCRWQCB, 2009).

42. Current strategies for addressing nitrate in groundwater to achieve levels protective of human health typically include avoidance (abandoning impacted wells or re-drilling to a deeper zone), groundwater treatment to remove nitrate (i.e., dilution using blending, ion exchange, reverse osmosis, biological denitrification, and distillation), or developing additional water supplies (i.e., percolation ponds, surface water pipelines, reservoirs) to dilute nitrate-impacted sources (Lewandowski, A.M., May 2008; Washington State Department of Health, 2005).
43. The costs to treat and clean up existing nitrate pollution to achieve levels that are protective of human health are very expensive to water users (e.g., farmers, municipalities, domestic well users). Research indicates that the cost to remove nitrate from groundwater can range from hundreds of thousands to millions of dollars annually for individual municipal or domestic wells (Burge and Halden, 1999; Lewandowski, May 2008). Wellhead treatment on a region-wide scale is estimated to cost billions of dollars. Similarly, the cost to actively clean up nitrate in groundwater on a region wide scale would also cost billions of dollars, and would be logistically difficult. If the nitrate loading due to agricultural activities is not significantly reduced, these costs are likely to increase significantly.
44. Many public water supply systems are required to provide well-head treatment or blending of drinking water sources, at significant cost, to treat nitrate before delivery to the drinking water consumer due to elevated concentrations of nitrate in groundwater. The community of San Jerardo (rural housing cooperative of primarily low-income farmworker families with approximately 250 residents) initially installed well-head treatment to treat groundwater contaminated with nitrate and other chemicals at significant cost, with on-going monthly treatment costs of approximately \$17,000. Monterey County public health officials determined that the community of San Jerardo requires a new drinking water well to ensure safe drinking water quality protective of public health at an approximate cost of more than \$4 million. The City of Morro Bay uses drinking water supplies from Morro and Chorro groundwater basins. Study results indicate that agricultural activities in these areas, predominantly over-application of fertilizer, have impacted drinking water supplies resulting in nitrate concentrations more than four times the drinking water standard (Cleath and Associates, 2007). The City of Morro Bay must blend or provide well-head treatment to keep nitrate concentrations at levels safe for drinking water at significant cost (City of Morro Bay, 2006). The City of Santa Maria public supply wells are also impacted by nitrate (in some areas nearly twice

the drinking water standard) and must also blend sources to provide safe drinking water (City of Santa Maria, 2008).

Impacts to Groundwater – Nitrate and Salts

45. Groundwater pollution due to salts is also one of the most significant and critical problems in the Central Coast Region. Agricultural activities are a significant cause of salt pollution (Monterey County Flood Control and Water Conservation District, 1990). Salt increases in irrigated agricultural coastal basins are primarily due to the following:
 - a. Seawater intrusion within the coastal basins (e.g., Salinas and Pajaro groundwater basins) caused primarily by excessive agricultural pumping (MCWRA, 2007).
 - b. Agricultural pumping/recycling of groundwater that concentrates salts in the aquifers.
 - c. Agricultural leaching of salts from the root zone.
 - d. The importation of salts into the basin from agricultural soil amendments and domestic/municipal wastewater discharges.
46. Based on the high proportion of groundwater extractions, agricultural pumping of groundwater contributes to saltwater intrusion into the Salinas and Pajaro groundwater basins, which is causing increasing portions of the groundwater basins to be unusable for agriculture and municipal supply (MCWRA, 2008 and Pajaro Valley Water Resource Agency, 2002).
47. Agricultural activities contribute significant loading of nitrates into groundwater from the following sources (Monterey County Flood Control and Water Conservation District, 1988):
 - a. Intensive fertilizer applications on permeable soils.
 - b. Liquid fertilizer hookups on well pump discharge lines lacking backflow prevention devices.
 - c. Groundwater wells that are screened through multiple aquifers, thereby acting as conduits for pollution transport into deeper groundwater.
 - d. Spills and/or uncontrolled wash water or runoff from fertilizer handling and storage operations.
48. Agricultural waste discharges contribute to pollution of groundwater basins most vulnerable to waste migration, including major portions of the Santa Maria, Salinas, and Gilroy-Hollister groundwater basins. However, any groundwater basin, including those that are confined (pressured), are susceptible to downward waste migration through improperly constructed, operated (e.g., fertigation or chemigation without backflow prevention), or abandoned wells. Additionally, land with

permeable soils and shallow groundwater are susceptible to downward waste migration. Such areas of groundwater vulnerability often overlap with important recharge areas that serve to replenish drinking water supplies.

49. Agricultural discharges of fertilizer are the main source of nitrate pollution to shallow groundwater based on nitrate loading studies conducted in the Llagas subbasin and the lower Salinas groundwater basin (Carle, S.F., et al., June 2006). In 2007, the California Department of Food and Agriculture (CDFA) reported that approximately 56 million pounds of nitrogen were purchased as fertilizer in Monterey County. A 1990 Monterey County study of nitrate sources leaching to soil and potentially groundwater in Santa Cruz and Monterey Counties indicated that irrigated agriculture contributes approximately 78 percent of the nitrate loading to groundwater in these areas (Monterey County Flood Control and Water Conservation District, November 1990).
50. A groundwater study in the Llagas subbasin indicates that nitrate pollution in groundwater is elevated in the shallow aquifer because it is highly vulnerable due to high recharge rates and rapid transport, and that the dominant source of nitrate is synthetic fertilizers. Groundwater age data in relation to nitrate concentration indicate that the rate of nitrate loading to the shallow aquifer is not yet decreasing in the areas sampled. In areas east of Gilroy, groundwater nitrate concentrations more than double the drinking water standard correspond to younger groundwater ages (less than seven years old and in some cases less than two years old), indicating that the nitrate pollution is due to recent nitrate loading and not legacy farming practices (Moran et al., 2005).
51. The University of California Center for Water Resources (WRC) developed the Nitrate Groundwater Pollution Hazard Index (Nitrate Hazard Index) in 1995. The Nitrate Hazard Index identifies agricultural fields with the highest vulnerability for nitrate pollution to groundwater, based on soil, crop, and irrigation practices. Based on the Nitrate Hazard Index, the following crop types present the greatest risk for nitrate loading to groundwater: Beet, Broccoli, Cabbage, Cauliflower, Celery, Chinese Cabbage (Napa), Collard, Endive, Kale, Leek, Lettuce, Mustard, Onion, Spinach, Strawberry, Pepper, and Parsley.

Impacts to Groundwater – Pesticides

52. The Department of Pesticide Regulation (DPR) has identified two Groundwater Protection Areas that are vulnerable to pesticide contamination in San Luis Obispo County (south of Arroyo Grande, west of Nipomo Mesa, and north of the Santa Maria River) and Monterey County (Salinas area).
53. Based on a 2007 DPR report, pesticide detections in groundwater are rare in the Central Coast region. Of 313 groundwater wells sampled in the Central Coast

region, six wells (1.9%) had pesticide detections in less than two samples (considered unverified detections).

54. A review of DPR data collected from 1984 – 2009 indicates that the three pesticides/pesticide degradates with the highest detection frequency in groundwater were chlorthal-dimethyl and degradates (total), TPA (2,3,5,6-tetrachloroterephthalic acid) and carbon disulfide. Compounds reported by DPR above a preliminary health goal (PHG) or drinking water standard include (by county): ethylene dibromide (2002), atrazine (1993), and dinoseb (1987) Monterey; heptachlor (1989), ethylene dibromide (1989) Santa Barbara; benzene (various dates 1994-2007), 1,2,4-trichlorobenzene (1991) Santa Cruz; ethylene dibromide (1994, 2008, 2009) San Luis Obispo; and 1,1,2,2-tetrachloroethane (1998) Santa Clara.
55. Results from pesticide analyses conducted as part of the Groundwater Ambient Monitoring and Assessment Program (GAMA) studies in the Central Coast region (Kulongoski, 2007; Mathany 2010) indicate a significant presence of pesticides in groundwater. GAMA achieved ultra-low detection levels of between 0.004 and 0.12 micrograms per liter (generally less than .01 micrograms per liter). Out of 54 wells sampled in groundwater basins in the south coast range study unit (bounded by the Santa Lucia and San Luis Ranges, and San Raphael Mountains to the north and east, and the Santa Ynez mountains to the south), 28 percent of the wells had 11 pesticides or pesticide degradates detected in groundwater samples, with the three most abundant detections being deethylatrazine (18.5 percent), atrazine (9.3 percent), and simazine (5.6 percent). Twenty-eight percent of 97 wells sampled in the Monterey Bay and Salinas Valley Basins had pesticide detections, including 18 percent for simazine, 11 percent for deethylatrazine, and 5 percent for atrazine. None of the pesticides detected as part of the GAMA program exceeded any drinking water standard or health-based threshold value.

Impacts to Surface Water

56. The 2010 Clean Water Act Section 303(d) List of Impaired Waterbodies for the Central Coast Region (2010 List of Impaired Waterbodies) identified surface water impairments for approximately 700 waterbodies related to a variety of pollutants (e.g. salts, nutrients, pesticides/toxicity, and sediment/turbidity). Sixty percent of the surface water listings identified agriculture as one of the potential sources of water quality impairment.
57. The impact from agricultural discharges on surface water quality is or has been monitored by various monitoring programs, including:
 - a. The Central Coast Water Board's Ambient Monitoring Program: Over the past 10 years, the Central Coast Ambient Monitoring Program (CCAMP) has

collected and analyzed water quality data to address 25 conventional water quality parameters from 185 sites across the Central Coast Region to assess surface water quality. To support analysis of conventional water quality data CCAMP has collected bioassessment data from 100 of the 185 sites, water toxicity data from 134 of the 185 sites, and sediment toxicity from 57 of the 185 sites. CCAMP data show widespread toxicity and pollution in agricultural areas.

- b. Cooperative Monitoring Program (CMP): Over the last five years, the CMP has focused on assessing agricultural water quality for the 2004 Agricultural Order, and collected and analyzed data for 15 to 20 parameters from 50 sites in multiple watersheds. CMP data show widespread toxicity and pollution in agricultural areas.

58. Data from CCAMP and CMP indicate that surface waterbodies are severely impacted in the lower Salinas and Santa Maria watersheds due to the intensive agricultural activity in these areas, and water quality in these areas are the most severely impaired in the Central Coast Region.

Impacts to Surface Water – Nutrients

59. Nitrate pollution in surface water is widespread in the Central Coast Region, with 46 waterbodies listed as impaired for this pollutant on the 2010 List of Impaired Waterbodies List. Seventy percent of these nitrate listings occur in the three major agricultural watersheds: Salinas area (16 waterbodies), Pajaro River (5 waterbodies) and Santa Maria River (12 waterbodies). Other significant nitrate listings fall in small drainages in areas of intensive agriculture or greenhouse activity along the south coast, including Arroyo Paredon, Franklin Creek, Bell Creek, Los Carneros and Glen Annie creeks (CCRWQCB, 2009a)
60. The California Department of Public Health (CDPH) drinking water standard is 10 mg/L nitrate as N. The drinking water standard is not intended to protect aquatic life and Water Board staff estimates that 1 mg/L nitrate is necessary to protect aquatic life beneficial uses from biostimulation based on an evaluation of CCAMP data (CCRWQCB, 2009b). Water Board staff used this criteria to evaluate surface water quality impairment to aquatic life beneficial uses in the 2010 Impaired Waterbodies List.
61. In a broadly scaled analysis of land uses, nitrate pollution is associated with row crop agriculture. In addition, discharge from even a single agricultural operation can result in adjacent creek concentrations exceeding the drinking water standard and the much lower limits necessary to protect aquatic life. Many heavily urbanized creeks show only slight impacts from nitrate, with most urban impact associated with wastewater discharges. (CCAMP, 2010a).

62. Agricultural discharges result in significant nitrate pollution in the major agricultural areas of the Central Coast Region (CCAMP, 2010a). More than sixty percent of all sites from CCAMP and CMP combined datasets have average nitrate concentrations that exceed the drinking water standard and limits necessary to protect aquatic life (CCAMP, 2010b). Ten percent of all sites have average nitrate concentrations that exceed the drinking water standard by five-fold or more. Some of the most seriously polluted waterbodies include the following:
- a. Tembladero Slough system (including Old Salinas River, Alisal Creek, Alisal Slough, Espinosa Slough, Gabilan Creek and Natividad Creek),
 - b. Pajaro River (including Llagas Creek, San Juan Creek, and Furlong Creek),
 - c. Lower Salinas River (including Quail Creek, Chualar Creek and Blanco Drain),
 - d. Lower Santa Maria River (including Orcutt-Soloman Creek, Green Valley Creek, and Bradley Channel),
 - e. Oso Flaco watershed (including Oso Flaco Lake, Oso Flaco Creek, and Little Oso Flaco Creek).
63. Dry season flows decreased over the last five years in some agricultural areas that have large amounts of tailwater runoff. Detailed flow analysis by the CMP showed that 18 of 27 sites in the lower Salinas and Santa Maria watersheds had statistically significant decreases in dry season flow over the first five years of the program. Some sites that show increasing concentrations of nitrate have coincident declining trends in flow, possibly due to reductions in tailwater (CCWQP, 2009a). CCAMP monitoring has detected declining flows at other sites elsewhere in the Region through the end of 2009 (CCAMP, 2010a), likely because of drought.
64. Some statistically significant changes in nitrate concentration are evident in CCAMP and CMP data. Several drainages are improving in water quality in the Santa Barbara area (such as Bell Creek, which supports agricultural activities) and on Pacheco Creek in the Pajaro watershed. However, in some of the most polluted waters (Old Salinas River, Orcutt Creek, Santa Maria River mouth), nitrate concentrations are getting worse (CCAMP, 2010a). In the lower Salinas and Santa Maria watersheds, flow volumes are declining at some sites (CCWQP, 2009a; CCAMP, 2010a).
65. Nitrate concentrations in Oso Flaco Lake exceed the levels that support aquatic life beneficial uses, threatening remaining populations of two endangered plants, marsh sandwort and Gambel's watercress. In 25 water samples taken from Oso Flaco Lake in 2000-2001 and 2007, levels of nitrate/nitrite (as N) averaged 30.5 mg/L with a minimum of 22.0 mg/L and a maximum of 37.1 mg/L (CCAMP, 2010a). Biostimulation in Oso Flaco Lake has caused the rapid and extreme growth of

common wetland species, which are now crowding out sensitive species that have not become similarly vigorous (United States Department of the Interior Fish and Wildlife Service, 2010).

66. Agricultural discharges result in un-ionized ammonia concentrations at levels that are toxic to salmonids at some sites in areas dominated by agricultural activity (USEPA, 1999). The waterbodies where these sites are located are on the 2010 List of Impaired Waterbodies due to un-ionized ammonia, particularly in the lower Salinas and Santa Maria river areas (CCRWQCB, 2009).

Impacts to Surface Water – Toxicity and Pesticides

67. The Basin Plan general objective for toxicity states the following: “All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal or aquatic life.” The Basin Plan general objective for pesticides states the following: “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.”
68. Based on CCAMP, CMP, and other monitoring data, multiple pesticides and herbicides have been detected in Central Coast surface waterbodies (identified below). The Basin Plan general objective for pesticides states that no individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses, and no increase in pesticide concentrations shall be found in bottom sediments or aquatic life. Many currently applied pesticides have not been tested for, and staff is only recently aware of data showing several relatively new fungicides (azoxystrobin, pyraclostrobin and boscalid) in fish tissue and sediment of lagoons in the Central Coast Region.¹ This is a violation of the Basin Plan general objective for pesticides. Additional monitoring for individual pesticides is needed to identify changes in pesticide loading and to identify concentrations of toxic and/or bioaccumulating substances not previously identified.

2,4-D	esfenvalerate	oryzalin
Alachlor	ethalfuralin	oxadiazon
Aldicarb	ethoprop	oxamyl
Atrazine	fenamiphos	oxyfluorfen

¹ “Watershed-scale Evaluation of Agricultural BMP Effectiveness in Protecting Critical Coastal Habitats: Final Report on the Status of Three Central California Estuaries” (Anderson et al, 2010).
<http://www.ccamp.org/ccamp/documents/EstuariesFinalReport022311.pdf>.

ATTACHMENT A.
 ORDER NO. R3-2012-0011
 CONDITIONAL WAIVER OF
 WASTE DISCHARGE REQUIREMENTS
 FOR DISCHARGES FROM IRRIGATED LANDS

azinphos-methyl		
Azoxystrobin	fenoxycarb	paraquat dichloride
Benefin	fenpropathrin	pendimethalin
bentazon, sodium salt	fipronil	permethrin
Bifenthrin		
Boscalid	glyphosate	phorate
Bromacil	hexazinone	phosmet
bromoxynil octanoate	hydramethylnon	prodiamine
butylate	imidacloprid	prometon
Carbaryl	lambda cyhalothrin	prometryn
Carbofuran	linuron	propanil
Chlorpyrifos	malathion	propargite
chlorthal-dimethyl	MCPA	propiconazole
cycloate	MCPA, dimethylamine salt	propoxur
Cyfluthrin	metalaxyl	propyzamide
		Pyriproxyfen
Cypermethrin	methidathion	pyraclostrobin
DDVP	methiocarb	S.S.S-tributyl phosphorotrithioate
Deltamethrin	methomyl	siduron
Diazinon	methyl isothiocyanate	simazine
Dicamba	methyl parathion	tebuthiuron
Dicofol	metolachlor	terbuthylazine
Dimethoate	metribuzin	tetrachlorvinphos
Disulfoton	molinate	thiobencarb
Diuron	naled	triallate
Endosulfan	napropamide	triclopyr
EPTC	norflurazon	trifluralin

69. Multiple studies, including some using Toxicity Identification Evaluations (TIEs), have shown that organophosphate pesticides and pyrethroid pesticides in Central Coast waters are likely causing toxicity to fish and invertebrate test organisms (CCAMP, 2010a, CCWQP, 2008a; CCWQP, 2009; CCWQP, 2010a; CCWQP, 2010d (in draft); Hunt et al., 2003, Anderson, et al. 2003; Anderson et al., 2006b. This is a violation of the Basin Plan general objective for toxicity.
70. Agricultural use rates of pesticides in the Central Coast Region and associated toxicity is among the highest in the State. In a statewide study of four agricultural areas conducted by the Department of Pesticide Regulation (DPR), the Salinas study area had the highest percent of surface water sites with pyrethroid pesticides detected (85 percent), the highest percent of sites that exceeded levels expected

to be toxic and lethal to aquatic life (42 percent), and the highest rate (by three-fold) of active ingredients applied (113 lbs/acre) (Starner, et al. 2006).

71. Agriculture-related toxicity studies conducted on the Central Coast since 1999 indicated that toxicity resulting from agricultural waste discharges of pesticides has caused declining aquatic insect and macroinvertebrate populations in Central Coast streams (Anderson et al., 2003; Anderson et al., 2006a; Anderson et al., 2006b; Anderson et al., 2010). This is a violation of the Basin Plan general objective for toxicity.
72. The breakdown products of organophosphate pesticides are more toxic to amphibians than are the products themselves (Sparling and Fellers, 2007).
73. The lower Salinas and Santa Maria areas have more overall water column invertebrate toxicity than other parts of the Central Coast Region, with much of the toxicity explained by elevated diazinon and chlorpyrifos concentrations (CCAMP, 2010a, CCWQP, 2008a; CCWQP, 2009; Hunt et al., 2003, Anderson, et al. 2003; Anderson et al., 2006a). Some agricultural drains have shown toxicity nearly every time the drains are sampled (CCAMP, 2010a).
74. Fish and sand crabs from the Salinas, Pajaro, and Santa Maria estuaries had detectable levels of currently applied fungicides, herbicides, and legacy pesticides like DDT based on a recently completed study of these central coast lagoons Anderson et al. (2010). Multiple samples from the Santa Maria Estuary, the most impacted of the three estuaries, also contained chlorpyrifos, diazinon, and malathion (organophosphate pesticides) and bifenthrin and cyfluthrin (pyrethroid pesticides). Department of Public Health human consumption guideline levels for these pesticides in fish tissue are not available. This is the first study in this Region documenting these currently applied pesticides in fish tissue. The Basin Plan requires that "there shall be no increase in pesticide concentrations found in bottom sediments or **aquatic life** (emphasis added)".
75. The National Oceanic Atmospheric Administration National Marine Fisheries Service (NMFS) issued a Biological Opinion that concluded that US EPA's registration of pesticides containing chlorpyrifos, diazinon, and malathion is likely to jeopardize the continued existence of 27 endangered and threatened Pacific salmonids and is likely to destroy or adversely modify designated critical habitat for 25 threatened and endangered salmonids because of adverse effects on salmonid prey and water quality in freshwater rearing, spawning, migration, and foraging areas (NMFS, 2008)
76. Three court-ordered injunctions impose limitations on pesticide use (including chlorpyrifos, diazinon, and malathion) within certain proximity of waterbodies to protect endangered species (DPR, 2010).

77. Creek bottom sediments are most consistently toxic in the lower Salinas and Santa Maria watersheds, areas dominated by intensive agricultural activity. Seventy percent of sites sampled for sediment in the Central Coast region have been toxic at least once (although sites selected for sediment toxicity sampling typically represent higher risk areas) (CCAMP, 2010a).
78. A CMP follow-up study on sediment toxicity (CCWQP, 2010d, in draft) showed pyrethroid pesticides to be the most prevalent and severe source of toxicity to sediments. Santa Maria area sites averaged 7.5 toxic units (TUs) from pyrethroid pesticides and 1.3 TUs from chlorpyrifos. One TU is sufficient to kill 50% of the test organisms in a toxicity test). All Santa Maria area sites were toxic to test organisms. Second highest pesticide levels were found in Salinas tributaries and the Salinas Reclamation canal, averaging 5.4 TUs pyrethroids and 0.8 TUs chlorpyrifos. Organochlorine pesticides were present, but not at levels sufficient to cause toxicity.
79. Peer-reviewed research has also shown pyrethroid pesticides are a major source of sediment toxicity in agricultural areas of the Central Coast Region (Ng et al., 2008; Anderson et al., 2006a, Phillips et al., 2006; Starmer et al., 2006).
80. Agricultural sources of metals are particulate emissions, irrigation water, pesticides, biosolids, animal manure, and fertilizer applied directly to the soil (Chang et al, 2004). Metals, including arsenic, boron, cadmium, copper, lead, nickel, and zinc are common active ingredients in many pesticides (Fishel, 2008; Nesheim, 2002; Holmgren, 1998; Reigert and Roberts, 1999). Metals can be present in subsurface drainage discharge and may be associated with sediment in tailwater discharge. Some phosphate fertilizers contain cadmium, which can lead to an increase in the concentration of cadmium in soil. Past studies have found soils containing high concentrations of cadmium and lead in major vegetable production areas of the Salinas Valley (Chang et al, 2004; Page et al, 1987; USEPA, 1978; Jelinek and Braude, 1978).
81. The Basin Plan contains the following general objective for Phenols, 0.1 mg/L or 100 µg/L. Phenols are components or breakdown products of a number of pesticide formulations, including 2,4 D, MCPA, carbaryl, propoxur, carbofuran, and fenthion (Crespin, et al., 2001, Agrawal, et al., 1999). Phenolic compounds can cause odor and taste problems in fish tissue, some are directly toxic to aquatic life, and some are gaining increasing notice as endocrine disruptors (e.g., bisphenol A and nonylphenol). The original water quality standards were developed in response to concerns about odor and taste and direct toxicity.
82. One phenolic compound of known concern in Central Coast waters is nonylphenol. Agricultural sources of nonylphenol and the related nonylphenol

ethoxylates include pesticide products as "inert" ingredients and as adjuvants added by the pesticide user. Adjuvant ingredients are not reported in California's Pesticide Use Database. Adjuvants enhance a chemical's effect. Nonylphenol and related compounds are used as surfactants to make the pesticide product more potent and effective (Cserhati, 1995). Nonylphenol and its ethoxylates are acutely toxic to a wide variety of animals, including aquatic invertebrates and fish. In some cases, the nonylphenol is more toxic to aquatic species than the pesticide itself (National Research Council of Canada, 1982). Concern exists about these adverse effects of nonylphenol and its ethoxylates increases because these compounds also bioaccumulate in algae, mussels, shrimp, fish, and birds (Ahel et al, 1993; Ekelund (1990).

83. The San Luis Obispo Science and Ecosystem Alliance (SLOSEA) at California Polytechnic State University has found nonylphenol in elevated concentrations in fish tissue and has linked the occurrence to gonadal abnormalities and liver damage in fish in Morro Bay and other Central Coast locations. The Basin Plan standard of 100 µg/L for phenols is relatively protective for direct toxicity of nonylphenol to rainbow trout, which have an LC50 (lethal concentration impacting 50% of test organisms) of 194 µg/L. However, this limit is not protective for endocrine disruption purposes, which for rainbow trout is estimated at an EC50 (estrogenic concentration impacting 50% of test organisms) of 14.14 µg/L (Lech, 1996). Regardless of the limitations of the Basin Plan standard, it is important to assess this chemical in areas that are heavily influenced by agricultural activity.

Impacts to Surface Water – Turbidity and Temperature

84. Turbidity is a cloudy condition in water due to suspended silt or organic matter. Waters that exceed 25 nephelometric turbidity units (NTUs) can reduce feeding ability in trout (Sigler et al., 1984). Elevated turbidity during the dry season is an important measure of discharge across bare soil, and thus can serve as an indicator of systems with heavy irrigation runoff to surface waters.
85. The Basin Plan requires that "Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses" (CCRWQCB, 1994).
86. Most CCAMP sites outside of agricultural areas have a median turbidity level less than 5 NTUs (CCAMP, 2010a). Many sampling sites that include significant agricultural discharge have turbidity levels that exceed 100 NTUs as a median value (CCAMP, 2010a).
87. Agricultural discharges cause and contribute to sustained turbidity throughout the dry season at many sampling sites dominated by agricultural activities. Resulting turbidity greatly exceeds levels that impact the ability of salmonids to feed. Many

of these sites are located in the lower Santa Maria and Salinas-Tembladero watersheds. The CMP detected some increasing trends in turbidity on the main stem of the Salinas River (CCRWQCB, 2009a; CCAMP, 2010a; CCWQP, 2009a).

88. Agricultural discharges and vegetation removal along riparian areas cause and contribute to water temperatures that exceed levels that are necessary to support salmonids at some sites in areas dominated by agricultural activity. Several of these sites are in major river corridors that provide rearing and/or migration habitat for salmonids. A good example of this is Orcutt Creek (CCAMP, 2010a), where upstream shaded areas are cooler than downstream exposed areas, in spite of lower upstream flows. Tailwater discharge and removal of riparian vegetation in downstream areas cause temperatures to rise above levels safe for trout. Several locations impacted by temperature are in major river corridors that provide rearing and/or migration habitat for salmonids. These include the Salinas, Santa Maria, and Santa Ynez rivers (CCAMP, 2010a).
89. Biological sampling shows that benthic biota are impaired in the lower Salinas and Santa Maria watersheds, and also shows that several measures of habitat quality, such as in-stream substrate and canopy cover, are poor compared to the upper watersheds and to other high quality streams in the Central Coast Region (CCWQP, 2009b; CCWQP, 2009c, CCWQP, 2009d; CCWQP, 2009e; CCAMP, 2010b)
90. Agricultural land use practices, such as removal of vegetation and stream channelization, and discharges from agricultural fields, can cause the deposition of fine sediment and sand over stream bottom substrate (Waters, 1995). This problem is especially prevalent in areas dominated by agricultural activity (lower Salinas and Santa Maria rivers) (CCWQP, 2009b; CCWQP, 2009c, CCWQP, 2009d; CCWQP, 2009e; CCAMP, 2010b). This deposition of fine sediment and sand in streams causes major degradation of aquatic life beneficial uses by eliminating pools and by clogging gravel where fish eggs, larvae, and benthic invertebrates that serve as a food source typically live (CCAMP, 2010b; Waters, 1995). Effective erosion control and sediment control management practices include but are not limited to cover crops, filter strips, and furrow alignment to reduce runoff quantity and velocity, hold fine particles in place, and increase filtration to minimize the impacts to water quality (USEPA, 1991).
91. Orchards, vineyards, and row crops have the greatest erosion rates in irrigated agriculture, especially those that are managed with bare soil between tree or vine rows (ANR, 2006). A vegetative filter strip offers one way to control erosion rates and discharge of sediment rather than letting it be carried off site in drainage water. A vegetative filter strip is an area of vegetation that is planted intentionally to help remove sediment and other pollutants from runoff water (Dillaha et al., 1989) Vegetative filter strips intercept surface water runoff and trap as much as 75 to 100

percent of the water's sediment. They capture nutrients in runoff, both through plant uptake through adsorption to soil particles. They promote degradation and transformation of pollutants into less-toxic forms, and they remove over 60% of certain pathogens from the runoff. (ANR, 2006).

Impacts to the Marine Environment

92. The marine environment in the Central Coast Region is impacted by runoff from irrigated agriculture and other sources. Legacy pesticides have impacted the marine environment and are still found in sediment and tissue at levels of concern today (CCLEAN, 2007; Miller et al., 2007; Dugan, 2005, BPTCP, 1998). Currently applied pesticides are persistent in the aquatic environment, but initial testing has not found them in offshore areas of Monterey Bay (CCAMP, 2010b).
93. Two Marine Protected Areas (MPAs), Elkhorn Slough and Moro Cojo Slough, are heavily impacted by agricultural chemicals and activities in the vicinity. The Elkhorn Slough and Moro Cojo Slough MPAs are at very high to extremely high risk for additional degradation of beneficial uses. Other MPAs that are relatively near shore in agricultural areas are at medium risk for degradation of beneficial uses; these include the South Santa Ynez River MPA, and the two Monterey Bay MPAs. Other MPAs that are not near agricultural areas are at medium to low risk from agricultural discharges (CCAMP, 2010b).
94. Nitrate loading from the Pajaro and Salinas Rivers to Monterey Bay has been found to be a potential driver of plankton blooms during certain times of year. Research shows a clear onshore to offshore gradient in nitrate load influence from rivers, and also shows overall increasing trends in loading from rivers, whereas nitrate loading from upwelling shows no trends (Lane, 2009; Lane et al., in review). Using infrared remote sensing, Monterey Bay Aquarium Research Institute researchers have documented bloom initiation immediately following "first flush" events just offshore Moss Landing and Pajaro River discharges, that then evolved into very large red tides that killed many sea birds (Ryan, 2009; Jessup et al., 2009). These bloom initiation events were documented in 2007 and 2008.

Impacts to Aquatic Habitat and Riparian and Wetland Areas

95. Riparian and wetland areas play an important role in protecting several of the beneficial uses designated in the Basin Plan. Agricultural activities have degraded, and threaten to degrade, these beneficial uses related to aquatic habitat, which include, but are not limited to:
 - a. Ground Water Recharge;
 - b. Fresh Water Replenishment;
 - c. Warm Fresh Water Habitat;

- d. Cold Fresh Water Habitat;
 - e. Inland Saline Water Habitat;
 - f. Estuarine Habitat;
 - g. Marine Habitat;
 - h. Wildlife Habitat;
 - i. Preservation of Biological Habitats of Special Significance;
 - j. Rare, Threatened or Endangered Species;
 - k. Migration of Aquatic Organisms;
 - l. Spawning, Reproduction and/or Early Development;
 - m. Areas of Special Biological Significance;
96. The Basin Plan contains requirements to protect aquatic habitat, including, but not limited to, Chapter 2, Section II Water Quality Objectives to Protect Beneficial Uses, and Chapter 5, Page V-13, V.G. Erosion and Sedimentation: A filter strip of appropriate width, and consisting of undisturbed soil and riparian vegetation or its equivalent, shall be maintained, wherever possible, between significant land disturbance activities and watercourses, lakes, bays, estuaries, marshes, and other water bodies. For construction activities, minimum width of the filter strip shall be thirty feet, wherever possible.
97. Riparian and wetland areas play an important role in achieving several water quality objectives established to protect specific beneficial uses. These include, but are not limited to, those water quality objectives related to natural receiving water temperature, dissolved oxygen, suspended sediment load, settleable material concentrations, chemical constituents, and turbidity.
98. The 2004 Agricultural Order required protection of beneficial uses including aquatic and wildlife habitat. This Order includes that requirement to achieve protection of aquatic life beneficial uses and to address water quality degradation that has occurred, in part, as a result of encroachment by agricultural land uses on riparian and wetland areas.
99. In particular, seasonal and daily water temperatures are strongly influenced by the amount of solar radiation reaching the stream surface, which is influenced by riparian vegetation (Naiman, 1992; Pierce's Disease/Riparian Habitat Workgroup (PDRHW), 2000.). Removal of vegetative canopy along surface waters threatens maintenance of temperature water quality objectives, which in turn negatively affects dissolved oxygen related water quality objectives, which in turn negatively affects the food web (PDRHW, 2000).
100. Riparian and wetland areas function to retain and recycle nutrients (National Research Council (NRC), 2002; Fisher and Acreman, 2004), thereby reducing nutrient loading directly to surface water or groundwater. Riparian and wetland areas trap and filter sediment and other wastes contained in agricultural runoff

(NRC, 2002; Flosi et al., 1998; PDRHW, 2000; Palone and Todd, 1998), and reduce turbidity (USEPA, 2009). Riparian and wetland areas temper physical hydrologic functions, protecting aquatic habitat by dissipating stream energy and temporarily allowing the storage of floodwaters (Palone and Todd, 1998), and by maintaining surface water flow during dry periods (California Department of Water Resources, 2003). Riparian and wetland areas regulate water temperature and dissolved oxygen, which must be maintained within healthy ranges to protect aquatic life (PDRHW, 2000). In the absence of human alteration, riparian areas stabilize banks and supply woody debris (NRC 2002), having a positive influence on channel complexity and in-stream habitat features for fish and other aquatic organisms (California Department of Fish and Game 2003).

101. Riparian areas are critical to the quality of in-stream habitat. Riparian vegetation provides woody debris, shade, food, nutrients and habitat important for fish, amphibians and aquatic insects (California Department of Fish and Game 2003). Riparian areas help to sustain broadly based food webs that help support a diverse assemblage of wildlife (NRC, 2002). More than 225 species of birds, mammals, reptiles, and amphibians depend on California's riparian habitats (Riparian Habitat Joint Venture, 2004).
102. Riparian vegetation provides important temperature regulation for instream resources. In shaded corridors of the Central Coast region, temperatures typically stay under 20 degrees Celsius or 68 degrees F (within optimum temperature ranges for salmonids), but can rapidly increase above 20 degrees Celsius when vegetation is removed. Orcutt Creek in the lower Santa Maria watershed is an example where upstream shaded areas remain cooler than downstream exposed areas, in spite of lower upstream flows (CCAMP, 2010a).
103. Land management and conservation agencies describe three vegetated zones within a riparian buffer that can provide water quality protection (NRCS, 2006; Welsch, 1991, Tjaden and Weber). These zones are described below:
 - a. Zone 1 – The goal for this zone is to control temperature and turbidity discharges by establishing a mix of trees and shrubs that provide shade and streambank stability. A mix of native woody species that vary from large tree species as they mature to understory trees and shrubs will provide canopy cover and shading next to the water.
 - b. Zone 2 – The goal for this zone is to establish a mix of trees and shrubs that will absorb and treat waterborne nutrients and other pollutants and allow water to infiltrate into the soil.
 - c. Zone 3 – The goal for this zone is to act as a transitional zone between cropland and zones 1 and 2, serving to slow flows, disperse flows out into more diffuse, sheet flow, and promote sediment deposition. The use of stiff multi-stemmed grasses and forbs are preferred and will help disperse concentrated flows.

104. CCAMP and CMP bioassessment data show that streams in areas of heavy agricultural use are typically in poor condition with respect to benthic community health and that habitat in these areas is often poorly shaded, lacking woody vegetation, and heavily dominated by fine sediment. Heavily sedimented stream bottoms can result from the immediate discharge of sediment from nearby fields, the loss of stable, vegetated stream bank habitat, the channelization of streams and consequent loss of floodplain, and from upstream sources.
105. Up to approximately 43 percent of the federally threatened and endangered species rely directly or indirectly on wetlands for their survival (United States Environmental Protection Agency, 2008). Of all the states, California has the greatest number of at-risk animal species (15) and, by far, the greatest number of at-risk plant species (104) occurring within isolated wetlands (Comer et al., 2005).
106. California has lost an estimated 91 percent of its historic wetland acreage, the highest loss rate of any state. Similarly, California has lost between 85 and 98 percent of its historic riparian areas (State Water Resources Control Board, 2008). Landowners and operators of agricultural operations historically removed riparian and wetland areas to plant cultivated crops (Braatne et al., 1996; Riparian Habitat Joint Venture, 2004).
107. The California Wetlands Conservation Policy (Executive Order W-59-93), also known as "the No Net Loss Policy," adopted by Governor Wilson in 1993, established the State's intent to develop and adopt a policy framework and strategy to protect California's unique wetland ecosystems. One of the goals of this policy is to ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship and respect for private property.
108. Real and/or perceived incompatible demands between food safety and environmental protection are a major issue in the Central Coast Region. Technical Assistance Providers have reported that growers have removed vegetated management practices intended to protect water quality (in some cases, after receiving substantial public funds to install vegetated management practices).
109. According to a spring 2007 survey by the Resource Conservation District of Monterey County (RCDMC), 19 percent of 181 respondents said that their buyers or auditors had suggested they remove non-crop vegetation from their ranches to prevent pollution from pathogens such as the O157:H7 bacteria. In response to pressures by auditors and/or buyers, approximately 15 percent of all growers surveyed indicated that they had removed or discontinued use of previously adopted management practices used for water quality protection. Grassed waterways, filter or buffer strips, and trees or shrubs were among the management

practices removed (RCDMC, 2007). According to a follow-up spring 2009 survey by RCDMC, growers are being told by their auditors and/or buyers that wetland or riparian plants are a risk to food safety (RCDMC, 2009). To assist in the co-management of water quality protection and food safety, the RCDMC has developed a handbook of agricultural conservation practices, photos, and descriptions with food safety considerations (RCDMC, 2009).

110. The Food Safety Modernization Act (FSMA) was signed into law on January 4, 2011 giving the U.S Food and Drug Administration (FDA) a mandate to pursue a farm to table system that is based on science and addresses food safety hazards. The law requires FDA to apply sound science to any requirements that might impact wildlife and wildlife habitat on and near farms, and take into consideration conservation and environmental practice standards and policies.
111. Riparian vegetation and vegetated buffer zones are critically important to prevent the transport of sediment and bacteria, which may include the downstream transport of O157:H7 bacteria. Tate et al. (2006) tested vegetated buffers on cattle grazing lands and found that they are a very effective way to reduce inputs of waterborne E. coli into surface waters. Data indicates that the major source of O157:H7 bacteria are cattle, not wildlife (RCDMC, 2006). In many agricultural areas of the Central Coast Region, cattle operations are located upstream of irrigated agricultural fields. Therefore, the removal of riparian and wetland vegetation and their buffer zones increases the transport of pathogens such as O157:H7 and the risk of food contamination. The removal of riparian and wetland vegetation for food safety purposes is not warranted, is not supported by the literature, and may increase the risk of food contamination.
112. Agriculture near surface waterbodies can lead to removal or reduction of riparian vegetation and the impairment of its ecological functions (ANR, 2007). Once riparian vegetation is removed, it no longer serves to shade water, provide food for aquatic organisms, maintain stream banks, provide a source of large woody debris, or slow or filter runoff to streams. The result is degraded water quality and fish habitat (ANR, 2007). For these reasons, maintenance of riparian vegetation is a critical element of any type of land use (ANR, 2007).
113. Buffer strips are areas of vegetation left beside a stream or lake to protect against land use impacts (ANR, 2007). Whether or not harvesting is permitted within the buffer strip, well-designed and managed buffers can contribute significantly to the maintenance of aquatic and riparian habitat and the control of pollution. Riparian buffer strips protect aquatic and riparian plants and animals from upland sources of pollution by trapping or filtering sediments, nutrients, and chemicals from forestry, agricultural and residential activities. (ANR, 2007).

114. Vegetated riparian areas provide greater environmental value than unvegetated floodplains or cropped fields. Riparian forests provide as much as 40 times the water storage of a cropped field and 15 times that of grass turf (Palone and Todd, 1998). Agricultural floodplains are approximately 80 to 150 percent more erodible than riparian forest floodplains (Micheli et al., 2004) and riparian forest floodplains serve a valuable function by trapping sediment from agricultural fields (National Resource Council, 2002; Flosi and others, 1998; PDRHW 2000; Palone and Todd 1998).
115. Riparian and wetland areas are an effective tool in improving agricultural land management. Wide riparian areas act as buffers to debris that may wash onto fields during floods, thereby offsetting damage to agricultural fields and improving water quality (Flosi et al., 1998; PDRHW, 2000).
116. Exotic plant species exclude native riparian and wetland vegetation by out-competing native species for habitat. Additionally, exotic plants do not support the same diversity of wildlife native to riparian forests, often use large amounts of water, and can exist as monocultural stands of grass. Grass habitat is very different from the complex habitat structure provided by a diversity of riparian trees and shrubs, and results in habitat changes that affect the aquatic based food web (California Department of Fish and Game, 2003).

MANAGEMENT PRACTICE IMPLEMENTATION

117. Commercial agriculture is an intensive use of land. Relatively sophisticated agronomic and engineering approaches are available and necessary to minimize the discharge of waste from irrigated lands, including sediment, nutrients, and pesticides that impact water quality and beneficial uses of waters of the State. Traditionally, conservation practices available to Dischargers were developed for irrigation efficiency or for erosion control, and not necessarily for water quality protection. To achieve water quality protection and improvement, Dischargers are responsible for selecting and effectively implementing management strategies to resolve priority water quality problems associated with the specific operation and receiving water, utilize proper management practice design and maintenance, and implement effectiveness monitoring.
118. The Central Coast Water Board recognizes efforts to maximize water quality improvement using innovative and effective local or regional treatment strategies and it is the Central Coast Water Board's intent to provide flexibility in the implementation of this Order to encourage discharger participation in such efforts. The Central Coast Water Board will evaluate proposed local or regional treatment strategies based upon the anticipated effectiveness, time schedule for implementation, and proposed verification monitoring and reporting to measure progress towards water quality improvement and compliance with this Order.

119. The Central Coast Water Board recognizes efforts to improve recharge conditions and restore groundwater recharge function that have been lost due to urbanization and agricultural development. Managed aquifer recharge (MAR) has been successfully applied in areas of the Central Coast region, improving both water supply and water quality in the basin (Racz et al., in review). Water applied to percolation basins for MAR projects often have a high quality relative to that in underlying aquifers in many locations, despite exceedances of water quality standards. Recharging this water into the ground is important for improving and maintaining water quality in critical aquifers. In addition, considerable improvement in water quality can be achieved during percolation of surface water because of beneficial microbial and filtering processes that occur (Schmidt et al., in review). The Central Coast Water Board encourages MAR efforts, which will result in improving both water supply and water quality.
120. Dischargers are responsible for implementing management measures to achieve water quality improvement, including practices and projects at the scale of a single farm, or cooperatively among multiple farms in a watershed or sub watershed.
121. The Farm Plan is an effective tool to identify the management practices that have been or will be implemented to protect and improve water quality in compliance with this Order. 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. The development and implementation of Farm Plans was a requirement of the 2004 Agricultural Order. This Order renews the requirement to prepare the Farm Plan, and adds new conditions requiring each Discharger to verify the effective implementation of management practices focused on resolving water quality issues and for a subset of Dischargers considered a higher threat to water quality to conduct individual discharge monitoring to verify the effective implementation of management practices.
122. Dischargers can significantly reduce the potential impact from agricultural discharges by the effective implementation of management practices identified in Farm Plans focused on priority water quality issues related to the specific operation and watershed.
123. Individual on-farm water quality monitoring is critical to adaptively manage and effectively implement practices to protect water quality. The data and reporting will inform the Discharger, the Water Board, and the public regarding compliance with this Order, and increases the potential success in adapting management practices to address priority water quality issues. Dischargers participating in on-farm water quality monitoring have reported, in some cases, significant reduction or

elimination of their discharge of waste through effective and adaptive management practice implementation.

124. Agricultural discharges, especially surface irrigation runoff, have the potential to transport sediments and associated waste constituents that exceed water quality standards. Minimizing irrigation runoff is an effective way to minimize and/or eliminate agricultural discharges of waste to waters of the State.
125. Agricultural water quality research identifies the importance of minimizing the amount of water runoff coming from farms. Irrigation runoff occurs when the application rate of the irrigation system exceeds the infiltration rate of the soil due to numerous factors, including poor irrigation efficiency. The percent of applied water lost to runoff may start off low, and increase towards the end of longer irrigations, or with frequent irrigation where soil is saturated. Fields with soils susceptible to low infiltration rates may lose 5 percent to 30 percent or more of their applied water to runoff.
126. Applying fertilizer, soil amendments, or agricultural products directly through an irrigation system (fertigation) increases nitrate levels in irrigation water. Runoff from fertigations is likely to be extremely high in nitrate concentrations. Agricultural research conducted in the Pajaro Valley and Salinas Valley watersheds has identified nitrate values in agricultural tailwater and drainage ditches exceeding 100 mg/L nitrate as N in some cases (more than ten times the drinking water standard, and likely more than 100 times the level necessary to protect aquatic life) (Anderson, 2003).
127. Agricultural studies document the common over-application of fertilizers, and fertilizer and animal manure are the most dominant and widespread nitrate sources to groundwater (Harter, 2009; Kitchen, 2008; Lawrence Livermore National Lab GAMA Studies Llagas subbasin, 2005). Effective irrigation and nutrient management practices to reduce the concentration of nutrients in irrigation runoff, deep percolation, and stormwater include but are not limited to, irrigation efficiency to reduce runoff and deep percolation, nutrient budgeting to optimize fertilizer application and eliminate excessive nutrient applications, and techniques to trap nutrients between crop growing seasons and during intense periods of rainfall.
128. Agricultural studies and practices demonstrate that minimizing the production of polluted tailwater through irrigation efficiency and nutrient management practices and keeping runoff from leaving the farm is cost effective (Meals, 1994). Improving irrigation water application according to real time soil moisture data has resulted in some of the lowest concentrations of nutrients in percolating waters, confirming that irrigation efficiency is a key factor in reducing leaching of nutrients (United Water Conservation District, 2007).

129. Nitrate in water leaving subsurface drain ("tile") systems often exceeds drinking water standards and contributes to low-oxygen in marine environments. Denitrification, including the use of wood-chip bioreactor treatment systems, is an effective method of removing nitrate from soil water before it enters subsurface drains (Jaynes, et al., 2006; Starrett, 2009).
130. Agricultural land uses can disrupt the natural vegetation-soil cycles and biota diversity, keeping the soil surface unprotected and vulnerable to erosive forces (wind and rain), which increases the amount of sediments dispersed and transported from agricultural lands into surface water (USEPA, 2003).
131. Agricultural mechanization and tillage of soil and land for bed preparation, crop maintenance and pest control, can destroy the soil structure and degrade the land, which increases the amount of sediment and associated waste constituents discharged into surface water (Fawcett, 2005).
132. Managing uncropped areas, minimizing and protecting bare soil and heavy use areas and unpaved road from concentrated flows of water, and implementing practices to detain or filter sediment and runoff before it leaves agricultural operations are effective ways to reduce soil erosion and capture sediment before it enters waterways, where it can cause water quality impairments downstream (ANR Publications 8124 and 8071).
133. Stormwater runoff from irrigated lands often results in significant erosion and the discharge of sediment, nutrients, and pesticides. Effective erosion control and sediment control management practices include but are not limited to cover crops, filter strips, and furrow alignment to reduce runoff quantity and velocity, hold fine particles in place, and increase filtration to minimize the impacts to water quality (USEPA, 1991). Crops grown using impervious plastic can be particularly problematic as they often result in significantly increased irrigation runoff volumes and velocities in agricultural furrows and ditches that may drain to waters of the State.
134. Education and technical assistance is an important tool in advancing the implementation of new effective management practices that protect and enhance water quality.
135. There are many technical resources available to the agricultural industry to assist farmers in pollution prevention and addressing water quality problems associated with irrigated agriculture. The United States Department of Agriculture - Natural Resources Conservation Service (NRCS), Resource Conservation Districts (RCD), and University of California Cooperative Extension (UCCE) provide non-regulatory technical services and research to promote conservation and address natural resource problems. There are also many non-profit agricultural and commodity-

specific organizations and initiatives that promote sustainable agriculture, and provide education and technical support. Private consulting companies and individual professionals working in the field of environmental and engineering sciences, investigations, site remediation and corrective actions, treatment system design, sampling, and reporting are available to assist the agricultural industry in water quality improvement and achieving compliance with this Order.

136. The State and Regional Water Boards have made over \$600 Million of public grant funds available to address agricultural water quality issues from approximately 2000 – 2011. These funds came from Bond Propositions 13, 40, 50, and 84, and addressed a myriad of water quality projects, watershed protection, and nonpoint source pollution control throughout California. In addition, the State Water Board, in coordination with USEPA, also allocates approximately \$4.5 Million per year in 319(h) program funding to address nonpoint source pollution. The amount of Water Board public grant funds recently awarded in the Central Coast Region for agricultural related projects is more than \$55 Million.

AGRICULTURAL REGULATORY PROGRAM IMPLEMENTATION

137. The Central Coast Water Board is maximizing regulatory effectiveness by identifying and prioritizing actions that address the most significant agricultural water quality problems in the Central Coast Region, including nitrate in groundwater from discharge related to excess fertilizer application, the discharge of waste in agricultural tailwater, surface water toxicity resulting from pesticides, surface water nutrients from fertilizer, increasing salinity, sediment discharge, and degradation of aquatic habitat.
138. The Central Coast Water Board is addressing priority agricultural water quality issues, on a watershed basis in coordination with other Water Board programs and efforts, focused in the most intensive agricultural areas of the region including the Salinas, Pajaro, and Santa Maria watersheds. In addition, Central Coast Water Board staff will assess and track progress towards specific measures of water quality improvement, and adapt to the feedback the tracking provides.
139. The Central Coast Water Board will evaluate compliance of individual Dischargers with the terms and conditions of this Order based on enrollment information, threat of water quality impairment, content of technical reports (including Annual Compliance Document, Farm Plan, Irrigation and Nutrient Management Plan, and Water Quality Buffer Plan), prioritized inspections, and water quality monitoring data. Failure to comply with enrollment requirements may result in enforcement action for individual landowners and operators. In addition to the determination of noncompliance and water quality impairment, the Central Coast Water Board will enforce the conditions of this Order in a manner similar to enforcement of WDRs

and consistent with the State Water Board's Enforcement Policy, focusing on the highest priority water quality issues and most severely impaired waters.

140. The Central Coast Water Board will consider the history of compliance and violations and progress made toward compliance and water quality improvement demonstrated by individual Dischargers when determining potential enforcement actions. In some cases, the Central Coast Water Board may terminate coverage under this Order and require the Discharger to submit a ROWD and comply with the Water Code pursuant to individual WDRs.

PART B. RELEVANT PLANS, POLICIES, AND REGULATIONS

Water Quality Control Plan

The *Water Quality Control Plan for the Central Coast Region* (Basin Plan) was adopted by the Central Coast Water Board in 1975 and is periodically revised. Tables 1A and 1B include a summary of Narrative and Numeric Water Quality Objectives. The Basin Plan is available by contacting the Central Coast Water Board at (805) 549-3147 or by visiting the Central Coast Water Board's website at: http://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/

Other Relevant Plans, Policies, and Regulations

State Water Resources Control Board, Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, October 1968.

State Water Resources Control Board, *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, June 1972.

State Water Resources Control Board, Resolution No. 74-43, *Water Quality Control Policy for the Enclosed Bays and Estuaries of California*, May 1974.

State Water Resources Control Board, Resolution No. 88-63, *Sources of Drinking Water Policy*, May 1988. Amended February 1, 2006.

State Water Resources Control Board, *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, May 2004.

State Water Resources Control Board, Resolution No. 2004-0063, *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*, December 13, 2004.

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State Water Resources Control Board, *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP)*, February 2005

"State Water Resources Control Board, Resolution No. 2008-0070, *Water Quality Control Plan for Enclosed Bays and Estuaries - Part 1 Sediment Quality*, August 25, 2009.

State Water Resources Control Board, *Water Quality Control Plan for Ocean Waters of California (CA Ocean Plan)*, September 2009.

State Water Resources Control Board, Resolution No. 2009-0011, *Recycled Water Policy*, May 20, 2010.

State Water Resources Control Board, *Water Quality Enforcement Policy*, May 20, 2010.

US EPA, *National Toxics Rule*, 40 CFR 131.36, 57 FR 60848, December 1992.

US EPA, *California Toxics Rule*, 40 CFR 131.38, 65 FR 31682, May 2000.

Table 1A. Narrative and Numeric Water Quality Objectives for Surface Water.

<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
<p>TOXICITY</p>	
<p>Toxicity <i>(BPGO, III-4)</i></p> <p><i>Narrative Objective:</i> All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life.</p> <p><i>Indicators of Narrative Objective:</i> Chemical concentrations in excess of toxic levels for aquatic life including but not limited to the following: Chlorpyrifos 0.025 ug/L Diazinon 0.14 ug/L</p> <p><i>(Source: Sipmann and Finlayson 2000)</i></p>	<p>All Surface Waters</p>
<p>TOXICANTS</p>	
<p>Nutrients</p>	
<p>Ammonia, Total (N) <i>(BPSO, Table 3.3)</i></p> <p>>30 mg/L NH₄-N</p>	<p>AGR</p>
<p>Ammonia, Un-ionized <i>(BPGO, III-4)</i></p> <p>0.025 mg/L NH₃ as N</p>	<p>All Surface Waters</p>
<p>Nitrate <i>(a. BPSO, Table 3-2</i> <i>b. BPSO, Table 3-3)</i></p> <p>a. 10 mg/L NO₃-N b. >30 mg/L NO₃-N</p>	<p>a. MUN b. AGR</p>
<p>Organics</p>	
<p>Chemical Constituents <i>(BPSO, III-5 and</i> <i>Table 3-2)</i></p> <p>Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15,</p>	<p>MUN</p>

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<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
<p>Section 64435, Tables 2 and 3 as listed in Table 3-2.</p>	
<p>Chemical Constituents <i>(BPSO, III-5 and Table 3-3)</i></p> <p>Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. Interpretation of adverse effect shall be as derived from the University of California Agricultural Extension Service guidelines provided in Table 3-3.</p> <p>In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4</p>	<p>AGR</p>
<p>Chemical Constituents <i>(BPSO, III-10, Table 3-5, Table 3-6)</i></p> <p>Waters shall not contain concentrations of chemical constituents known to be deleterious to fish or wildlife in excess of the limits listed in Table 3-5 or Table 3-6.</p>	<p>COLD, WARM, MAR</p>
<p>Oil and Grease <i>(BPGO, III-3)</i></p> <p><i>Narrative Objective:</i> Waters shall not contain oils, greases, waxes, or other similar materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.</p>	<p>All Surface Waters</p>
<p>Organic Chemicals <i>(BPSO, III-5 and Table 3-1)</i></p> <p>All inland surface waters, enclosed bays, and estuaries shall not contain concentrations of organic chemicals in excess of the limiting concentrations set forth in California Code of Regulations, Title 22, Chapter 15, Article 5.5, Section 64444.5, Table 5 and listed in Table 3-1.</p>	<p>MUN</p>
<p>Other Organics <i>(BPGO, III-3)</i></p> <p>Phenol <i>(BPSO, III-5)</i></p> <p>Waters shall not contain organic substances in concentrations greater than the following:</p>	<p>All Surface Waters</p>

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<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
Methylene Blue Activated Substances < 0.2 mg/L Phenols < 0.1 mg/L Phenol (MUN) ≤ 1.0 µg/L PCBs < 0.3 µg/L Phthalate Esters < 0.002 µg/L	
<p>Metals</p>	
<p>Chromium <i>(BOSP, III-12)</i></p> <p>≤ 0.01 mg/L</p>	<p>SHELL</p>
<p>Cadmium <i>(BPGO, III-11)</i></p> <p>≤ 0.03 mg/L in hard water or ≤ 0.004 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO₃).</p>	<p>COLD, WARM</p>
<p>Chromium <i>(BPGO, III-11)</i></p> <p>≤ 0.05 mg/L</p>	<p>COLD, WARM</p>
<p>Copper <i>(BPGO, III-11)</i></p> <p>≤ 0.03 mg/L in hard water or ≤ 0.01 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO₃).</p>	<p>COLD, WARM</p>
<p>Lead <i>(BPGO, III-11)</i></p> <p>≤ 0.03 mg/L</p>	<p>COLD, WARM</p>
<p>Mercury <i>(BPGO, III-11)</i></p> <p>≤ 0.0002 mg/L</p>	<p>COLD, WARM</p>
<p>Nickel <i>(BPGO, III-11)</i></p> <p>≤ 0.4 mg/L in hard water or</p>	<p>COLD, WARM</p>

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 FOR DISCHARGES FROM IRRIGATED LANDS

<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
<p>≤0.1 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO₃).</p>	
<p>Zinc <i>(BPGO, III-11)</i></p> <p>≤ 0.2 mg/L in hard water or ≤0.004 mg/L in soft water (Hard water is defined as water exceeding 100 mg/L CaCO₃).</p>	<p>COLD, WARM</p>
<p align="center">CONVENTIONALS</p>	
<p>Biostimulatory Substances <i>(BPGO, III-3)</i></p> <p><i>Narrative Objective:</i> 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.</p> <p><i>Indicators of Narrative Objective:</i> Indicators of biostimulation include chlorophyll-a, dissolved oxygen, phosphorous, and nitrate.</p> <p><i>(Source: Central Coast Water Board. April 2009. Central Coast Ambient Monitoring Program Technical Paper: Interpreting Narrative Objectives for Biostimulatory Substances Using the Technical Approach for Developing California Nutrient Numeric Endpoints)</i></p>	<p>All Surface Waters</p>
<p>Boron <i>(BPSO, III-13)</i></p> <p>Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 0.2 – 0.5 mg/L.</p>	<p>Specific Surface Waters</p>
<p>Chloride <i>(BPSO, III-13)</i></p> <p>Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 150-1400 mg/L.</p>	<p>Specific Surface Waters</p>
<p>Color <i>(BPGO, III-3)</i></p> <p>Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. Coloration attributable to materials of waste origin shall not be greater than 15 units or 10 percent above natural background color, whichever is</p>	<p>All Surface Waters</p>

ATTACHMENT A.
 ORDER NO. R3-2012-0011
 CONDITIONAL WAIVER OF
 WASTE DISCHARGE REQUIREMENTS
 FOR DISCHARGES FROM IRRIGATED LANDS

<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
greater.	
<p>Conductivity <i>(BPSO, III-8, Table 3-3)</i> >3.0 mmho/cm</p>	AGR
<p>Dissolved Oxygen (DO) <i>(BPGO, III-2)</i> Mean annual DO \geq 7.0 mg/L Minimum DO \geq 5.0 mg/L</p>	All Ocean Waters
<p>Dissolved Oxygen <i>(BPGO, III-4)</i> For waters not mentioned by a specific beneficial use: DO \geq 5.0 mg/L DO Median values \geq 85 percent saturation</p>	All Surface Waters
<p>Dissolved Oxygen <i>(BPSO, III-10)</i> DO \geq 7.0 mg/L</p>	COLD, SPWN
<p>Dissolved Oxygen <i>(BPSO, III-10)</i> DO \geq 5.0 mg/L</p>	WARM
<p>Floating Material <i>(BPGO, III-3)</i> <i>Narrative Objective:</i> Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.</p>	All Surface Waters
<p>pH <i>(BPSO, III-10)</i> The pH value shall not be depressed below 7.0 nor above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters.</p>	COLD, WARM,
<p>pH <i>(BPSO, III-10)</i></p>	MAR

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<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
<p>The pH value shall not be depressed below 7.0 or raised above 8.5². Changes in normal ambient pH levels shall not exceed 0.2 units.</p>	
<p>pH <i>(BPSO, III-5)</i></p> <p>The pH value shall not be depressed below 6.5 nor above 8.3.</p>	<p>MUN, REC-1, REC-2, AGR</p>
<p>Settleable Material <i>(BPGO, III-3)</i></p> <p><i>Narrative Objective:</i> Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.</p>	<p>All Surface Waters</p>
<p>Sediment <i>(BPGO, III-3)</i></p> <p><i>Narrative Criteria:</i> The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.</p>	<p>All Surface Waters</p>
<p>Sodium <i>(BPSO, III-13)</i></p> <p>Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 20-250 mg/L.</p>	
<p>Sulfate <i>(BPSO, III-13)</i></p> <p>Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 10-700 mg/L.</p>	
<p>Suspended Material <i>(BPGO, III-3)</i></p> <p><i>Narrative Criteria:</i> Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.</p>	<p>All Surface Waters</p>
<p>Taste and Odor <i>(BPGO, III-3)</i></p>	<p>All Surface Waters</p>

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 CONDITIONAL WAIVER OF
 WASTE DISCHARGE REQUIREMENTS
 FOR DISCHARGES FROM IRRIGATED LANDS

<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
<p><i>Narrative Criteria:</i> Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.</p>	
<p>Temperature <i>(BPGO, III-3)</i></p> <p><i>Narrative Criteria:</i> Natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.</p>	<p align="center">All Surface Waters</p>
<p>Temperature <i>(BPGO, III-4)</i></p> <p><i>Narrative Objective:</i> Natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.</p> <p><i>a) Indicators of Narrative Objective for COLD Habitat:</i></p> <p>Coho December - April 48-54 °F 7-DAM³ 56-58 °F 1-DAM</p> <p>May – November 57-63 °F 7-DAM 68-70 °F 1-DAM</p> <p>Steelhead December - April 55-57 °F 7-DAM 56-58 °F 1-DAM</p> <p>May – November 56-63 °F 7-DAM 70-73 °F 1-DAM</p> <p><i>(Source: Hicks 2000)</i></p> <p><i>b) Indicators of Narrative Objective for WARM Habitat:</i></p> <p>Stickleback Upper optimal limit = 75 °F (This temperature is also the low end of the upper</p>	<p align="center">All Surface Waters</p> <p align="center">a) COLD</p> <p align="center">b) WARM</p>

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<p align="center">SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")</p>	<p align="center">BENEFICIAL USE</p>
<p>lethal limit for steelhead) <i>(Source: Moyle 1976)</i></p> <p>Note: 7-DAM refers to the rolling arithmetic average of seven consecutive daily maximum temperatures. 1-DAM refers to the highest daily maximum temperature.</p>	
<p>Temperature <i>(BPSO, III-10)</i></p> <p>At no time or place shall the temperature be increased by more than 5°F above natural receiving water temperature.</p>	<p>COLD, WARM</p>
<p>Total Dissolved Solids (TDS) <i>(BPSO, III-13)</i></p> <p>Waterbody specific. Median values, shown in Table 3-7 for surface waters. Sub-Basins Objectives range from 10-250 mg/L.</p>	
<p>Turbidity <i>(BPGO, III-3)</i></p> <p><i>Narrative Objective:</i> Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.</p> <p><i>Indicators of Narrative Objective:</i> Turbidity greater than 25 NTU's causes reduction in juvenile salmonid growth due to interference with their ability to find food.</p> <p><i>(Source: Central Coast Water Board. April 2009. Clean Water Act Sections 305(b) and 303(d) Integrated Report for the Central Coast Region; Sigler et al. 1984. Effects of chronic turbidity on density and growth of steelheads and coho salmon. Transactions of the American Fisheries Society 113:142-150)</i></p>	<p>All Surface Waters</p>
<p>PATHOGEN INDICATORS</p>	
<p>Fecal Coliform <i>(BOSP, III-5)</i></p> <p>Log mean 200 MPN/100mL. Max 400 MPN/100mL.</p>	<p>REC-1</p>
<p>Fecal Coliform <i>(BOSP, III-10)</i></p>	<p>REC-2</p>

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SURFACE WATER QUALITY OBJECTIVE <i>(Source of WQO-Page in Basin Plan)</i> (Objectives are numeric unless labeled "narrative")	BENEFICIAL USE
Log mean 2000 MPN/100mL. Max 4000 MPN/100mL.	
<i>E. coli</i> <i>(USEPA)</i> Max 235 MPN/100 mL	REC-1
Total Coliform <i>(BOSP, III-12)</i> Median \leq 70/100 MPN/100mL Max 230 MPN/100 mL	SHELL

Table 1B. Narrative and Numeric Water Quality Objectives for Groundwater.

GROUNDWATER QUALITY OBJECTIVE <i>(Source of WQO-Page in BP)</i> (Objectives are numeric unless labeled "narrative")	BENEFICIAL USE
TOXICANTS	
Chemical Constituents <i>(BPSO, III-14)</i> Groundwaters shall not contain concentrations of chemical constituents in excess of federal or state drinking water standards.	MUN
Chemical Constituents <i>(BPSO, III-14 and Tables 3-3 and 3-4)</i> Groundwaters shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use. Interpretation of adverse effect shall be as derived from the University of California Agricultural Extension Service guidelines provided in Table 3-3. In addition, water used for irrigation and livestock watering shall not exceed the concentrations for those chemicals listed in Table 3-4.	AGR
Total Nitrogen <i>(BPSO, III-15 and Table 3-8)</i> Groundwater Basin Objectives for Median values range from	Specific Groundwater Basins

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GROUNDWATER QUALITY OBJECTIVE <i>(Source of WQO-Page in BP)</i> (Objectives are numeric unless labeled "narrative")	BENEFICIAL USE
1-10 mg/L as N.	
CONVENTIONALS	
Total Dissolved Solids (TDS) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 100-1500 mg/L TDS.	Specific Groundwater Basins
Chloride (Cl) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 20-430 mg/L Cl.	Specific Groundwater Basins
Sulfate (SO₄) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 10-1025 mg/L SO ₄ .	Specific Groundwater Basins
Boron (B) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 0.1-2.8 mg/L B.	Specific Groundwater Basins
Sodium (Na) <i>(BPSO, III-15)</i> Groundwater Basin Objectives for median values range from 10-730 mg/L.	Specific Groundwater Basins

Acronyms:

- BP = Basin Plan or Water Quality Control Plan for the Central Coast Region
- BPGO = Basin Plan General Objective
- BPSO = Basin Plan Specific Objective related to a designated beneficial use
- TMDL = Specific Objective related to an adopted Total Maximum Daily Load
- WDR = Waste Discharge Requirements
- SB = State Board established guideline
- USEPA = US Environmental Protection Agency
- CCAMP = Central Coast Ambient Monitoring Program
- SWAMP = Surface Water Ambient Monitoring Program

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MCL = Maximum Contaminant Level, California drinking water standards set forth in California Code of Regulations, Title 22.

NTU = Nephelometric Turbidity Unit

mg/L = milligram/Liter

MPN = Most Probable Number

PART C. DEFINITIONS

The following definitions apply to Order No. R3-2012-0011 and MRP Order No. R3-2012-0011-01, MRP Order No. R3-2012-0011-02, and MRP Order No. R3-2012-0011-03 as related to discharges of waste from irrigated lands. The terms are arranged in alphabetical order. All other terms not explicitly defined for the purposes of this Order and Monitoring and Reporting Program shall have the same definitions as prescribed by California Water Code Division 7 or are explained within the Order or the MRP documents.

1. Anti-degradation. The State Water Board established a policy to maintain high quality waters of the State - Resolution 68-16 "*Statement of Policy with Respect to Maintaining High Quality Waters in California*." Resolution 68-16 requires existing high quality water to be maintained until it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of water, and will not result in water quality less than that prescribed in the policies. Regional Water Boards are required to ensure compliance with Resolution 68-16. The Central Coast Water Board must require discharges to be subject to *best practicable treatment or control* of the discharge necessary to avoid pollution or nuisance and to maintain the highest water quality consistent with maximum benefit to the people of the State. Resolution 68-16 has been approved by the USEPA to be consistent with the federal anti-degradation policy.
2. Aquatic Habitat. The physical, chemical, and biological components and functions of streams and lakes, including riparian areas and wetlands and their buffer zones.
3. Aquifer. A geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs. (see also uppermost aquifer).
4. Back flow Prevention. Back flow prevention devices are installed at the well or pump to prevent contamination of groundwater or surface water when fertilizers, pesticides, fumigants, or other chemicals are applied through an irrigation system. Back flow prevention devices used to comply with this Order must be those approved by USEPA, DPR, CDPH, or the local public health or water agency.

5. Basin Plan. The Basin Plan is the Central Coast's Region Water Quality Control Plan. The Basin Plan describes how the quality of the surface and groundwater in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The Basin Plan includes beneficial uses, water quality objectives, and a program of implementation.
6. Beneficial Uses. The Basin Plan establishes the beneficial uses to be protected in the Central Coast Region. Beneficial uses for surface water and groundwater are divided into twenty-four standard categories identified below. The following beneficial uses have been identified in waterbodies within the Region:
 - agricultural supply (AGR)
 - aquaculture (AQUA)
 - areas of special biological significance (ASBS)
 - cold freshwater habitat (COLD)
 - commercial and sportfishing (COMM)
 - estuarine habitat (EST)
 - freshwater replenishment (FRESH)
 - groundwater recharge (GWR)
 - hydropower generation (POW)
 - industrial process supply (PRO)
 - industrial service supply (IND)
 - inland saline water habitat (SAL)
 - marine habitat (MAR)
 - municipal and domestic supply (MUN)
 - migration of aquatic organisms (MIGR)
 - navigation (NAV)
 - non-contact recreation (REC2)
 - preservation of biological habitats of special significance (BIOL)
 - rare, threatened or endangered species (RARE)
 - shellfish harvesting (SHELL)
 - spawning, reproduction, and development (SPWN)
 - warm freshwater habitat (WARM)
 - water contact recreation (REC1)
 - wildlife habitat (WILD)
7. Chemigation. The application of pesticides, fertilizers, fumigants or other chemicals through an irrigation system.
8. Commercial. Irrigated lands producing commercial crops are those operations that have one or more of the following characteristics:
 - a. The landowner or operator holds a current Operator Identification Number/Permit Number for pesticide use reporting;
 - b. The crop is sold, including but not limited to (1) an industry cooperative, (2) harvest crew/company, or (3) a direct marketing location, such as Certified Farmers Markets;
 - c. The federal Department of Treasury Internal Revenue Service form 1040 Schedule F Profit or Loss from Farming is used to file federal taxes.
9. Concentration. The relative amount of a substance mixed with another substance. An example is 5 parts per million (ppm) of nitrogen in water or 5 mg/L.

10. Crop Types with High Potential to Discharge Nitrogen to Groundwater. Based on the Groundwater Pollution Nitrate Hazard Index developed by the University of California Division of Agriculture and Natural Resources (UCANR), the following crop types present the greatest risk for nitrogen loading to groundwater: beet, broccoli, cabbage, cauliflower, celery, Chinese cabbage (napa), collard, endive, kale, leek, lettuce (leaf and head), mustard, onion (dry and green), spinach, strawberry, pepper (fruiting), and parsley.
11. Discharge. A release of a waste to waters of the State, either directly to surface waters or through percolation to groundwater. Wastes from irrigated agriculture include but are not limited to earthen materials (soil, silt, sand, clay, and rock), inorganic materials (metals, plastics, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.) and organic materials such as pesticides.
12. Discharger. The owner and operator of irrigated lands that discharge or have 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. See also Responsible Party.
13. Discharges of Waste from Irrigated Lands. Surface water and groundwater discharges, such as irrigation return flows, tailwater, drainage water, subsurface drainage generated by irrigating crop land or by installing and operating drainage systems to lower the water table below irrigated lands (tile drains), stormwater runoff flowing from irrigated lands, stormwater runoff conveyed in channels or canals resulting from the discharge from irrigated lands, runoff resulting from frost control, and/or operational spills containing waste.
14. Ephemeral Stream. A channel that holds water during and immediately after rain events.
15. Erosion. The wearing away of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building, or logging.
16. Erosion and Sediment Control Practices. Practices used to prevent and reduce the amount of soil and sediment entering surface water in order to protect or improve water quality.
17. Environmental Justice. Providing equal and fair access to a healthy environment for communities of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies; and proactive efforts to take into account existing

environmental injustices and to protect from new or additional environmental hazards and inequitable environmental burdens;

18. Exceedance. A reading using a field instrument or a detection by a California State-certified analytical laboratory where the detected result is above an applicable water quality standard for the parameter or constituent. For toxicity tests, an exceedance is a result that is statistically lower than the control sample test result.
19. Farm or Ranch. For the purposes of this Order, a tract of land where commercial crops are produced or normally would have been produced. Individual farms/ranches typically have a similar farm/ranch manager, operator or landowner(s) and are categorized by farm size, primary output(s), and/or geographic location.
20. Farm Water Quality Management Plan (Farm Plan). The Farm Plan is a document that contains, at a minimum, identification of management practices that are being or will be implemented to protect and improve water quality by addressing irrigation management, pesticide management, nutrient management, salinity management, sediment and erosion control, and aquatic habitat protection. Farm Plans also contain a schedule for the effective implementation of management practices and verification monitoring to determine compliance with the requirements of this Order (schedules, milestones, effluent limits, etc.). Consistent with the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands adopted by the Board in July 2004 (Order No. R3-2004-0117), this Order requires Dischargers to develop and implement a Farm Plan focused on the priority water quality issues associated with a specific operation and the priority water quality issues associated with a specific watershed or subwatershed.
21. Fertigation. The application of fertilizers through an irrigation system.
22. Freshwater Habitat. Uses of water that support cold or warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
23. Groundwater. The supply of water found beneath the earth's surface, usually in aquifers, which supply wells and springs.
24. Groundwater Protection Practices. Management practices designed to reduce or eliminate transport of nitrogen, pesticides, and other waste constituents into groundwater.
25. Integrated Pest Management Program (IPM). A pest management strategy that focuses on long-term prevention or suppression of pest problems through a

combination of techniques such as encouraging biological control, use of resistant varieties, or adoption of alternative cultivating, pruning, or fertilizing practices or modification of habitat to make it incompatible with pest development. Pesticides are used only when careful field monitoring indicates they are needed according to pre-established guidelines or treatment thresholds.

26. Intermittent Stream. A stream that holds water during wet portions of the year.
27. Irrigated Lands. For the purpose of this Order, irrigated lands include lands where water is applied for the purpose of producing commercial crops and include, but are not limited to, land planted to row, vineyard, field and tree crops as well as 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 Waste Discharge Requirements (WDRs). Lands that are planted to commercial crops that are not yet marketable, such as vineyards and tree crops, must also obtain coverage under this Order.
28. Irrigation. Applying water to land areas to supply the water and nutrient needs of plants.
29. Irrigation Management Practices. Management practices designed to improve irrigation efficiency and reduce the amount of irrigation return flow or tailwater, and associated degradation or pollution of surface and groundwater caused by discharges of waste associated with irrigated lands.
30. Irrigation Runoff or Return Flow. Surface and subsurface water that leaves the field following application of irrigation water. See also, Tailwater.
31. Irrigation System Distribution Uniformity. Irrigation System Distribution Uniformity is a measure of how uniformly irrigation water is applied to the cropping area, expressed as a percentage. A nonuniform distribution can deprive portions of the crop of sufficient irrigation water, and can result in the excessive irrigation leading to water-logging, plant injury, salinization, irrigation runoff and transport of chemicals to surface water and groundwater.
32. Landowner. An individual or entity who has legal ownership of a parcel(s) of land. For the purposes of this Order, the landowner is responsible for ensuring compliance with this Order and for any discharge of waste occurring on or from the property.
33. Limited Resource Farmer. A Limited Resource Farmer is defined by the U.S. Dept. of Agriculture (USDA) as:

- a. A person with direct or indirect gross farm sales not more than the current indexed value (determined by USDA) in each of the previous 2 years, and
- b. A person who has a total household income at or below the national poverty level for a family of four, or less than 50 percent of county median household income in each of the previous 2 years.

The USDA's Limited Resource Farmer "Self Determination Tool" is available at:
<http://www.lrftool.sc.egov.usda.gov/DeterminationTool.aspx?fyYear=2012>

34. Load. The concentration or mass of a substance discharged over a given amount of time, for example 10 mg/day or 5 Kg/day, respectively.
35. Monitoring. Sampling and analysis of receiving water quality conditions, discharge water quality, aquatic habitat conditions, effectiveness of management practices, and other factors that may affect water quality conditions to determine compliance with this Order or other regulatory requirements. Monitoring includes but is not limited to: surface water or groundwater sampling, on-farm water quality monitoring undertaken in connection with agricultural activities, monitoring to identify short and long-term trends in in-stream water quality or discharges from sites, inspections of operations, management practice implementation and effectiveness monitoring, maintenance of on-site records and management practice reporting.
36. Nitrate Hazard Index. In 1995, the University of California Center for Water Resources (WRC) developed the Nitrate Groundwater Pollution Hazard Index (Nitrate Hazard Index) (Wu, 2005). The purpose of the Nitrate Hazard Index is to identify agricultural fields with the highest vulnerability for nitrate pollution to groundwater, based on soil, crop, and irrigation practices. The hazard index number can range from 1 through 80 with the hazard increasing with increasing hazard index number. The WRC states that an index number greater than 20 indicates greater risk for nitrate pollution to groundwater and should receive careful attention.

[http://ucanr.org/sites/wrc/Programs/Water Quality/Nitrate Groundwater Pollution Hazard Index/](http://ucanr.org/sites/wrc/Programs/Water%20Quality/Nitrate%20Groundwater%20Pollution%20Hazard%20Index/)
37. Nitrate Loading Risk Factor. A measure of the relative risk of loading nitrate to groundwater based on the following criteria a) Nitrate Hazard Index Rating by Crop Type, b) Irrigation System Type, and c) Irrigation Water Nitrate Concentration.
38. Non-point Source Pollution (NPS). Diffuse pollution sources that are generally not subject to NPDES permitting. The wastes are generally carried off the land by runoff. Common non-point sources are activities associated with agriculture, timber harvest, certain mining, dams, and saltwater intrusion.

39. Non-Point Source Management Measures. To combat NPS pollution, the State Water Board NPS Program adopted management measures as goals for the reduction of polluted runoff generated from five major categories, including agriculture. Management measures address the following components for agriculture: Erosion and sediment control; facility wastewater and runoff from confined animal facilities; nutrient management; pesticide management; irrigation water management; grazing management, and groundwater protection.
40. Non-Point Source Management Practices. Methods or practices selected by entities managing land and water to achieve the most effective, practical means of preventing or reducing pollution from diffuse sources, such as wastes carried off the landscape via urban runoff, excessive hill, slope or streambed and bank erosion, etc. Management Practices include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. Management Practices can be applied before, during, and after pollution-causing activities to prevent, reduce, or eliminate the introduction of wastes into receiving waters.
41. Nutrient. Any substance assimilated by living things that promotes growth.
42. Nutrient Management Practices. Management practices designed to reduce the nutrient loss from agricultural lands, which occur through edge-of-field runoff or leaching from the root zone.
43. Operator. Person responsible for or otherwise directing farming operations in decisions that may result in a discharge of waste to surface water or groundwater, including, but not limited to, a farm/ranch manager, lessee or sub-lessee. The operator is responsible for ensuring compliance with this Order and for any discharge of waste occurring on or from the operation.
44. Operation. A distinct farming business, generally characterized by the form of business organization, such as a sole proprietorship, partnership, corporation, and/or cooperative. A farming operation may be associated with one to many individual farms/ranches.
45. Operational Spill. Irrigation water that is diverted from a source such as an irrigation well or river, but is discharged without being delivered to or used on an individual field.
46. Perennial Stream. A stream that holds water throughout the year.
47. Pesticide Management Practices. Management practices designed to reduce or eliminate pesticide runoff into surface water and groundwater.

48. Point Source. Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which wastes are or may be discharged.
49. Pollutant. The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water, including dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.
50. Public Water System. A system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following: (1) Any collection, treatment, storage, and distribution facilities under control of the operator of the system which are used primarily in connection with the system; (2) Any collection or pretreatment storage facilities not under, the control of the operator that are used primarily in connection, with the system; (3) Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.
51. Quality of the Water. The "chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use" as defined in the California Water Code Sec. 13050(g).
52. Receiving Waters. Surface waters or groundwater that receive or have the potential to receive discharges of waste from irrigated lands.
53. Requirements of Applicable Water Quality Control Plans. Water quality objectives, prohibitions, Total Maximum Daily Load (TMDL) Implementation Plans, or other requirements contained in the Basin Plan, as adopted by the Central Coast Water Board and approved according to applicable law.
54. Responsible Party. The owner and operator of irrigated lands that discharge or have 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. See also Discharger.
55. Riparian Area. Vegetation affected by the surface water or groundwater of adjacent perennial or intermittent streams, lakes or other waterbodies. Vegetation species are distinctly different from adjacent areas or are similar to adjacent areas

but exhibit more vigorous or robust growth forms indicative of increased soil moisture. Riparian areas may also include floodplains. Floodplains are critical areas for retaining floodwaters, allowing for sediment deposition and the natural movement of riparian areas, as well as space for colonization of new riparian and wetland vegetation necessary due to natural meandering. (Dall et. al. 1997, p.3)

56. Source of Drinking Water. Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan and/or as defined in SWRCB Resolution No. 88-63.
57. Stormwater. Stormwater runoff, snow melt runoff, and surface runoff and drainage, as defined in 40 CFR 122.26(b)(13).
58. Subsurface Drainage. Water generated by installing drainage systems to lower the water table below irrigated lands. The drainage can be generated by subsurface drainage systems, deep open drainage ditches or drainage wells.
59. Surface Runoff. Precipitation, snow melt, or irrigation water in excess of what can infiltrate the soil surface and be stored in small surface depressions; a major transporter of non-point source wastes in rivers, streams, and lakes.
60. Tailwater. Runoff of irrigation water from the lower end of an irrigated field. See also, Irrigation Runoff or Return Flow.
61. Tile Drains. Subsurface drainage which removes excess water from the soil profile, usually through a network of perforated tile tubes installed 2 to 4 feet below the soil surface. This lowers the water table to the depth of the tile over the course of several days. Drain tiles allow excess water to leave the field. Once the water table has been lowered to the elevation of the tiles, no more water flows through the tiles. The Central Coast Water Board anticipates evaluating longer timeframes necessary to address tile-drain discharges, for inclusion in a subsequent Agricultural Order.
62. Total Maximum Daily Load (TMDL). The condition of an impaired surface waterbody (on the List of Impaired Waterbodies) that limits the amount of pollution that can enter the waterbody without adversely affecting its beneficial uses, usually expressed as a concentration (e.g., mg/L) or mass (e.g., kg); TMDLs are proportionally allocated among dischargers to the impaired surface waterbody.
63. Total Nitrogen Applied. Total nitrogen applied includes nitrogen in any product, form or concentration) including, but not limited to, organic and inorganic fertilizers, slow release products, compost, compost teas, manure, extracts, nitrogen present in the soil, and nitrate in irrigation water; Reported in units of nitrogen per crop, per acre for each farm/ranch or nitrate loading risk unit;

64. Uppermost Aquifer. The geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer.
65. Waste. "Includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal" as defined in the California Water Code Sec. 13050(d). "Waste" includes irrigation return flows and drainage water from agricultural operations containing materials not present prior to use. Waste from irrigated agriculture includes *earthen materials* (such as soil, silt, sand, clay, rock), *inorganic materials* (such as metals, salts, boron, selenium, potassium, nitrogen, phosphorus), and *organic materials* such as pesticides.
66. Water Quality Buffer. A water quality protection zone surrounding perennial or intermittent channels, including adjacent wetlands (as defined by the Clean Water Act), with riparian vegetation and/or riparian functions that support beneficial uses and protect water quality.
67. Water Quality Control. The "regulation of any activity or factor which may affect the quality of the waters of the State and includes the prevention and correction of water pollution and nuisance" as defined in the California Water Code Sec. 13050(i).
68. Water Quality Criteria. Levels of water quality required under Sec. 303(c) of the Clean Water Act that are expected to render a body of water suitable for its designated uses. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes. The *California Toxics Rule* adopted by USEPA in April 2000, sets numeric Water Quality Criteria for non-ocean waters of California for a number of pollutants. See also, Water Quality Objectives.
69. Water Quality Objectives. "Limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specified area," as defined in Sec. 13050(h) of the California Water Code. Water Quality Objectives may be either numerical or narrative and serve as Water Quality Criteria for purposes of Section 303 of the Clean Water Act. Specific Water Quality Objectives relevant to this Order are identified in this Appendix A in Tables 1A and 1B.
70. Water Quality Standard. Provisions of State or Federal law that consist of the beneficial designated uses or uses of a waterbody, the numeric and narrative

ATTACHMENT A.
ORDER NO. R3-2012-0011
CONDITIONAL WAIVER OF
WASTE DISCHARGE REQUIREMENTS
FOR DISCHARGES FROM IRRIGATED LANDS

water quality criteria that are necessary to protect the use or uses of that particular waterbody, and an anti-degradation statement. Water quality standards includes water quality objectives in the Central Coast Water Board's Basin Plan, water quality criteria in the California Toxics Rule and National Toxics Rule adopted by USEPA, and/or water quality objectives in other applicable State Water Board plans and policies. For groundwater with the beneficial use of municipal or domestic water supply, the applicable drinking water standards are those established by the United States Environmental Protection Agency (USEPA) or California Department of Public Health (CDPH), whichever is more stringent. Under Sec. 303 of the Clean Water Act, each State is required to adopt water quality standards.

71. Waters of the State. "Any surface water or groundwater, including saline waters, within the boundaries of the State" as defined in the California Water Code Sec. 13050(e), including all waters within the boundaries of the State, whether private or public, in natural or artificial channels, and waters in an irrigation system.
72. Wetland. Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (40 CFR 230.3(t)).
73. Wildlife Habitat. Uses of water that support terrestrial or wetland ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

EXHIBIT 2

1 CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD

2 PANEL HEARING

3 SAN LUIS OBISPO, CALIFORNIA

4 MARCH 15, 2012

5

6

7

8

CONTINUATION OF THE

9

HEARING ON THE WAIVER OF WASTE DISCHARGE

10

REQUIREMENTS DISCHARGED FROM

11

IRRIGATED LANDS

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17

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19 ATKINSON-BAKER, INC.

20 COURT REPORTERS

21 www.depo.com

22 800-288-3376

23

24 REPORTED BY: DEBORAH L. HOLDEN, CSR NO. 8885

25 FILE NO.: A6028BE

1 of final recommendation before we actually consider what
2 to do.
3 But, Mr. Johnston, did you have anything at this
4 point? I thought maybe, or not, or wait --
5 MR. JOHNSTON: I gather you're aware,
6 Mr. Chairman, because it was shared with you, although
7 none of the other Board members, is I have worked with the
8 Executive Officer and counsel over the last week or two on
9 a couple of different pieces of language. And the
10 principal stuff in there is -- well, three different
11 things, really.
12 One of them deals with a coalition monitoring of
13 groundwater. And the other two deal with setting up a
14 little more defined process for third party groups to come
15 to make proposals to the Executive Officer and a technical
16 advisory committee to review and make recommendations on
17 the acceptability of those proposals.
18 And my thought on that language, frankly, is that
19 we, as a Board, should decide which of two roads we want
20 to go down. And one road is to work -- to look at the
21 stuff that Ag presented yesterday. And to take point by
22 point by point each of the policy issues on Staffs' con
23 slide. And each of the legal issues on that slide. And
24 resolve them, modify the Ag Order -- excuse me -- the Ag
25 Alternative that was proposed yesterday. And see if we

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1 can come up with something that we wish to adopt. And I
2 think if we're not interested in doing that and instead we
3 want to simply kick down the road to the Executive Officer
4 and a technical advisory committee the question of the
5 details of how third party alternatives would work, then I
6 would propose that language.
7 But I think, at least in the way I'm looking at
8 it, kind of the first step would be for us as a Board
9 to -- I guess polling ourselves or something to decide how
10 much interest there is in trying to work through what Ag
11 proposed and use it as a base. I want to come out with an
12 Order today no matter what. I don't --
13 MR. YOUNG: Right. The question you're posing is
14 for each of us to respond to are the changes Staff has
15 just given us in response to Tess Dunham's presentation
16 acceptable as a path to go down, or would you prefer that
17 we go back and revisit the cons and try to take each of
18 those and tweak the Ag Alternative to meet -- no.
19 MR. JOHNSTON: I wouldn't put the question quite
20 that way.
21 MR. YOUNG: Okay.
22 MR. JOHNSTON: I think the changes that Staff has
23 proposed sort of stand on their own. And most, if not
24 all, of them actually made sense to me. I think that the
25 followup question to that, though, is: Do we as a

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1 Board -- I think --
2 MR. YOUNG: Let's put those up, if we can, since
3 we're talking about, those cons.
4 MR. JOHNSTON: Put the cons up?
5 MR. YOUNG: Put the cons up so we've got
6 something to look at.
7 (Discussion held off the record.)
8 MR. JOHNSTON: I suspect -- I don't want to speak
9 for anyone else on this Board --
10 MR. YOUNG: Right.
11 MR. JOHNSTON: -- but I suspect that there would
12 be general consensus on the pros that are up on the slide
13 that we're looking at right now. That there certainly are
14 some advantages to the ideas however un-fleshed out they
15 are. And whatever failings they may have, either in
16 policy terms or in legal terms, that there are some
17 advantages to the pros on here and those ideas.
18 And I think that the question that we as a Board
19 face is -- I suspect there's general consensus on that on
20 this Board. That's just my sense from our -- from our
21 public discussion.
22 I think the question we as a Board face is:
23 What's the best way to capture those pros in an Order that
24 we can pass. And one alternative is to -- I'm not saying
25 this would involve rejecting the edits that Staff has

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1 proposed. But Staff has made a very clear recommendation
2 that we don't really go past those edits and use what Ag
3 presented as any sort of a framework for how third party
4 coalitions could be formed and participate and provide
5 some alternatives.
6 I think one alternative for us as a Board is to
7 say: Let's take that framework, let's --
8 Can you give me the next slide.
9 I take very seriously everything on that list. I
10 don't think that Staff is raising any of this to be
11 obstructive. They're all of the policy issues, which is
12 really everything except the last three points. I think
13 we need to seriously talk about it, I think we need to
14 decide as a Board issue by issue do we agree with Staff on
15 it? Does that require us, if we're going to use the Ag
16 Proposal as a framework to make changes in that proposal?
17 When we get to the last three, I think we need to
18 look at the legal questions, as well, and say what do we
19 need to do to change in that proposal if we're going to
20 use it as a framework to comply with the law in our Order.
21 That's one alternative. And it's certainly the more labor
22 intensive one. I want to go home tonight.
23 MR. BRIGGS: Mr. Chair.
24 MR. YOUNG: Yes.
25 MR. BRIGGS: To that point, may I say

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1 involving a technical advisory committee, and to set up --
2 which then makes a recommendation to the Executive
3 Officer, and then to set up a process where an Executive
4 Officer denial is appealable to the Board.
5 Do I need to read this whole thing?
6 MS. HUNTER: Yes.
7 MR. JOHNSTON: I can read it.
8 Did people get copies yet?
9 MR. YOUNG: Yes.
10 MR. JOHNSTON: All of what's in Condition 11,
11 while it's not bolded, it's all new language.
12 MR. YOUNG: Right.
13 MR. JOHNSTON: The entire condition is new. It
14 would renumber the Condition 11 that follows to
15 Condition 12 and everything down below it.
16 And it reads as follows: Dischargers may form
17 third party groups to develop and implement alternative
18 water quality management practices, i.e., group projects
19 or cooperative monitoring and reporting programs to comply
20 with this Order. At the discretion of the Executive
21 Officer, Dischargers that are a participant in a third
22 party group that implements Executive Officer approved
23 water quality improvements projects or Executive Officer
24 approved alternative monitoring and reporting programs may
25 be moved to a lower Tier. Example, Tier 3 to Tier 2, or

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1 Tier 2 to Tier 1, and/or provided alternative project
2 specific timelines and milestones.
3 To be subject to tier changes or alternative
4 timelines, projects will be evaluated for, among other
5 elements, project description. The description must
6 include identification of participant's methods and
7 schedule for implementation.
8 Purpose. Proposal must state desired outcome for
9 goals of the projects. Example, pollutants to be
10 addressed, the amount of pollutant load to be reduced,
11 water quality improvement expected.
12 Scale. Solutions must be scaled to address
13 impairment.
14 Chance of success. Projects must demonstrate a
15 reasonable chance of eliminating toxicity within the
16 permit term, five years, or reducing discharge of
17 nutrients to surface and groundwater, long-term solutions
18 and contingencies. Proposals must address what new
19 actions will be taken if the project does not meet goals
20 and how the project will be sustained through time.
21 Accountability. Proposals must set milestones
22 that indicate progress towards goals stated as above in
23 purpose.
24 Monitoring and reporting. Description of
25 monitoring and measuring methods and information to be

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1 provided to the Water Board. Monitoring points must be
2 representative but may not always be at the edge of farms
3 so long as monitoring result demonstrate water quality
4 improvement and the efficacy of a project.
5 In addition, monitoring must, one, characterize
6 and be representative of discharge to receiving water.
7 Two, demonstrate project effectiveness. Three, and verify
8 progress towards water quality improvement and waste water
9 production.
10 Project proposals will evaluated by a technical
11 advisory committee comprised of two researchers or
12 academics skilled in agricultural practices and/or water
13 quality, one farm advisor NRCS or RCD, one grower
14 representative, one environmental representative, one
15 environmental justice or environmental health
16 representative, and one regional Board Staff.
17 The TAC must have a minimum of five members to
18 evaluate project proposals and make recommendations to the
19 Executive Officer. The Executive Officer has discretion
20 to approve any project after receiving project evaluation
21 results and recommendations from the committee.
22 If the Executive Officer denies approval, the
23 third party group may seek review by the regional Board.
24 As stated in the NPS policy, management practice
25 implementation is not a substitute for compliance with

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1 water quality requirements. If the project is not
2 effective in achieving Water Quality Standards, additional
3 management practices by individual Dischargers or third
4 party groups will be necessary.
5 The point of this is to -- is to -- if we choose
6 not to use the Ag Proposal as a framework and give -- make
7 a set of decisions today on a detailed program to give a
8 framework within which such proposals can be brought to
9 the Board -- or excuse me -- can be brought to the
10 Executive Officer after evaluation by a technical advisory
11 committee -- and we know that the technical advisory
12 committee, back before this process became so polarized,
13 was a functional group that got some stuff done. And my
14 hope in proposing this is that it would provide some
15 balanced way to evaluate stuff, provide input to the
16 Executive Officer and to the Board as well stuff that's
17 appealed to the Board.
18 MR. YOUNG: I think it's a great proposal. I
19 think what you've done is taken what Staff has always said
20 was achievable as part of what they have been proposing,
21 and essentially put down in writing what it might look
22 like, and make that part of what we're going to
23 incorporate in the Order and the Monitoring Program.
24 So how much of this did you write?
25 MR. JOHNSTON: About half.

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HEARING MARCH 15, 2012

<p>1 involving a technical advisory committee, and to set up -- 2 which then makes a recommendation to the Executive 3 Officer, and then to set up a process where an Executive 4 Officer denial is appealable to the Board. 5 Do I need to read this whole thing? 6 MS. HUNTER: Yes. 7 MR. JOHNSTON: I can read it. 8 Did people get copies yet? 9 MR. YOUNG: Yes. 10 MR. JOHNSTON: All of what's in Condition 11, 11 while it's not bolded, it's all new language. 12 MR. YOUNG: Right. 13 MR. JOHNSTON: The entire condition is new. It 14 would renumber the Condition 11 that follows to 15 Condition 12 and everything down below it. 16 And it reads as follows: Dischargers may form 17 third party groups to develop and implement alternative 18 water quality management practices, i.e., group projects 19 or cooperative monitoring and reporting programs to comply 20 with this Order. At the discretion of the Executive 21 Officer, Dischargers that are a participant in a third 22 party group that implements Executive Officer approved 23 water quality improvements projects or Executive Officer 24 approved alternative monitoring and reporting programs may 25 be moved to a lower Tier. Example, Tier 3 to Tier 2, or</p> <p style="text-align: right;">Page 110</p>	<p>1 provided to the Water Board. Monitoring points must be 2 representative but may not always be at the edge of farms 3 so long as monitoring result demonstrate water quality 4 improvement and the efficacy of a project. 5 In addition, monitoring must, one, characterize 6 and be representative of discharge to receiving water. 7 Two, demonstrate project effectiveness. Three, and verify 8 progress towards water quality improvement and waste water 9 production. 10 Project proposals will evaluated by a technical 11 advisory committee comprised of two researchers or 12 academics skilled in agricultural practices and/or water 13 quality, one farm advisor NRCS or RCD, one grower 14 representative, one environmental representative, one 15 environmental justice or environmental health 16 representative, and one regional Board Staff. 17 The TAC must have a minimum of five members to 18 evaluate project proposals and make recommendations to the 19 Executive Officer. The Executive Officer has discretion 20 to approve any project after receiving project evaluation 21 results and recommendations from the committee. 22 If the Executive Officer denies approval, the 23 third party group may seek review by the regional Board. 24 As stated in the NPS policy, management practice 25 implementation is not a substitute for compliance with</p> <p style="text-align: right;">Page 112</p>
<p>1 Tier 2 to Tier 1, and/or provided alternative project 2 specific timelines and milestones. 3 To be subject to tier changes or alternative 4 timelines, projects will be evaluated for, among other 5 elements, project description. The description must 6 include identification of participant's methods and 7 schedule for implementation. 8 Purpose. Proposal must state desired outcome for 9 goals of the projects. Example, pollutants to be 10 addressed, the amount of pollutant load to be reduced, 11 water quality improvement expected. 12 Scale. Solutions must be scaled to address 13 impairment. 14 Chance of success. Projects must demonstrate a 15 reasonable chance of eliminating toxicity within the 16 permit term, five years, or reducing discharge of 17 nutrients to surface and groundwater, long-term solutions 18 and contingencies. Proposals must address what new 19 actions will be taken if the project does not meet goals 20 and how the project will be sustained through time. 21 Accountability. Proposals must set milestones 22 that indicate progress towards goals stated as above in 23 purpose. 24 Monitoring and reporting. Description of 25 monitoring and measuring methods and information to be</p> <p style="text-align: right;">Page 111</p>	<p>1 water quality requirements. If the project is not 2 effective in achieving Water Quality Standards, additional 3 management practices by individual Dischargers or third 4 party groups will be necessary. 5 The point of this is to -- is to -- if we choose 6 not to use the Ag Proposal as a framework and give -- make 7 a set of decisions today on a detailed program to give a 8 framework within which such proposals can be brought to 9 the Board -- or excuse me -- can be brought to the 10 Executive Officer after evaluation by a technical advisory 11 committee -- and we know that the technical advisory 12 committee, back before this process became so polarized, 13 was a functional group that got some stuff done. And my 14 hope in proposing this is that it would provide some 15 balanced way to evaluate stuff, provide input to the 16 Executive Officer and to the Board as well stuff that's 17 appealed to the Board. 18 MR. YOUNG: I think it's a great proposal. I 19 think what you've done is taken what Staff has always said 20 was achievable as part of what they have been proposing, 21 and essentially put down in writing what it might look 22 like, and make that part of what we're going to 23 incorporate in the Order and the Monitoring Program. 24 So how much of this did you write? 25 MR. JOHNSTON: About half.</p> <p style="text-align: right;">Page 113</p>

EXHIBIT 3

Notice of Determination

Appendix D

To: Office of Planning and Research

U.S. Mail: Street Address:
P.O. Box 3044 1400 Tenth St., Rm 113
Sacramento, CA 95812-3044 Sacramento, CA 95814

From:

Public Agency: Central Coast Water Board
Address: 895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Contact: Angela Schroeter
Phone: 805-542-4644

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number: 2010101073

Project Title: Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, Order

Project Applicant: Central Coast Water Board (Regional Water Quality Control Board, San Luis Obispo)

Project Location: The Central Coast Water Board's boundary which includes all of Santa Cruz, San Benito, Monterey, Santa Barbara, and San Luis Obispo counties, as well as the southern one-third of Santa Clara, and small portions of San Mateo, Kern and Ventura counties.

Project Description: The purpose of this project is to renew the 2004 Agricultural Order with revised conditions. The 2012 Agricultural Order (Order No. R3-2012-0011) renews a conditional waiver of waste discharges of waste from irrigated agricultural lands in a manner protective of water quality and consistent with the Porter-Cologne Water Quality Control Act (Wat. Code Div. 7) and associated plans and policies. The Agency determined that it is unlikely that this project will have a significant effect on the environment.

This is to advise that the Central Coast Water Board (Lead Agency) has approved the above described project on March 15, 2012 and has made the following determinations regarding the above described project:

1. The project will not have a significant effect on the environment.
2. A Subsequent Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures were not made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan was not adopted for this project.
5. A statement of Overriding Considerations was adopted for this project.
6. Findings were made pursuant to the provisions of CEQA.

This is to certify that the final subsequent EIR with comments and responses and record of project approval is available to the General Public at:

http://www.waterboards.ca.gov/centralcoast/water_issues/programs/ag_waivers/ag_order.shtml

Signature (Public Agency): Michael Thomas Title: Agisted Executive Officer

Date: 4/3/2012 Date Received for filing at OPR: _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code. Revised 2011