

## CV-SALTS Executive Committee Meeting

September 18, 2014 - 9:00 AM to 3:00 PM

Sacramento Regional Sanitation District Offices – Sunset Maple Room  
10060 Goethe Rd, Sacramento 95827

Teleconference (712) 432-0360 Code: 927571#

Go-To-Meeting Link: <https://global.gotomeeting.com/meeting/join/990364357>

Meeting ID: 990-364-357

Posted 09.09.14 – Revised 09.17.14

### AGENDA

**1) Welcome and Introductions - Chair**

- a) Committee Roll Call and [Membership Roster](#) -5 min.
- b) Review/Approve Executive Committee [Meeting Notes for August 14, 2014](#) – 5 min.

**2) Discuss and Finalize Key Terms to be Defined in SNMP - Tim Moore (2 hours)**

- [Maximum Benefit Definitions Handout](#)
- [BPTC Handout](#)
- [Triggers for Antideg Analysis](#)
- [Copy of Resolution No. 68-16](#)

11:30 am to 1:00 pm - Lunch on your own

**3) Continue Discussion of Item #3 from the morning session - Tim Moore (60 minutes)**

**4) Review Revisions to Summary of Nitrates in Groundwater Discussion - Tim Moore (60 min.)**

- [Revised Approach for Permitting Nitrate Discharges \(Track Changes\)](#)
- [Revised Approach for Permitting Nitrate Discharges \(clean\)](#)

**5) Set next meeting objectives/date**

- October 3<sup>rd</sup> Admin Meeting
- SSALTS Webinar (in preparation for discussion at Oct. Executive Committee meeting)
- October Executive Committee Meeting – **TBD**

CV-SALTS meetings are held in compliance with the Bagley-Keene Open Meeting Act set forth in Government Code sections 11120-11132 (§ 11121(d)). The public is entitled to have access to the records of the body which are posted at <http://www.cvsalinity.org>

One or more Central Valley Regional Water Quality Board members may attend.

## CV-SALTS Committee Rosters

Executive Committee Membership			CV-SALTS Executive Committee Meetings During 2014										
Voters	Category/Stakeholder Group	Name	7-Mar	13-Mar	11-Apr	24-Apr	22-May	13-Jun	19-Jun	11-Jul	14-Aug	12-Sep	18-Sep
1	Central Valley Water Board	Pamela Creedon		✓		✓	✓		✓				
Alt	Central Valley Water Board	Jeanne Chilcott	✓			✓	✓	✓	✓		✓	✓	
2	State Water Resources Control Bd.	Darrin Polhemus		✓		✓	✓		✓		✓		
3	Department of Water Resources	Jose Faria											
Alt	Department of Water Resources	Ernie Taylor	✓	✓			✓		✓	✓	✓		
4	US Bureau of Reclamation	Michael Mosley		✓	✓	✓	✓		✓		✓		
5	Environmental Justice	Jennifer Clary		✓		✓	✓		✓				
6	Environmental Water Quality	TBD											
<b>CV Salinity Coalition</b>													
1	So. San Joaquin WQC	Dave Orth		✓		✓							
2	City of Stockton	Robert Grandberg											
3	California Cotton Growers	Casey Creamer			✓	✓	✓	✓	✓	✓	✓	✓	
4	City of Fresno	Steve Hogg											
5	CA League of Food Processors	Trudi Hughes					✓						
Alt	CA League of Food Processors	Rob Neenan		✓					✓		✓		
6	Wine Institute	Tim Schmelzer											
Alt	Wine Institute	Chris Savage											
7	City of Tracy	Erich Delmas		✓			✓		✓		✓		
Alt	City of Tracy	Dale Klever											
8	Sacramento Regional CSD	Lysa Voight	✓	✓	✓		✓		✓	✓	✓		
Alt	Sacramento Regional CSD	Carolyn Geisler-Balazs			✓	✓	✓	✓		✓			
9	San Joaquin Tributaries Authority	Dennis Westcot	✓	✓		✓	✓		✓				
10	City of Modesto	Gary DeJesus					✓						
11	California Rice Commission	Tim Johnson									✓		
12	City of Manteca	Phil Govea											
13	Tulare Lake Drainage/Storage District	Mike Nordstrom		✓	✓	✓	✓	✓			✓	✓	
14	Western Plant Health Assoc.	Renee Pinel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
15	City of Vacaville	Royce Cunningham		✓	✓	✓	✓	✓			✓		
16	Dairy Cares	Paul Sousa											
Alt	Dairy Cares	J.P. Cativiela		✓	✓	✓	✓	✓	✓		✓	✓	
17	Westlands Water District	Jose Guterrez									✓		
<b>Comm. Chairs/Co-chairs</b>													
1	Chair Executive Committee	Parry Klassen, ESJWQC	✓	✓	✓	✓		✓	✓		✓	✓	
2	Vice Chair Executive Committee	Debbie Webster CVCWA	✓	✓	✓	✓	✓		✓	✓	✓	✓	
3	Technical Advisory Committee	Roger Reynolds, S Engr.	✓		✓		✓	✓		✓		✓	
	Technical Advisory Committee	Nigel Quinn, LBL	✓	✓	✓		✓	✓		✓	✓		
4	Public Education and Outreach	Joe DiGiorgio	✓	✓	✓	✓	✓	✓	✓		✓	✓	
5	Economic and Social Cost Committee	David Cory, SJVDA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6	Lower San Joaquin River Committee	Karna Harrigfeld, SEWD		✓	✓	✓	✓	✓	✓	✓	✓		

**CV-SALTS Committee Rosters**

Participant Names			CV-SALTS Executive Committee Meetings During 2014										
Last	First	Organization	7-Mar	13-Mar	11-Apr	24-Apr	22-May	13-Jun	19-Jun	11-Jul	14-Aug	12-Sep	18-Sep
Archibald	Elaine	CUWA										✓	
Ashby	Karen	LWA	✓	✓	✓	✓	✓		✓	✓		✓	
Ashley	Joe	Oxley Oil	✓										
Barclay	Diane	SWRCB		✓		✓	✓		✓		✓		
Buford	Pam	CVRWQCB	✓	✓	✓			✓	✓	✓	✓	✓	
Carlo	Penny	Carollo Engineers											
Clancy	John								✓				
Clary	Jennifer	CWA		✓	✓	✓	✓			✓			
D'Adamo	Dee Dee	SWRCB					✓						
Dickey	John	Plantierra		✓		✓			✓		✓		
Dunham	Tess	Somach Simmons		✓		✓	✓		✓	✓	✓		
Dutton	Maggie	DWR					✓						
Firestone	Laurel	CWC					✓		✓				
Fuller	Dustin	TLDD									✓		
Gonzalez	Armando	Occidental Oil & Gas									✓		
Gowdy	Mark	SWRCB,Water Rights											
Grovhoug	Tom	LWA	✓	✓		✓	✓		✓		✓		
Gryczko	Stan	City of Davis											
Herr	Joel	Systech											
Houdesheldt	Bruce	NCWA/Sac Valley WQC	✓			✓	✓	✓	✓	✓	✓		
Johnson	Jeff	Chevron									✓		
Johnson	Michael	LSJRC	✓	✓	✓	✓	✓		✓	✓		✓	
Kretsinger Grabert	Vicki	LSCE	✓	✓		✓	✓		✓	✓	✓		
LeClaire	Joe	CDM Smith								✓		✓	
Leach	Joe	City of Dixon						✓					
Longley	Karl	CVRWQCB		✓		✓	✓				✓		
Meeks	Glenn	CVRWQCB									✓	✓	
Meyerhoff	Richard	CDM Smith			✓	✓	✓	✓	✓	✓	✓	✓	
Moore	Tim	Risk-Sciences		✓		✓	✓		✓		✓		
Olson	Anne	CVRWQCB		✓				✓					
Parsons	Rob	CDM Smith						✓					
Pitcher	Jenifer	West. States Petroleum									✓	✓	
Quasebarth	Tom	CDM Smith	✓	✓									
Reyes	Tom	City of Vacaville											
Rodgers	Clay	CVRWQCB		✓		✓	✓		✓		✓		
Sawyer	Steve	City of Vacaville											
Seaton	Phoebe	CRLA		✓		✓	✓						
Tapia	Joe	DWR					✓						
Tellers	Josie	City of Davis	✓	✓		✓	✓	✓	✓		✓	✓	
Thomas	Bill										✓		
Tristao	Dennis	J.G. Boswell	✓	✓									
Wackman	Mike										✓		
Wilson	Fern	City of Vacaville		✓									
Witty	James	Stantec			✓								
Yee	Betty	CVRWQCB			✓		✓						

**CV-SALTS Executive Committee Meeting - Summary Action Notes**  
For August 14, 2014 - 9:00 AM to 3:00 PM

**Attendees are listed on the Membership Roster**

**AGENDA**

- 1) Welcome and Introductions
  - a) Committee Chair Parry Klassen brought the meeting to order, and roll call was completed.
  - b) Debbie Webster moved to approve, and David Cory seconded, and by general acclamation the June 19<sup>th</sup> action notes were approved.
  
- 2) Fertilizer Research and Education Program (FREP)
  - This presentation was deferred until a later date, TBD.
  
- 3) Discuss and Finalize Key Terms to be Defined in SNMP – MORNING SESSION
  
- 4) Continue Discussion of Item #3 from the morning session – AFTERNOON SESSION
  - The morning and afternoon discussions focused on the proposed strawman definitions for the following key terms and concepts :
    - Existing Water Quality
    - Beneficial uses are “not unreasonably affected” ...
    - Beneficial uses are “threatening to be exceeded” ...
    - Decision Criteria for Demonstrating “Maximum Benefit to the People of the State” ...
  - Tim Moore will revise the proposed definitions based on discussions during the meeting.
  - Tim outlined the proposed policy discussion schedule for the remainder of 2014:
    - September meeting will address BPTC and Maximum Benefit
    - October will be dedicated to SSALTS
      - Per Richard Meyerhoff the purpose of the SSALTS October item is to present feasibility criteria that will be used to analyze the alternatives in development, and the presentation should not require the full meeting.
      - Committee members proposed using a webinar for the initial SSALTS briefing, and utilize only a portion of the October meeting for SSALTS discussion and debate.
        - Daniel Cozad will speak with Richard regarding this option for the SSALTS update.
    - November meeting will see an annotated outline of the SNMP which will be written during 2015.
  
- 5) Grassland Bypass Project Waste Discharge Requirements (WDR)
  - After an introduction by Jeanne Chilcott and Glenn Meeks, the committee agreed to defer this item to the September 12<sup>th</sup> Administrative Meeting, to give members more time to review the item prior to the full discussion.
  
- 6) Set next meeting objectives/date
  - The next Admin Meeting will be September 12<sup>th</sup>. The next Policy Session is scheduled for September 18<sup>th</sup>.

### **High Priority Phrases to Define**

- 1) Best Practicable Treatment or Control (BPTC)
- 2) Best Efforts
- 3) Best Management Practice (BMP)
- 4) Available assimilative capacity
- 5) Existing water quality
- 6) First Encountered Groundwater
- 7) Zone-of-Influence (aka Zone-of-Contribution)
- 8) Cause pollution or nuisance
- 9) Water quality objectives are being or are threatening to be exceeded
- 10) Not unreasonably affect beneficial uses
- 11) Not reasonably feasible or practicable (infeasible, impracticable)
- 12) Substantial and widespread social and economic impact
- 13) Necessary to accommodate important social and economic growth in the region
- 14) Maximum benefit to the people of California

### **Other Key Phrases**

- 15) Average water quality
- 16) Naturally-occurring background concentration
- 17) Receiving water
- 18) Groundwater basin
- 19) Groundwater Sub-basin (Management Zone)
- 20) Vadose zone
- 21) Saturated zone
- 22) Use is attained or “in attainment”
- 23) Use is impaired or “in non-attainment”
- 24) Vulnerable area
- 25) MUN-Limited
- 26) Point-of-Compliance
- 27) Point-of-Use
- 28) Imperceptible improvement in water quality
- 29) Reasonable progress toward attainment
- 30) Salt and nitrate loading on a sustainable basis

### 3) "Consistent with Maximum Benefit to the People of the State"

#### Related concepts...

- a) Necessary to accommodate important economic or social development in the area in which the waters are located (*federal; 40CFR131.12-a-2*)
- b) Would result in substantial and widespread economic and social impact (*federal; 40CFR131.10-g-6*)

#### Factors to be considered...

- a) Maximum Benefit is determined on a case-by-case basis
- b) Past, present and probable future beneficial uses of the water; esp. including use for water supply
- c) Economic and social costs, tangible and intangible, of the proposed discharge compared to the benefits
- d) Ability to pay for the necessary treatment and whether imposing such costs will result in significant adverse impact on the community (several federal tools and templates are available for surface waters)
- d) Environmental aspects of the proposed discharge (esp. net effects on water quality in the region; example: preventing seawater intrusion or preserving critical habitat)
- e) Implementation of feasible alternative treatment or control measures to abate social costs of lower water quality
- f) Must consider "costs" to both the discharger and others affected by the discharge
- g) Cost savings "alone" are not an adequate justification; must also demonstrate how the savings are necessary to accommodate important social and economic development (note reference to federal regulations in interpreting state antideg policy; presumably applies to surface waters only)
- h) Reduction in water quality is spatially localized or limited (e.g. confined to the mixing zone)
- i) Reduction in water quality is temporally limited and will not result in any long-term deleterious effects on water quality
- j) Proposed discharge will produce only minor effects which will not result in a significant reduction of water quality (e.g. a single project uses less than 10% of available assimilative capacity or the cumulative effect of all projects uses less than 20% of available assimilative capacity in a given basin, sub-basin or management zone).
- k) The proposed activity has been approved in the General Plan of a political subdivision and has been subjected to adequate environmental and economic analysis in an EIR prepared as required under CEQA.
- l) EPA's Water Quality Standards Handbook (Chapter 5) provides additional guidance for evaluating socio-economic impacts related to meeting water quality standards in surface waters

Primary reference sources: 1) SWRCB's Guidance on Resolution 68-16, 1995; 2) SWRCB's Administrative Procedures Update 90-004; 3) SWRCB's Recycled Water Policy, 2009; 4) CWC §13241; 5) Asociacion de Gente Unida Por El Agua v. Central Valley Board, 210 Cal. App. 4<sup>th</sup> 1255

**3) "Consistent with Maximum Benefit to the People of the State" (continued)**

Proposed Strawman Decision Criteria for Demonstrating "Maximum Benefit to the People of the State"...

- A) Lower water quality is spatially-limited and/or a temporary condition. Example: deep-well injection projects where recycled water is stored for later extraction or providing additional recharge that will ultimately blend with and offset the discharge.
- B) Lowering water quality at one location will result in higher water quality in the same or another location such that there is a net improvement in water quality and beneficial use protection in the receiving water, watershed, region or state as a whole. Example: a groundwater clean-up project removes TCE, but the air stripping process increases the concentration of TDS.
- C) Lowering water quality will result in more effective protection of actual beneficial uses than would occur by imposing more stringent effluent limitations or prohibiting the discharge. Example: the discharge is coupled with a project to provide well-head treatment or alternate drinking water supplies where the MUN use is severely impaired.
- D) Lowering water quality would facilitate increased use of recycled water (particularly by displacing demand for potable water) and thereby increase the overall water supply in the watershed, region or state. Example: using recycled water for landscape or agricultural irrigation.
- E) Lowering water quality would facilitate increased recharge and storage to groundwater basins and particularly where the underlying aquifer is in an overdraft condition.
- F) Lowering water quality is necessary to accommodate important social and economic growth in the region particularly where more stringent effluent limitations or discharge prohibitions would result in widespread and substantial adverse socioeconomic impacts in the area.
- G) Lowering water quality would produce less adverse environmental impact than imposing more stringent effluent limitations or discharge prohibitions. Example: additional treatment results in significant cross-media waste streams (e.g. brines, greenhouse gases, etc.) or requires significant energy consumption without any corresponding reduction in risk to public health or the environment.
- H) Lowering water quality is necessary to preserve beneficial uses that may otherwise be lost if discharge flows are significantly diminished in order to comply with more stringent effluent limitations. Example: preservation of aquatic habitat or recreational resources in an ephemeral/intermittent stream.
- I) Allowing lower water quality in the discharge will reduce the rate at which water quality is already degrading (or is expected to degrade) in the receiving water. Example: creating barriers to groundwater migration or diluting contaminants in the vadose zone.
- J) Allowing lower water quality, in relation to the baseline condition, would actually improve existing water quality.
- K) Allowing lower water quality is necessary to prevent widespread and substantial adverse social or economic impact or to accommodate important social and economic development in the nation, state or region.
- L) Allowing lower water quality is necessary to protect infrastructure or industries deemed vital to national security, public safety, public health, or the environment.

<b>Regulatory Requirement</b> (common abbreviation)	<b>Reference Citation</b>	<b>Intended Application</b>
1) <b>Best Practicable Treatment or Control (BPTC)</b> "...to assure a nuisance or pollution will not occur ... water quality consistent with maximum benefit to the people of the State"	SWRCB Res. 68-16 (State Antideg. Policy)	Surface & Ground Waters of CA Point & Non-point Sources
2) <b>Best Management Practices (BMP)</b> and measures to control each category and subcategory of non-point sources ... to reduce, to the maximum extent practicable (MEP), the level of pollution from such sources	CWA §319(a)(1)(C)	Surface Waters of the U.S. Non-point Sources
3) <b>Cost Effective and Reasonable Best Management Practices (BMP)</b>	40 CFR 131.12(a)(2)	Surface Waters of the U.S. Non-point Sources
4) <b>Best Practicable Control Technology</b> Currently Available (BPT)	CWA §304(b)(1)	Surface Waters of the U.S. Point Sources
5) <b>Best Conventional Pollutant Control Technology (BCT)</b>	CWA §304(b)(4)	Surface Waters of the U.S. Point Sources other than POTWs Specified Conventional Pollutants
6) <b>Best Available Technology Economically Achievable (BAT)</b>	CWA §304(b)(2)	Surface Waters of the U.S. Point Sources other than POTWs
7) <b>Best Efforts</b> ; "limitations which the discharger be expected to achieve with reasonable control methods"	SWRCB WQO 81-5 (City of Lompoc)	Surface & Ground Waters of CA

**Key Factors to be Considered when Assessing Reasonability and Practicability:**

- 1) The quality of water supply available to the discharger
- 2) Past effluent quality of the discharger
- 3) Effluent quality achieved by other similarly situated dischargers
- 4) Good faith efforts of the discharger to limit the discharge of the constituent
- 5) The measures necessary to achieve compliance
- 6) Compare proposed method to existing proven technology
- 7) Evaluate performance data (e.g. through treatability studies)
- 8) Compare alternative methods of treatment or control
- 9) Costs of treatment or control (affordability and ability to pay)
- 10) Cost-effectiveness (efficiency)
- 11) Technical feasibility
- 12) Economic and social costs compared to the benefits to the community
- 13) Environmental effects (beneficial and detrimental, intended and unintended)
- 14) Public acceptance





## Triggering Antidegradation Analysis

*"Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies became effective, such existing high quality will be maintained..." (SWRCB Res. 68-16)*

Existing Water Quality (EWQ) = Current Quality (representative of the waterbody accounting for spatial & temporal variability)

Baseline Water Quality (BWQ) = Best Water Quality that has existed since...

(a) The date the relevant Water Quality Objective (WQO) became effective

- i. Nitrate (1972-75?)
- ii. EC (date Table 64449B from Title-22 incorporated by reference?)

(b) 1968 when Resolution 68-16 was considered and adopted [APU-90-004]

(c) Unless, permitted discharges were authorized to lower water quality thereby establishing a "new" baseline threshold for subsequent antidegradation analyses

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- 1) If Discharge Quality (DQ) is better than BWQ, then no antideg analysis is required because discharge is not expected to lower water quality (assumes BWQ is known).
  - 2) If EWQ worse than WQO, then there is no Assimilative Capacity available.
  - 3) EWQ better than WQO = "High Quality Water" and Assimilative Capacity is available.

If BWQ is Unknown; then further Antidegradation Analysis is always required...

Scenario A) If DQ is better than EWQ then a simple antideg analysis is acceptable because discharge is expected to improve EWQ

Scenario B) If DQ is worse than EWQ then a complete antideg analysis is necessary because discharge is expected to reduce EWQ

STATE WATER RESOURCES CONTROL BOARD

RESOLUTION NO. 68-16

STATEMENT OF POLICY WITH RESPECT TO  
MAINTAINING HIGH QUALITY OF WATERS IN CALIFORNIA

WHEREAS the California Legislature has declared that it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the waters of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State and shall be controlled so as to promote the peace, health, safety and welfare of the people of the State; and

WHEREAS water quality control policies have been and are being adopted for waters of the State; and

WHEREAS the quality of some waters of the State is higher than that established by the adopted policies and it is the intent and purpose of this Board that such higher quality shall be maintained to the maximum extent possible consistent with the declaration of the Legislature;

NOW, THEREFORE, BE IT RESOLVED:

1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State 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 such water and will not result in water quality less than that prescribed in the policies.
2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.
3. In implementing this policy, the Secretary of the Interior will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act.



## **Proposed Approach for Evaluating and Regulating Nitrate Discharges to Groundwater in the Central Valley Region**

### **Applicable Water Quality Standards**

- 1) With limited exceptions, *"all ground waters in the Central Valley region are considered suitable, or potentially suitable, at a minimum, for municipal and domestic water supply (MUN)."*<sup>1</sup> The MUN beneficial use applies to *"community, military, or individual water supply systems including, but not limited to, drinking water supply."*
- 2) The Water Quality Control Plans for the Central Valley region state that, *"at a minimum, ground waters designated for domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in Title-22 of the California Code of Regulations."* And, the California Department of Public Health established the MCL for Nitrate at 45 mg/L (as NO<sub>3</sub>).<sup>2</sup>
- 3) The California State Legislature has established a statewide policy that *"every human being has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking and sanitary purposes. The legislature also declared that "all relevant state agencies ... shall consider this state policy when revising, adopting or establishing policies, regulations, and grant criteria ... pertinent to the uses of water described above."*<sup>3</sup>
- 4) In a recent Report to the Legislature, the State Water Board made the following commitment with respect to regulating nitrate discharges to groundwater:

*"The Water Boards will evaluate all existing Waste Discharge Requirements to determine whether existing regulatory permitting is sufficiently protective of groundwater quality at these sites. The Water Boards will use the findings to improve permitting activities related to nitrate."*<sup>4</sup>

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<sup>1</sup> Central Valley Regional Water Quality Control Board. Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin – 4<sup>th</sup> Ed. Pg. II-3.0 Note: the exceptions are also identified in the Basin Plan. The Tulare Lake Basin Plan contains identical text.

<sup>2</sup> 22 CCR §64431(a); see Table 64431-A (Maximum Contaminant Levels for Inorganic Chemicals)

<sup>3</sup> AB 685 adding §106.3 to the California Water Code. Signed by Gov. Brown on September 25, 2012.

<sup>4</sup> State Water Resources Control Board. Report to the Legislature: Recommendations for Addressing Nitrate in Groundwater (February, 2013). See recommendation #15 at page 43 of the report.

## Water Quality Conditions and Permitting Considerations:

- 5) Several independent studies have reported that nitrate concentrations exceed the established MCL at numerous well locations throughout the Central Valley.<sup>5</sup> This conclusion is also supported by recent technical reports prepared by CV-SALTS.<sup>6</sup>
- 6) The State Water Board has determined that: *"most nitrate detected in drinking water wells today was originally applied to the surface decades ago... [and] nitrate problems will likely worsen for decades."*<sup>7</sup>
- 7) Where nitrate concentrations already exceed the applicable water objective, or are likely to do so in the near future due to legacy loads in the vadoze zone, requiring current dischargers to meet the nitrate objective probably won't eliminate the existing groundwater impairment or restore the MUN beneficial use to full attainment.<sup>8</sup>
- 8) "Pump-and-Treat" technologies traditionally used to remediate groundwater contamination (e.g. MTBE, TCE or PCB plumes from discrete industrial discharges), *"are not technically feasible for large groundwater basins"* that have been adversely affected by widespread and diffuse non-point sources over a prolonged period of time.<sup>9</sup>
- 9) The State Water Board has concluded that, *for some locations, "pollution prevention and cleanups ... may not be feasible. Consequently, any practical solution to groundwater contamination must also focus on strategies to provide safe drinking water to consumers through treatment and alternative water supplies."*<sup>10</sup> And, the State Water Board has declared that *"the single most important action that can be taken to help ensure safe drinking water for all Californians is to provide a stable, long-term source(s) of funding to assist those impacted by nitrate-contaminated groundwater."*<sup>11</sup>

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<sup>5</sup> See, for example, Thomas Harter, et al. Addressing Nitrate in California's Drinking Water: Report to the California State Water Resources Control Board. U.C. Davis Center for Watershed Sciences. January, 2012. See, also, Communities that Rely on Contaminated Groundwater. State Water Resources Control Board Report to the Legislature. January, 2013.

<sup>6</sup> Initial Conceptual Model (ICM) Technical Services Tasks 7 and 8 – Salt and Nitrate Analysis for the Central Valley Floor Final Report. December, 2013. See Fig 7-18 on page 7-25.

<sup>7</sup> State Water Resources Control Board. Report to the Legislature: Recommendations for Addressing Nitrate in Groundwater. February, 2013; pg. 5 (citing the UC-Davis Report identified in Footnote #3, above).

<sup>8</sup> State Water Resources Control Board. Report to the Legislature: Communities that Rely on Contaminated Groundwater. Jan., 2013. See discussion at pages 18-20 in the report. See also the United Nations Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation. A/HRC/18/33/Add.4 (Aug. 2, 2011); [http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4\\_en.pdf](http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4_en.pdf)

<sup>9</sup> State Water Resources Control Board. Report to the Legislature: Recommendations for Addressing Nitrate in Groundwater. February, 2013; pg. 5 (citing the UC-Davis Report identified in Footnote #3, above).

<sup>10</sup> State Water Resources Control Board. Report to the Legislature: Communities that Rely on Contaminated Groundwater. Jan., 2013; pg. 19.

<sup>11</sup> State Water Resources Control Board. Report to the Legislature: Recommendations for Addressing Nitrate in Groundwater. February, 2013; pg. 24.

## Regional Board's Priorities When Permitting Nitrate Discharges

- 10) Where nitrate-nitrogen concentrations in groundwater are  $\leq 10$  mg/L, the Regional Board's primary ~~management permitting~~ strategy will be to protect these high quality waters by regulating prevent existing and future discharges in accordance with the state's Antidegradation Policy (SWRCB Res. 68-16). ~~from impairing the designated use.~~
- 11) Where nitrate-nitrogen concentrations in groundwater already exceed the applicable Basin Plan objective, or are likely to do so in the future as a result of previous pollutant loads to the vadose zone, the Regional Board permitting strategy will be designed to accomplish the following outcomes (in order of priority):
- A) The ~~highest and most~~ immediate priority is to provide a safe drinking water alternative for those who are dependent on groundwater where nitrate concentrations are (or soon will be) greater than the Maximum Contaminant Level (MCL).
  - B) The near-term priority is to minimize further water quality degradation by requiring dischargers to apply "best efforts" ~~and implement "best practicable treatment or controls"~~ to reduce current and future nitrate discharges to groundwater loads.
  - C) The long-term priority is to encourage development of systems and infrastructure needed to attain remediate designated uses water quality standards in groundwater through a program of "managed restoration" where it is feasible and practicable to do so. It is acknowledged that existing water quality impairment occurred over several decades and considerable time may be required may require as much or more time to restore some groundwater basins to full attainment.

## Minimum Baseline Requirements for ALL Nitrate Discharges to Groundwater

- 12) ~~All~~ dischargers to groundwater will be required to:
- A) Make "best efforts" to minimize nitrate discharges to groundwater. This includes periodic reassessments, by the discharger, to demonstrate that use of up to date Best Management Practices (BMP) are being implemented.
  - B) Prepare appropriate technical ~~Perform water chemistry~~ analyses to estimatedetermine the concentration and mass of nitrate discharged to groundwater.
  - C) Characterize the current nitrate concentration in the receiving groundwater unless the nitrate concentration in the discharge is less than the baseline nitrate concentration or is less than 10 mg/L for groundwater basins where the nitrate concentration already exceeds the MCLand determine if there is any available assimilative capacity in the groundwaters receiving the discharge.

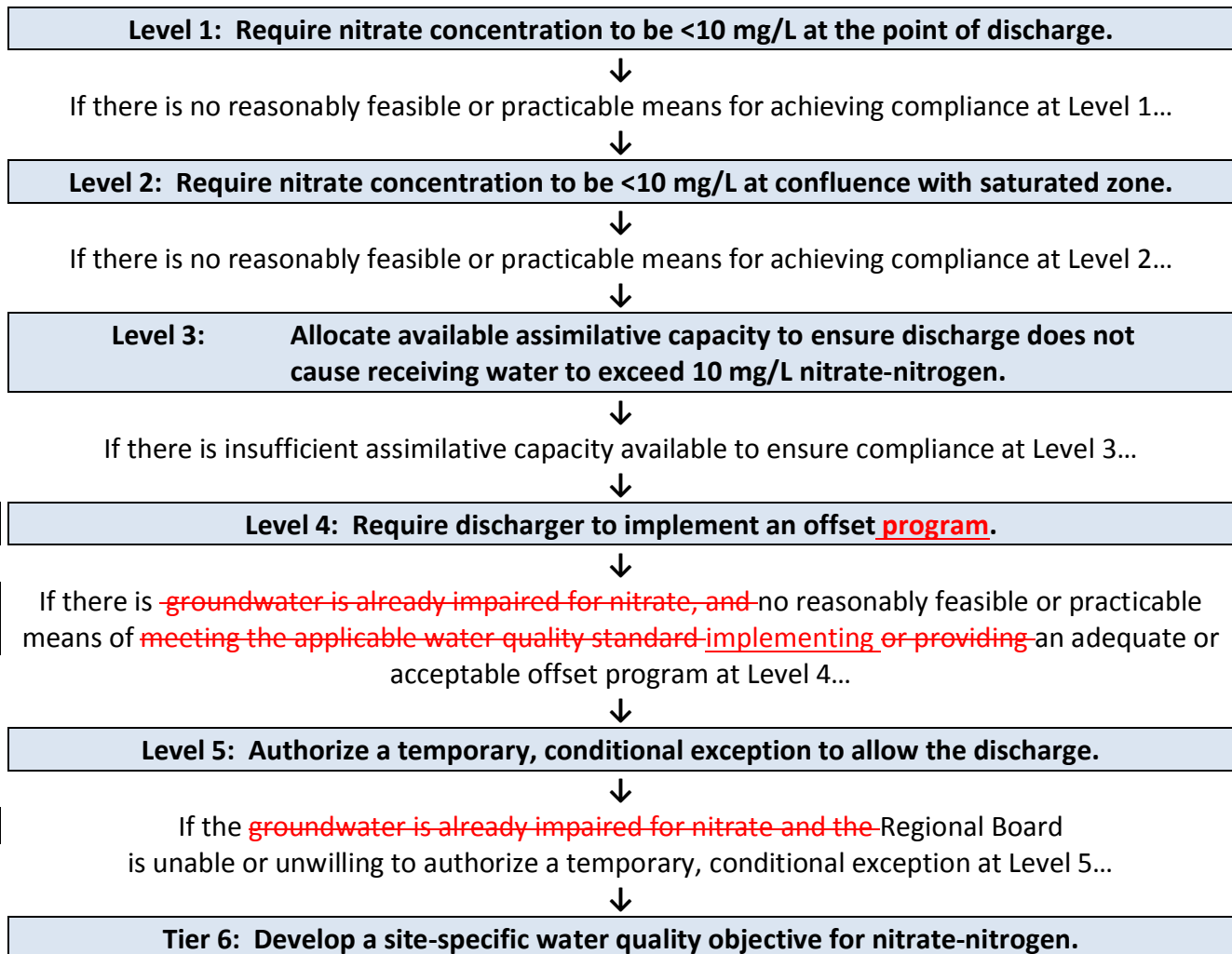
D) ~~Estimate the net change in nitrate concentration in the groundwater, including any change in available assimilative capacity, that is likely to occur as a result of the discharge.~~

**Proposed Procedure Permitting Strategy for Authorizing Nitrate Discharges to Groundwater**

- 13) The Regional Board will rely on a Stepwise Evaluation and Implementation Process to develop appropriate Waste Discharge Requirements (WDRs) for all future discharges of nitrate to groundwater (see Fig. 1). In all cases, the discharger will ~~always~~ be required to make best efforts to minimize nitrate concentrations as a prerequisite condition.

These steps, which describe a range of Compliance Alternatives, are presented in hierarchical order. If the Regional Board elects to authorize additional nitrate discharges to groundwater, it will develop WDRs using the implementation alternative from the lowest possible level to ensure compliance. However, the availability of one or more -compliance options in the Stepwise Procedure does not obligate the Regional Board to authorize any particular discharge. A more detailed explanation of the Stepwise Evaluation and Implementation Process follows Fig. 1.

**Figure 1:  
Stepwise Process for Issuing Permits to Discharge Nitrate to Groundwater**



- 14) **Level 1 - Comply at Point-of-Discharge:** the traditional approach for protecting the MUN beneficial use is to require nitrate concentrations in discharges to be less than 10 mg/L. And, this remains the Regional Board's preferred permitting strategy for controlling nitrate loads. Discharges will be expected to meet the Basin Plan objective for nitrate-nitrogen when there exists a reasonably feasible and practicable means for doing so by implementing "Best Efforts". The Regional Board may consider authorizing a compliance schedule where necessary to provide time for the discharger to implement adequate nitrate control measures. In addition, even when the nitrate concentration in the discharge meets the applicable water quality objective, an antidegradation analysis will be required if that concentration is higher than the nitrate concentration in the receiving groundwater.
- 15) **Level 2 - Comply at Confluence w/ Receiving Groundwater:** if the discharger can demonstrate that there is no reasonably feasible or practicable means to reduce nitrate concentrations below 10 mg/L at the point-of-discharge, the Regional Board may still authorize the discharge provided the discharger can demonstrate compliance with the Basin Plan objective at the confluence with the receiving groundwater. This approach is appropriate where the discharger can demonstrate that other factors (e.g. chemical or biological transformation, soil binding, or dilution by natural or man-made recharges ~~in the vadose zone~~) will reduce the nitrate concentrations sufficiently to ensure that compliance with water quality standards. The Regional Board will require discharges permitted at Level 2 to demonstrate the ~~high~~-reliability for all such mitigation factors and to perform routine monitoring to confirm on-going effectiveness. And, as with Level 1, an antidegradation review will be required if the discharge is likely to lower water quality in the groundwater even if other factors reduced nitrate concentrations in the discharge sufficiently to meet the objective.
- 16) **Level 3 - Comply Using Assimilative Capacity:** if there is no reasonably feasible or practicable means to ensure nitrate concentrations in the discharge meet the water quality objective prior to its confluence with the saturated zone, and nitrate concentration in the receiving groundwater basin or sub-basin is <10 mg/L, then the Regional Board may (but is not obligated to) allocate some or all of the ~~any~~ available assimilative capacity as needed to authorize the discharge provided that all of the following conditions are met:
- a) The discharge will not unreasonably affect beneficial uses or cause the nitrate concentration in the receiving water to exceed 10 mg/L. This determination will be made using the same methods and metrics that were used to demonstrate the initial availability of assimilative capacity. The Regional Board will also require adequate water quality monitoring to evaluate long-term trends in available assimilative capacity~~confirm the validity of these determinations~~. A nitrate discharge budget (aka "wasteload allocation" ~~in surface waters~~) may be needed to allocate available assimilative capacity across multiple dischargers.
  - b) The discharger will be required to implement Best Practicable Treatment or Control (BPTC) to ensure that a pollution or nuisance does not occur and the highest level of



water quality consistent with maximum benefit to the people of the state will be maintained.

*Note:* the rules governing compliance demonstrations made under Level 3 remain the same regardless of how Assimilative Capacity is calculated. However, the method selected to make this calculation will affect the number of discharges eligible for permitting at Level 3 because it governs the threshold determination as to whether or not any assimilative capacity exists. If the calculation is based on nitrate concentrations in first encountered groundwater, then there are likely to be fewer groundwater basins found to have assimilative capacity available. If the calculation is based on a volume-weighted average concentration of the ~~larger entire~~-subsurface production zone, then there are likely to be more groundwater basins identified as having some assimilative capacity available.

17) **Level 4 - Comply by Implementing Offsets:** when nitrate concentrations in the groundwater are already >10 mg/L or are expected to exceed the Basin Plan objective as a result of legacy loads to the vadose zone, and there is no reasonably feasible or practicable means for the ensuring that the discharge meets the water quality standard before its confluence with the receiving water, then the Regional Board may authorize the discharge by requiring the discharger to implement an acceptable "offset program"<sup>12</sup> provided that all of the following conditions are met:

- a) The discharge, together with the proposed offset program, does not exacerbate an existing impairment to a degree worse than is likely to occur if the discharge were prohibited, and...
- b) ~~The discharge, together with the proposed offset project, will result in better water quality and/or use(r) protection (e.g. risk reduction) than would occur if the discharge was able to meet the nitrate objective at the point of discharge, and...~~
- e) — The discharge, together with the proposed offset program, will result in better water quality or use(r) protection (e.g. risk reduction) than would occur if the discharge was prohibited, and...
- d) The proposed offset program is consistent with the long-term nitrate loading budget and the Regional Board's managed restoration strategy.
- e) The obligation to implement an offset program is codified as an enforceable provision of the WDRs. It may be necessary to characterize this obligation as an "interim, performance-based ~~requirement compliance condition~~" to ensure adequate oversight and enforceability. The Regional Board will endeavor to structure such requirements so that these offset projects remain eligible to receive state and federal grant funds when available.

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<sup>12</sup> The Regional Board may approve participation in a regional Mitigation Bank as an acceptable offset program when doing so is in the best interest of the people of California.

- f) The Regional Board may require dischargers to provide additional financial assurance, through performance bonds or other similar instruments, to ensure offset projects are completed and continue to be operated as designed in the event dischargers are unable to meet their offset obligations in the future.

- 18) **Level 5 - Exceptions from Compliance:** the Regional Board may elect to permit a discharge to groundwater with a nitrate concentration >10 mg/L by authorizing a temporary, conditional exception to water quality standards (aka "variance" for surface waters) provided that all of the following conditions are met:
- a) The receiving water is already impaired for nitrate and prohibiting the discharge would not eliminate that impairment or restore attainment of the MUN use, and...
  - b) The discharger demonstrates that is reasonably infeasible or impracticable to meet the nitrate objective at the point-of-discharge or prior to the confluence with receiving waters, and...
  - c) Authorizing the discharge would not materially increase the human health risk associated with the existing water quality impairment, and...
  - d) Prohibiting the discharge would cause widespread and substantial adverse socio-economic impacts to people residing in the area **most immediately** affected by the discharge, and...
  - e) The discharger agrees to provide **water treatment, or** an alternate water supply, that ensures a level of use(r) protection functionally-equivalent to that which would occur if **nitrate concentrations in the groundwater basin met the applicable water quality objective**~~the water quality standard for nitrate was in attainment~~, and...
  - f) The obligation to provide an alternate water supply is codified as a mandatory condition for authorizing the exception and an enforceable provision of the Waste Discharge Requirements, and...
  - g) The conditional exception is temporary with a term no greater than 10 years. However, the Regional Board may reauthorize the exception, for additional 10 year terms, provided that the discharger continues to meet all of the same eligibility criteria **and has complied with the terms and conditions of the previous exception.**
  - h) The temporary, conditional exception is consistent with the Regional Board's strategy of managed restoration and facilitates reasonable progress toward attainment over the long-term.

19) **Level 6 - Site Specific Objective:** where existing groundwater quality is already impaired by nitrate in excess of the Basin Plan objective, and there is no ~~realistic reasonable~~ prospect of restoring the basin to full attainment in a reasonable time frame, the Regional Board may elect to:

- a) Segment the groundwater basin into sub-basins by separating areas of impairment from areas of attainment, and...
- b) Subcategorize the impaired sub-basin as "MUN-Limited: requires additional treatment for drinking water purposes," and...
- c) Establish a site-specific water quality objective (SSO) based on existing nitrate concentrations in the MUN-Limited sub-basin, and...
- d) Implement WDRs to permit discharges with nitrate concentrations >10 mg/L but less than the SSO provided the discharger agrees to provide the necessary treatment for all impaired wells in the affected Management Zone approved by the Regional Board.
- e) The discharger must demonstrate that the discharge will not unreasonably affect designated uses in adjacent basins or sub-basins.



## **Proposed Approach for Evaluating and Regulating Nitrate Discharges to Groundwater in the Central Valley Region**

### **Applicable Water Quality Standards**

- 1) With limited exceptions, *"all ground waters in the Central Valley region are considered suitable, or potentially suitable, at a minimum, for municipal and domestic water supply (MUN)."*<sup>1</sup> The MUN beneficial use applies to *"community, military, or individual water supply systems including, but not limited to, drinking water supply."*
- 2) The Water Quality Control Plans for the Central Valley region state that, *"at a minimum, ground waters designated for domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in Title-22 of the California Code of Regulations."* And, the California Department of Public Health established the MCL for Nitrate at 45 mg/L (as NO<sub>3</sub>).<sup>2</sup>
- 3) The California State Legislature has established a statewide policy that *"every human being has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking and sanitary purposes. The legislature also declared that "all relevant state agencies ... shall consider this state policy when revising, adopting or establishing policies, regulations, and grant criteria ... pertinent to the uses of water described above."*<sup>3</sup>
- 4) In a recent Report to the Legislature, the State Water Board made the following commitment with respect to regulating nitrate discharges to groundwater:

*"The Water Boards will evaluate all existing Waste Discharge Requirements to determine whether existing regulatory permitting is sufficiently protective of groundwater quality at these sites. The Water Boards will use the findings to improve permitting activities related to nitrate."*<sup>4</sup>

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<sup>1</sup> Central Valley Regional Water Quality Control Board. Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin – 4<sup>th</sup> Ed. Pg. II-3.0 Note: the exceptions are also identified in the Basin Plan. The Tulare Lake Basin Plan contains identical text.

<sup>2</sup> 22 CCR §64431(a); see Table 64431-A (Maximum Contaminant Levels for Inorganic Chemicals)

<sup>3</sup> AB 685 adding §106.3 to the California Water Code. Signed by Gov. Brown on September 25, 2012.

<sup>4</sup> State Water Resources Control Board. Report to the Legislature: Recommendations for Addressing Nitrate in Groundwater (February, 2013). See recommendation #15 at page 43 of the report.

## Water Quality Conditions and Permitting Considerations:

- 5) Several independent studies have reported that nitrate concentrations exceed the established MCL at numerous well locations throughout the Central Valley.<sup>5</sup> This conclusion is also supported by recent technical reports prepared by CV-SALTS.<sup>6</sup>
- 6) The State Water Board has determined that: *"most nitrate detected in drinking water wells today was originally applied to the surface decades ago... [and] nitrate problems will likely worsen for decades."*<sup>7</sup>
- 7) Where nitrate concentrations already exceed the applicable water objective, or are likely to do so in the near future due to legacy loads in the vadoze zone, requiring current dischargers to meet the nitrate objective probably won't eliminate the existing groundwater impairment or restore the MUN beneficial use to full attainment.<sup>8</sup>
- 8) "Pump-and-Treat" technologies traditionally used to remediate groundwater contamination (e.g. MTBE, TCE or PCB plumes from discrete industrial discharges), *"are not technically feasible for large groundwater basins"* that have been adversely affected by widespread and diffuse non-point sources over a prolonged period of time.<sup>9</sup>
- 9) The State Water Board has concluded that, for some locations, *"pollution prevention and cleanups ... may not be feasible. Consequently, any practical solution to groundwater contamination must also focus on strategies to provide safe drinking water to consumers through treatment and alternative water supplies."*<sup>10</sup> And, the State Water Board has declared that *"the single most important action that can be taken to help ensure safe drinking water for all Californians is to provide a stable, long-term source(s) of funding to assist those impacted by nitrate-contaminated groundwater."*<sup>11</sup>

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<sup>5</sup> See, for example, Thomas Harter, et al. Addressing Nitrate in California's Drinking Water: Report to the California State Water Resources Control Board. U.C. Davis Center for Watershed Sciences. January, 2012. See, also, Communities that Rely on Contaminated Groundwater. State Water Resources Control Board Report to the Legislature. January, 2013.

<sup>6</sup> Initial Conceptual Model (ICM) Technical Services Tasks 7 and 8 – Salt and Nitrate Analysis for the Central Valley Floor Final Report. December, 2013. See Fig 7-18 on page 7-25.

<sup>7</sup> State Water Resources Control Board. Report to the Legislature: Recommendations for Addressing Nitrate in Groundwater. February, 2013; pg. 5 (citing the UC-Davis Report identified in Footnote #3, above).

<sup>8</sup> State Water Resources Control Board. Report to the Legislature: Communities that Rely on Contaminated Groundwater. Jan., 2013. See discussion at pages 18-20 in the report. See also the United Nations Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation. A/HRC/18/33/Add.4 (Aug. 2, 2011); [http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4\\_en.pdf](http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4_en.pdf)

<sup>9</sup> State Water Resources Control Board. Report to the Legislature: Recommendations for Addressing Nitrate in Groundwater. February, 2013; pg. 5 (citing the UC-Davis Report identified in Footnote #3, above).

<sup>10</sup> State Water Resources Control Board. Report to the Legislature: Communities that Rely on Contaminated Groundwater. Jan., 2013; pg. 19.

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### **Regional Board's Priorities When Permitting Nitrate Discharges**

- 10) Where nitrate-nitrogen concentrations in groundwater are  $\leq 10$  mg/L, the Regional Board's primary management strategy will be to protect these high quality waters by regulating existing and future discharges in accordance with the state's Antidegradation Policy (SWRCB Res. 68-16).
  
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  - A) The immediate priority is to provide a safe drinking water alternative for those who are dependent on groundwater where nitrate concentrations are (or soon will be) greater than the Maximum Contaminant Level (MCL).
  
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  - C) The long-term priority is to encourage development of systems and infrastructure needed to attain water quality standards in groundwater through a program of "managed restoration" where it is feasible and practicable to do so. It is acknowledged that existing water quality impairment occurred over several decades and considerable time may be required to restore some groundwater basins to full attainment.

### **Minimum Baseline Requirements for ALL Nitrate Discharges to Groundwater**

- 12) Dischargers to groundwater will be required to:
  - A) Make "best efforts" to minimize nitrate discharges to groundwater. This includes periodic reassessments, by the discharger, to demonstrate that Best Management Practices (BMP) are being implemented.
  
  - B) Prepare appropriate technical analyses to estimate the concentration and mass of nitrate discharged to groundwater.
  
  - C) Characterize the current nitrate concentration in the receiving groundwater unless the nitrate concentration in the discharge is less than the baseline nitrate concentration or is less than 10 mg/L for groundwater basins where the nitrate concentration already exceeds the MCL.

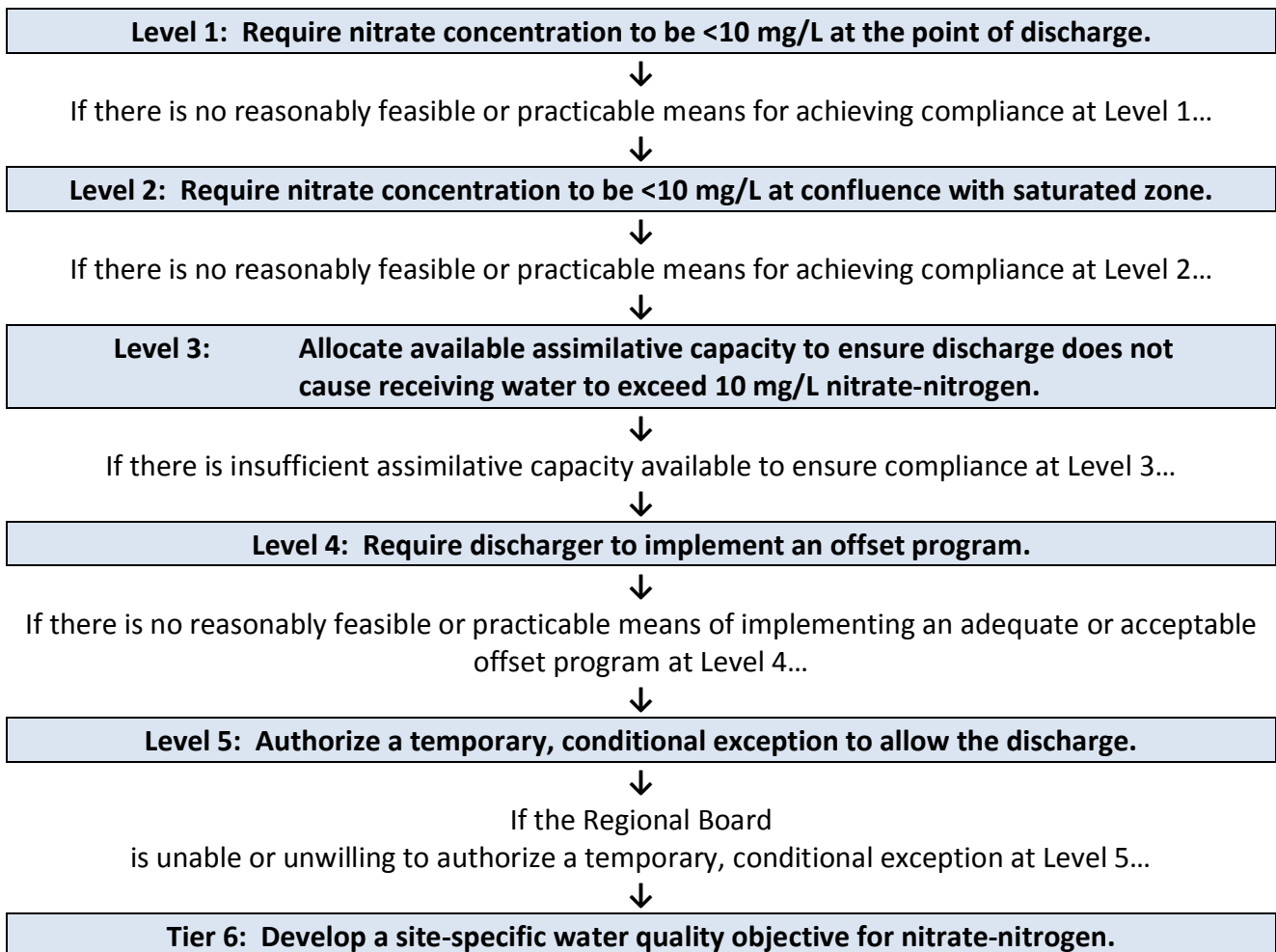


**Proposed Procedure for Authorizing Nitrate Discharges to Groundwater**

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These steps, which describe a range of Compliance Alternatives, are presented in hierarchical order. If the Regional Board elects to authorize additional nitrate discharges to groundwater, it will develop WDRs using the implementation alternative from the lowest possible level to ensure compliance. However, the availability of one or more compliance options in the Stepwise Procedure does not obligate the Regional Board to authorize any particular discharge. A more detailed explanation of the Stepwise Evaluation and Implementation Process follows Fig. 1.

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Stepwise Process for Issuing Permits to Discharge Nitrate to Groundwater**



- 14) **Level 1 - Comply at Point-of-Discharge:** the traditional approach for protecting the MUN beneficial use is to require nitrate concentrations in discharges to be less than 10 mg/L. And, this remains the Regional Board's preferred permitting strategy for controlling nitrate loads. Discharges will be expected to meet the Basin Plan objective for nitrate-nitrogen when there exists a reasonably feasible and practicable means for doing so by implementing "Best Efforts". The Regional Board may consider authorizing a compliance schedule where necessary to provide time for the discharger to implement adequate nitrate control measures. In addition, even when the nitrate concentration in the discharge meets the applicable water quality objective, an antidegradation analysis will be required if that concentration is higher than the nitrate concentration in the receiving groundwater.
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- 16) **Level 3 - Comply Using Assimilative Capacity:** if there is no reasonably feasible or practicable means to ensure nitrate concentrations in the discharge meet the water quality objective prior to its confluence with the saturated zone, and nitrate concentration in the receiving groundwater basin or sub-basin is <10 mg/L, then the Regional Board may (but is not obligated to) allocate some or all of the available assimilative capacity as needed to authorize the discharge provided that all of the following conditions are met:
- a) The discharge will not unreasonably affect beneficial uses or cause the nitrate concentration in the receiving water to exceed 10 mg/L. This determination will be made using the same methods and metrics that were used to demonstrate the initial availability of assimilative capacity. The Regional Board will also require adequate water quality monitoring to evaluate long-term trends in available assimilative capacity. A nitrate discharge budget (aka "wasteload allocation") may be needed to allocate available assimilative capacity across multiple dischargers.
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- a) The discharge, together with the proposed offset program, does not exacerbate an existing impairment to a degree worse than is likely to occur if the discharge were prohibited, and...
- b) The discharge, together with the proposed offset program, will result in better water quality or use(r) protection (e.g. risk reduction) than would occur if the discharge was prohibited, and...
- d) The proposed offset program is consistent with the long-term nitrate loading budget and the Regional Board's managed restoration strategy.
- e) The obligation to implement an offset program is codified as an enforceable provision of the WDRs. It may be necessary to characterize this obligation as an "interim, performance-based requirement" to ensure adequate oversight and enforceability. The Regional Board will endeavor to structure such requirements so that these offset projects remain eligible to receive state and federal grant funds when available.
- f) The Regional Board may require dischargers to provide additional financial assurance, through performance bonds or other similar instruments, to ensure offset projects are completed and continue to be operated as designed in the event dischargers are unable to meet their offset obligations in the future.

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- a) The receiving water is already impaired for nitrate and prohibiting the discharge would not eliminate that impairment or restore attainment of the MUN use, and...
  - b) The discharger demonstrates that is reasonably infeasible or impracticable to meet the nitrate objective at the point-of-discharge or prior to the confluence with receiving waters, and...
  - c) Authorizing the discharge would not materially increase the human health risk associated with the existing water quality impairment, and...
  - d) Prohibiting the discharge would cause widespread and substantial adverse socio-economic impacts to people residing in the area affected by the discharge, and...
  - e) The discharger agrees to provide water treatment, or an alternate water supply, that ensures a level of use(r) protection functionally-equivalent to that which would occur if nitrate concentrations in the groundwater basin met the applicable water quality objective, and...
  - f) The obligation to provide an alternate water supply is codified as a mandatory condition for authorizing the exception and an enforceable provision of the Waste Discharge Requirements, and...
  - g) The conditional exception is temporary with a term no greater than 10 years. However, the Regional Board may reauthorize the exception, for additional 10 year terms, provided that the discharger continues to meet all of the same eligibility criteria and has complied with the terms and conditions of the previous exception.
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- a) Segment the groundwater basin into sub-basins by separating areas of impairment from areas of attainment, and...
  - b) Subcategorize the impaired sub-basin as "MUN-Limited: requires additional treatment for drinking water purposes," and...
  - c) Establish a site-specific water quality objective (SSO) based on existing nitrate concentrations in the MUN-Limited sub-basin, and...
  - d) Implement WDRs to permit discharges with nitrate concentrations >10 mg/L but less than the SSO provided the discharger agrees to provide the necessary treatment for all impaired wells in the affected Management Zone approved by the Regional Board.
  - e) The discharger must demonstrate that the discharge will not unreasonably affect designated uses in adjacent basins or sub-basins.

# CV-SALTS Meeting Calendar

## 2014

1 January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

2 February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

3 March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

4 April						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

5 May						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

6 June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

7 July						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

8 August						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

9 September						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

10 October						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

11 November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

12 December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Notes
2nd or 3rd Thursdays
Dark Green Exec Comm Policy
RWQCB Update <b><u>Bold Underline</u></b>
Light Red conflicts
Lt. Green Hatch Exec Comm Admin
First or Second Friday
Yellow Salty 5
Lower San Jaquin River Committee
TAC Meeting
Dark in July & December for Policy
<b><u>State Board Presentation 1/21/14</u></b>
May 15 move to 22nd for CVCWA
Nov 13 vs 20 due to Thanksgiving