

CV-SALTS Executive Committee Meeting

April 9, 2015 - 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/join/253143981>

Posted 03-31-15

AGENDA

1) Welcome and Introductions - Chair

- a) Committee Roll Call and Membership Roster -5 min.
- b) Review/Approve Executive Committee Meeting Notes for March 19, 2015 – 5 min.

2) Nitrate Permitting Strategy - Addressing Key Issues and Concerns Raised by the EJ/EDC Representatives - Tim Moore (2 hrs)

- [Summary of EJ/EDC Concerns](#) and the CV-SALTS Status on Each Issue
- [Antidegradation Illustrations](#) for Nitrate Discharges to Groundwater
- [Revised Flowchart of Permitting Options](#)

11:30 am to 1:00 pm - Lunch on Your Own

3) Nitrate Permitting Strategy - Implementing the Groundwater Management Zone Concept - Tim Moore (2 hrs)

4) SNMP Development Schedule for 2015 - Tim Moore & Richard Meyerhoff (15 minutes)

5) Set next meeting dates

- April 16th Annual Update to Central Valley Regional Board (in Fresno)
- May 1st Technical Advisory Committee Meeting 10:00 AM-12:00 PM
- May 1st Admin Meeting 1:00 PM-2:30 PM
- May 21st Policy session

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.



Summary of EJ/EDC Concerns and the CV-SALTS Status on Each Issue

Issues Related to Estimation and Allocation of Assimilative Capacity

- 1) *CV-SALTS is proposing to apply new methods of measuring assimilative capacity by averaging water quality over a 3-dimensional area rather than specific points of compliance. This approach will, by design, create a condition of pollution or nuisance that disproportionately impacts the most vulnerable groundwater consumers.*

Estimating assimilative capacity based on the average concentration in the groundwater basin or sub-basin is not a "new" method proposed by CV-SALTS, it is the method established by the State Board in the 2009 Recycled Water Policy. Moreover, the method used to measure assimilative capacity is not related to the procedure used to determine points of compliance. Points of compliance are determined separately and are specified at the time Waste Discharge Requirements are adopted. And, regardless of which method is used to calculate assimilative capacity, the Regional Board is not authorize discharges to lower water quality if doing so would cause pollution or nuisance to occur. Therefore, when a discharger seeks an allocation of assimilative capacity they must demonstrate that adverse

- 2) *CV-SALTS proposes to calculate available assimilative capacity based on estimates of water quality throughout the entire groundwater basin, including estimates of water quality below the production zone.*

CV-SALTS briefly discussed, but rejected, this approach. Instead, the Executive Committee directed the technical consultants to develop a mathematical procedure for estimating the volume-weighted average TDS and nitrate concentration of any given groundwater basin or sub-basin based as required by the Recycled Water Policy. The estimate is to be based on the best available well data from the existing production zone. The technical consultants have not been asked to provide estimates of water quality below the production zone.

- 3) *CV-SALTS proposes to estimate assimilative capacity based on the difference between existing water quality and the water quality objective. This is inappropriate as it provides no buffer to guard against variation in discharge quality and presumes that we have a more precise understanding of groundwater hydrology and pollutant loadings than we actually do.*

The Recycled Water Policy defines assimilative capacity as the difference between existing water quality and the water quality objective (§9-c-1). However, CV-SALTS agrees that it would be prudent for the Regional Board to apply a "buffer" when deciding whether or not to allocate some of that assimilative capacity. Doing so would help account for uncertainty in the data. However, given the size and complexity of the Central Valley region, a single uniform buffer may be inappropriate. Therefore, the SNMP will likely recommend that site-specific buffers be developed when groundwater Management Zones are established. Until then, CV-SALTS will also recommend that a default buffer be used pending more site-specific analysis.

- 4) *CV-SALTS proposes to allow regulators to allocate all assimilative capacity to a single discharger without considering other dischargers in the area and without considering prior discharges of nitrate that may still be passing through the vadose zone.*

CV-SALTS is not making such a proposal. On the contrary, CV-SALTS agrees that the Regional Board should take into consideration other discharges in the area deciding when and how to allocate any available assimilative capacity for a given groundwater basin or sub-basin. In addition, the SNMP will continue to rely on the trigger thresholds described in the Recycled Water Policy (10% for a single discharger; 20% for all dischargers to the same basin) and it will emphasize the need to periodically reassess available assimilative capacity.

- 5) *CV-SALTS has not provided a clear description of how Management Zones will be identified. In particular, what will prevent dischargers from drawing boundaries in a manner designed to maximize available assimilative capacity rather than addressing the people adversely affected by groundwater pollution?*

CV-SALTS agrees that the SNMP must describe how Management Zones will be identified. The Executive Committee is committed to completing this task before the SNMP is submitted to the Regional Board in the spring of 2016. The purpose for creating Management Zones is not merely to authorize some discharges but also to provide a mechanism for ensuring that any adverse effects that may result from permitting such discharges are mitigated. All proposed Management Zones must be approved by the Regional Board through the normal public hearing process and it is inconceivable that they would accept any proposed Management Zone that is based on cynical and self-serving gerrymandering designed to benefit one group of stakeholders at the expense of the another.

Issues Related to Mitigation Requirements for Offset Programs

- 6) *The offset program currently proposed by CV-SALTS is not committed to fully mitigating the adverse impacts of pollution and water quality degradation. There is no assurance that an offset program would mitigate impacts on all affected communities including those reliant on small systems or private domestic wells.*

CV-SALTS is committed to the principle that proposed offset programs must fully mitigate the adverse impacts of permitted discharges; this includes communities that are reliant on small systems or private domestic wells and the SNMP will so state. CV-SALTS is working with the Alta Irrigation District to develop a prototype Offset Project that will serve as a proof-of-concept for the Management Zone approach and demonstrate the overall effectiveness of Alternative Compliance Programs.

- 7) *Alternate Compliance Programs must not result in disproportionate impact on the most vulnerable communities. Alternate Compliance Programs must provide transparent and enforceable assurances that vulnerable populations will be protected from impacts by current and future actions and dischargers.*

CV-SALTS concurs with that Alternate Compliance Programs must not result in disproportionate impact on the most vulnerable communities and must provide transparent means to measure and enforce compliance with all assurances made in connection with the program. The specific assurances that should be provided in any given ACP proposal are still being discussed by the Executive Committee. The Alta Irrigation District prototype help us develop these details.

- 8) *Mitigation programs should ensure that the increased costs of drinking water due to the need for nitrate treatment or development of alternative sources due to nitrate contamination is fully mitigated.*

CV-SALTS concurs that permittees must mitigate the incremental cost of their nitrate discharges on downgradient wells. However, they may not be solely responsible for remediating all nitrate contamination where other previously unregulated sources (e.g. nearby septic systems) are also partially contributing to the impairment. The strategy proposed by CV-SALTS is intended to provide a path-to-compliance for all of the responsible sources and affected wells in each Management Zones.

Issues Related to Selection and Implementation of Offset Programs

- 9) *CV-SALTS has not developed a process to determine what an appropriate offset/mitigation program would be, who would receive funding, how dischargers would be assessed for the increasing mitigation costs, or how impacted communities would be involved in the determining the course of the program.*

CV-SALTS accepts the obligation to develop a more detailed process for evaluating the acceptability of any proposed offset/mitigation program. The SNMP will include a comprehensive checklist of all the major issues that must be addressed when an offset/mitigation proposal is prepared. The final details are likely to vary from project to project and will be thoroughly vetted through an open public hearing process as the Regional Board considers whether or not to approve the proposed offset program. CV-SALTS will work closely with all stakeholders, including the economically-disadvantaged communities, to develop appropriate decision criteria that ensure offset commitments are appropriate and commensurate with the regulatory relief being sought. The Alta Irrigation District project provides an excellent opportunity to develop and test the proposed approach under real world conditions.

- 10) *Any offset/mitigation program to provide safe drinking water must be developed and administered independently from the discharges and should be driven by the community that has been adversely affected by groundwater pollution.*

CV-SALTS believes that an offset/mitigation program is likely to produce the best real-world results when it is developed and administered jointly by the affected communities and the dischargers. This necessarily requires that the program also be reviewed, approved, overseen and enforced by independent state authorities. Ultimately, since the discharger's compliance is dependent upon effective mitigation, they have a right to remain closely involved in order to ensure full and timely implementation of the offset/mitigation project.

- 11) *Dischargers must not be allowed to craft offset projects that provide the best economic solution for themselves but not the best drinking water solution for the impacted communities in the short-term or the long-term.*

Because offset and mitigation programs are intended to provide an alternate path to compliance these programs must be approved, in advance, by the Regional Board through the normal public hearing process. It is extremely unlikely that any proposed offset program will be approved unless it provides a fair and reasonable solution for both the dischargers and the impacted communities. Joint development and implementation also provides an effective means to overcome some of the resource barriers, technical barriers and governance barriers that have previously hindered more timely implementation of safe drinking water solutions.

Issues Related to Mitigating Future Effects

- 12) *An offset program may not provide sufficient assistance to current or future residents who are disproportionately impacted by nitrate contamination ... Any offset program proposed in the SNMP must effectively mitigate the impacts of pollution on all drinking water consumers adversely impacted by current and future degradation and pollution.*

CV-SALTS concurs that SNMP must include a clear statement that offset programs are required to effectively mitigate the impacts of pollution on drinking water consumers adversely affected by the permitted discharges. It may be appropriate to use one approach to protect existing wells and a different approach to prevent future residents from drilling new wells in areas where water quality does not meet drinking water standards. CV-SALTS believes this dual-strategy should be coordinated through implementation of the Groundwater Sustainability Act. In addition, the Regional Board must periodically review and reauthorize all offset programs. This provides a means to ensure the offset program is providing effective long-term mitigation.

- 13) *Because pollution of drinking water supplies will continue after dischargers attain water quality standards, permits must include mitigation funding for treatment of impacted drinking water well until such time as those wells meet water quality standards.*

CV-SALTS concurs that this issue must be addressed as part of the Regional Board's review and approval process for any proposed ACP. However, the specific assurances that should be provided as part of any given ACP proposal are still under consideration in the CV-SALTS Executive Committee. The AID prototype project will be used to help determine what sort of assurances will be necessary in order to authorize such an approach.

- 14) *Immediate and long-term solutions that provide mitigation through drinking water projects and programs must be the best solution for the community served with respect to water quality, affordability and sustainability. This requires a community-driven process to identify, develop and oversee drinking water projects.*

CV-SALTS concurs that drinking water projects must assure that water quality meets drinking water standards, are affordable and are sustainable. As a practical matter, it is extremely unlikely that the Regional Board will approve an offset program if the local community does not fully support the proposed alternative. Therefore, CV-SALTS agrees that the affected communities must be intimately involved throughout the process of identifying, developing and overseeing all drinking water projects.

Issues Related to Improving Groundwater Quality

- 15) *The SNMP (and related Basin Plan amendments) proposed by CV-SALTS will permit continued water quality degradation as well as pollution and nuisance.*

The SNMP is being structured to comply with the state Antidegradation Policy (Res. No. 68-16). That Policy only permit lower water quality if doing so would provide "maximum benefit" to the people of the state. Moreover, the Policy prohibits lowering water quality if doing so would cause a pollution or nuisance. Therefore, the SNMP will clearly state that Offset Projects and other Alternative Compliance Programs must fully mitigate any adverse effects from the permitted discharges on downstream drinking water consumers in order to avoid causing a pollution or nuisance.

- 16) *CV-SALTS proposed approach does not impose a strict timeline to implement practices designed to end such degradation or restore water quality.*

CV-SALTS does intend to develop a more detailed implementation schedule for inclusion in the SNMP. In order to develop such a schedule, CV-SALTS will soon contract with engineering consultants to prepare a technical analysis of nitrate control and remediation strategies similar to that which was recently undertaken for salinity management in the Central Valley (SSALTS). A timeline with regulatory milestones cannot be developed until this technical analysis is complete. It should also be noted that, in some cases, it may not be feasible or practicable to fully restore a groundwater basin or sub-basin. In such instances, CV-SALTS believes it is more appropriate to focus available resources on implementation strategies designed to assure end-users a reliable alternative supply of safe drinking water.

- 17) *CV-SALTS proposed approach does not seem to require anything to actually restore or improve groundwater quality related to nutrient management.*

CV-SALTS intends to develop a long-term nitrate management strategy for inclusion in the SNMP and will soon contract with technical consultants to prepare a preliminary alternatives analysis. This issue is scheduled for more detailed discussion in late 2015 and early 2016.

- 18) *The SNMP must require effective, measurable and feasible methods for reducing salt and nutrient loading and restoring degraded aquifers.*

CV-SALTS agrees that the SNMP should emphasize the need for effective, measurable and feasible methods for reducing salt and nutrient loading to groundwater using Best Management Practices. CV-SALTS also shares the long-term goal of restoring degraded aquifers where it is feasible and practicable to do so while recognizing that success will likely take many decades to achieve.

Issues Related to Requiring "Best Efforts" and "BPTC"

- 19) *CV-SALTS has made no progress defining what constitutes "best efforts" or "Best Practicable Treatment or Control" (BPTC) to reduce degradation, pollution or nuisance.*

Over the years, the Regional Board and State Board have issued many decisions that provide guidance for determining what constitutes "best efforts" or "BPTC." CV-SALTS has made a concerted effort to assemble that guidance into one document that identifies all of the key factors that must be considered. It would be inappropriate for CV-SALTS to develop new definitions for words and phrases that have such statewide importance. Instead, CV-SALTS believes it would be better to develop more precise definitions as part of the State Board's initiative to update the Antidegradation Policy.

- 20) *CV-SALTS is not actively pursuing work on "best practices" and it is unclear whether any specific practices will be required in the final SNMP.*

Current Waste Discharge Requirements (WDRs) already include extensive requirements for implementation of Best Management Practices (BMPs), as well as extensive study requirements to evaluate effectiveness of those BMPs and to develop new BMPs. The SNMP is not the place to proscribe specific BMPs, however the SNMP will state that the Regional Board should continue to require dischargers to identify the feasible and practicable BMPs within their respective industries. In addition, each industry will be expected to develop a program to track BMP implementation and demonstrate BMP effectiveness for their dischargers.

- 21) *Any Alternate Compliance Program must require that permittees immediately implement maximum efforts to protect groundwater from degradation and pollution.*

The SNMP will recommend that any proposed ACP must demonstrate that "Best Practicable Treatment or Control (BPTC) consistent with maximum benefit to the people of the California" has been implemented as required by the state Antidegradation Policy. The Regional Board has made clear its intent to continue requiring dischargers to make "Best Effort" to minimize pollution; the SNMP will not change this existing policy.

Issues Related to Water Quality Standards

- 22) *CV-SALTS is recommending that MUN designations be reclassified or declassified in some areas. This may allow contaminated aquifers to be de-designated even if the groundwater is still a source of supply for domestic well users.*

CV-SALTS is only proposing to reclassify or declassify MUN designations in a manner consistent with the State Board's "Sources of Drinking Water Policy" (Res. 88-63). Any proposed de-designation or sub-classification must be approved by the Regional Board and State Board through the normal public hearing process. There is no possibility that any proposed reclassification or de-designation will be approved if a groundwater is still serving as a source of supply for domestic well users unless those users are assured a safe and permanent drinking water alternative.

- 23) *CV-SALTS is proposing to allow degradation up to the Maximum Contaminant Level (MCL) and does not consider the need to build in a buffer to protect against exceedances...*

The need to develop buffers was addressed in #3 above. However, CV-SALTS does not believe it is prudent to encourage degradation all the way up to the MCL for nitrate. Nevertheless, in those areas where the MCL is already being (or is likely to be) exceeded, strict compliance with the Water Quality Objective will not do much to improve the quality of drinking water for many decades. Therefore, the SNMP will recommend new regulatory tools designed to require more rapid and widespread implementation of safe drinking water alternatives in the short-term while implementing a "managed restoration" strategy over the long-term.

- 24) *CV-SALTS is proposing to revise downward the water quality objectives for secondary contaminants with no corresponding mitigation requirement.*

CV-SALTS is considering a strawman proposal to delete the Secondary MCLs, as numeric water quality objectives, from the Basin Plan. CV-SALTS is also considering an approach that would retain the Secondary MCLs as potential numeric translators of the general narrative objective governing "Chemical Constituents" provided that the full text of §64449 (that was inadvertently omitted when the objectives were adopted) also be included with the table of Secondary MCLs. This will ensure that these specific parameters are regulated in accordance with the original intent of the Title 22 drinking water standards. It would also help ensure that dischargers are not held to more stringent requirements than those actually imposed on drinking water purveyors. Mitigation will be required where necessary to avoid unreasonably affecting water supply operations stream/downgradient of the discharge. CV-SALTS is scheduled to discuss this issue and make a final recommendation for the SNMP in late spring or early summer of 2015.

Other Miscellaneous Issues

- 25) *The program and permits must require accurate, verifiable and transparent reporting of nutrient application and other relevant data to adequately manage, protect and mitigate impacts from current discharges.*

CV-SALTS concurs that accurate, verifiable and transparent reporting of relevant data is essential. To-date, there has been on discussion as to what constitutes relevant data. CV-SALTS has scheduled a meeting later this year to develop appropriate monitoring requirements for the SNMP.

- 26) *An offset program may fail to reduce a discharger's regulatory burden or costs sufficiently to make participation worthwhile or may be more expensive than implementing additional BMPs to achieve compliance.*

This is true. If a dischargers can demonstrate compliance with water quality objectives by implementing more cost-effective BMPs, then it is unlikely that they would need to rely on offsets or propose an Alternative Compliance Program. The ACP option is most likely to be used when there is no other feasible/practicable means of achieving compliance.

- 27) *CV-SALTS is proposing to define "low vulnerability" groundwaters as those with Nitrate-N concentrations less than 8 mg/L provided there is no long-term trend toward further degradation. Using 8 mg/L as a threshold is inappropriate because concentrations greater than 5 mg/L already trigger notification and monitoring requirements for drinking water systems.*

This comment refers to a "strawman" draft document that has not been discussed by the Executive Committee. CV-SALTS has not developed any recommendations on this issue.

- 28) *The SNMP should encourage strategic use of water management practices, including recycled water and recharge) to improve local water supply and quality.*

CV-SALTS concurs with this recommendation and is constructing the draft SNMP to encourage Integrated Water Resource Management including greater use of recycled water, increased stormwater harvesting, and implementing the SWRCB's pragmatic concept of "right water."



Antidegradation Illustrations for Nitrate Discharges to Groundwater

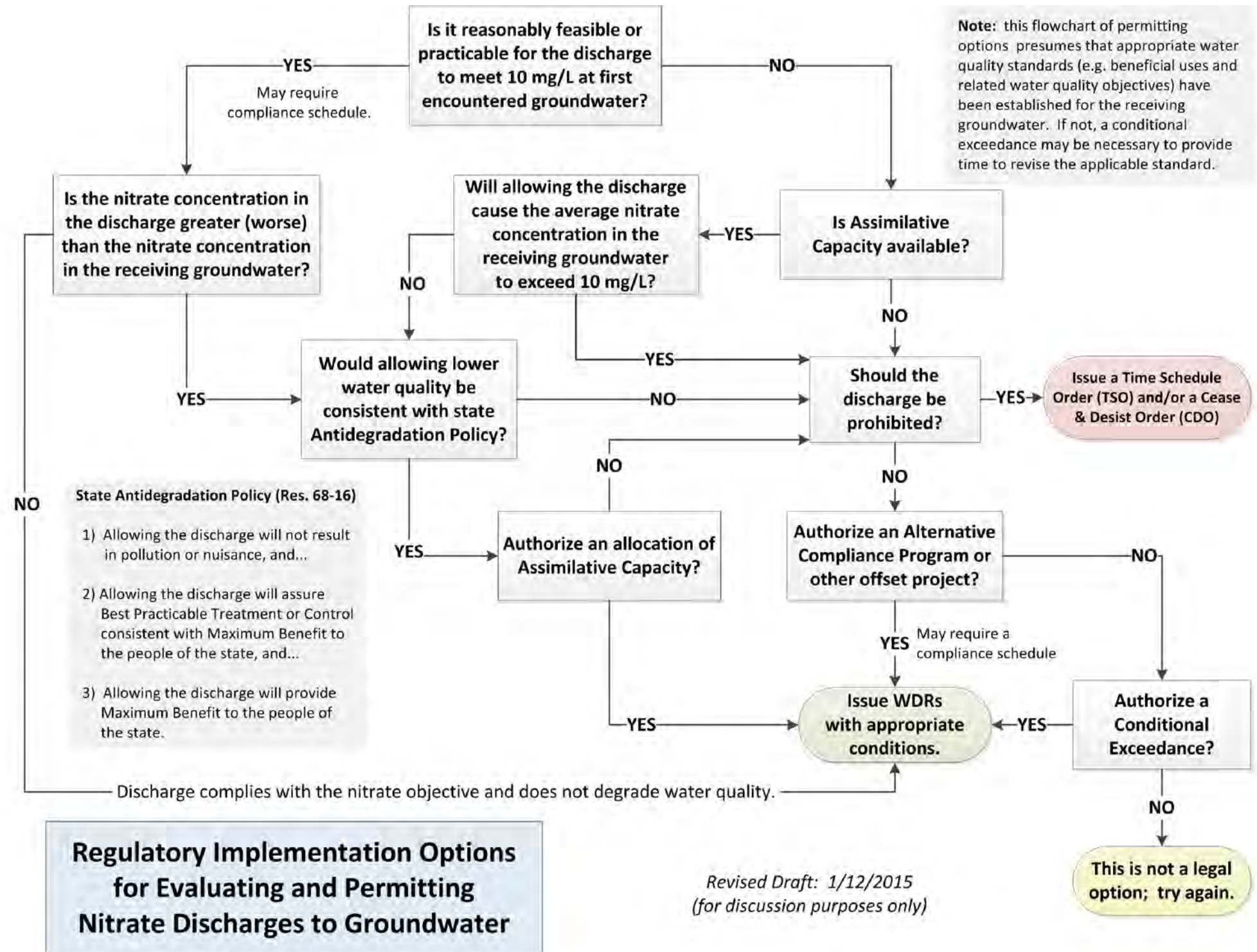
Scenario	F.E.G.	Discharge Conc.	Volume-Weighted Average in Mgt. Zone			Down-gradient Drinking Water Well		
			Current	+20 yrs. w/o discharge	+20 yrs. w/ discharge	Current	+20 yrs. w/o discharge	+20 yrs. w/ discharge
A	20	18	5	7	6 ↓	18	20	19 ↓
B	20	30	5	7	8 ↑	18	20	21 ↑
C	20	18	5	7	6 ↓	8	12	11 ↓
D	20	30	5	7	8 ↑	8	12	13 ↑
E	20	18	5	7	6 ↓	8	9	10 ↑
F	20	30	5	7	8 ↑	8	9	11 ↑
G	3	8	1	1	2 ↑	1	1	2 ↑

Note: values represent nitrate-nitrogen (mg/L); red > MCL; green < MCL; arrows indicate change in concentration.

Context:

- 1) Proposal to establish a Management Zone.
- 2) Permit to cover all NPS discharges to groundwater in the Management Zone.
- 3) Dischargers propose to provide alternative drinking water supply for all nitrate-impaired wells in the Management Zone.

Question: For each scenario, is the proposed discharge and associated ACP eligible to be authorized using an allocation of assimilative capacity?



CV-SALTS Meeting Calendar

2015

1 January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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2 February						
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3 March						
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5 May						
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6 June						
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8 August						
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9 September						
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11 November						
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12 December						
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Notes
Light Red conflicts
2nd or 3rd Thursdays
Dark Green Exec Comm Policy
Fridays at 1:00 pm
Lt. Green Hatch Exec Comm Admin
Yellow Salty 5
Lower SJ River Committee
TAC Meeting
March 27th
Regional Board Presents 4-16/17
State Board Presentation 1/20/15
Wednesday Meetings are DRAFT
May be held by Webinar or
in person in Sacramento.
June 17th Held at Farm Bureau