

Program for Control and Permitting of Nitrate Discharges to Groundwater

Basin Plan Element		No Action Alternative	SNMP Recommendation	Alternative/Modified Recommendations	Notes
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">General Overview</p> <p>Establishment of a Region-wide, Long-term, and Sustainable Nitrate Control Program for groundwater in the Central Valley.</p>	Goals	Meet WQOs to protect beneficial uses	<p>Prioritized Management Goals:</p> <ul style="list-style-type: none"> - Ensure Safe Drinking Water Supply - Establish a Nitrate Balance - Develop/Implement long-term plan for restoration to meet Nitrate WQOs 	<p><u>Alternative:</u> Do not prioritize goals – begin restoration immediately</p> <hr/> <p><u>Alternative:</u> Include a goal to achieve balance and restore aquifer within 50 years</p>	
	Priorities/Timelines	No priorities or timelines – regulate individual discharges on a case-by-case basis	<p>Program applies to all groundwater throughout the Central Valley Region.</p> <p>Areas are prioritized to first address drinking water health risks due to elevated nitrate levels in groundwater</p> <ul style="list-style-type: none"> • Priority 1 Basins – within 1 year after effective date • Priority 2 Basins – within 2-4 years after effective date • Non-prioritized Basins – phased as resources allow and as determined necessary by the Executive Officer (EO) <p>Timelines are initiated upon receipt of a Notice to Comply (NOC).</p> <p>Initial prioritization was conducted as part of the Salt and Nitrate Management Plan based on 2000-2016 well data on nitrate concentrations. Nitrate Control Program does not prevent the Board or interested persons from requesting areas be re-prioritized. Additional factors for prioritizing areas can be considered on an ongoing basis by the Board:</p> <ol style="list-style-type: none"> 1. Degree to which areas with known drinking water contamination are addressed in a timely manner. 2. Additional data demonstrating nitrate concerns have or will be addressed. 3. Additional data demonstrating that initial prioritization is not representative of groundwater conditions and there is no risk for nitrate contamination to drinking water supplies. 4. Degree to which area actually has impacted drinking water users 5. Changes in groundwater basin boundaries by DWR 	<p><u>Addition</u> to SNMP Recommendation as a fourth priority level:</p> <ul style="list-style-type: none"> • Areas that are not part of a Basin – as determined necessary by the EO <hr/> <p><u>Alternative:</u> Only prioritize and address groundwater basins that are part of the Central Valley Floor</p> <hr/> <p><u>Alternative:</u> No phased approach to ensure safe drinking water and restore all groundwater basins.</p>	

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<p style="text-align: center;"><u>General Overview</u></p> <p>Establishment of a Region-wide, Long-term, and Sustainable Nitrate Control Program for groundwater in the Central Valley.</p>	<p style="text-align: center;">Permitting Approach</p>	<p>Individual or General Orders and Source control (Cleanup and Abatement Orders to mitigate contamination and/or Prohibition of Discharge)</p>	<p>1. Two compliance pathways:</p> <p>A. Individual Approach (default)</p> <p>B. Groundwater Management Zone Approach (optional but encouraged)</p>	<p><u>Alternative:</u> Include a third compliance pathway or procedure for permittees outside the Valley Floor</p>		
				<p><u>Alternative:</u> Only include the Individual Approach pathway in the Control Program (No Management Zone, only a permit-by-permit approach)</p>		
				<p>2. Pathway Selection - Permittees must select one of the two possible compliance pathways. SNMP is silent on whether or not a permittee can switch pathways after the initial selection.</p>		<p><u>Addition to SNMP Recommendation:</u> Permittees can switch pathways in between phases. Failure to comply with making a pathway selection may result in an enforcement action.</p>
				<p>3. Both pathways must ensure safe drinking water by:</p> <ul style="list-style-type: none"> - Assessing nitrate levels to groundwater - Identifying impacted groundwater users - Requiring an Early Action Plan for discharges causing or contributing to the impact 		
			<p>4. Priority for Implementation – requirements of the control program apply to all discharges of nitrate to groundwater. Existing permits will receive a timeline based on which priority area they fall under. New or expanding permits will have requirements immediately incorporated.</p>			

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Path A - Individual Approach	1. Nitrate Discharge Categories	Not applicable	<p>Dischargers will be categorized into 1 of the 5 Nitrate Discharge Categories below based in impacts to "Shallow Zone". Discharges in Categories 4 and 5 will require implementation of an Alternative Compliance Project.</p> <p>Nitrate Discharge Categories:</p> <p>Category 1 – No degradation Category 2 – De Minimis Category 3 – Degradation below Trigger Level (75% of WQO) Category 4 – Degradation above Trigger Level (75% of WQO) Category 5 – Discharge Above the Objective and No Available Assimilative Capacity</p>	<p><u>Alternative:</u> Dischargers will be categorized into 1 of 3 categories:</p> <p>Nitrate Discharge Categories: Category 1 – No degradation (baseline 1968) Category 2 – Degradation up to Trigger Level (75% of WQO) Category 3 – Pollution if above the Trigger Level (75% of WQO)</p>	
	2. Compliance Components and Timelines	Not applicable	<p>Compliance will be met via the following components:</p>		
			<p>a. <i>Initial Assessment/NOI</i> – 60 days within posting of Preliminary Management Zone Proposals (see Path B)</p>	<p><u>Modification to SNMP Recommendation:</u> Priority 1 Basins – 330 days after Notice to Comply Priority 2 Basins & Non-Prioritized – 425 days after Notice to Comply New or Expanded Dischargers – With Report of Waste Discharge</p>	
			<p>b. <i>Early Action Plan (EAP)</i>, required if discharger is causing any public water supply or domestic well to be contaminated by nitrate. – to be submitted with NOI</p>		
			<p>c. <i>Alternative Compliance Project (ACP)</i>, if needed for categories 4&5 – To be submitted with NOI</p>		
		<p>d. <i>Revised permits</i> – No clearly defined timelines provided in the SNMP for the Regional Board to revise permits</p>	<p><u>Alternative:</u> Regional Board will revise permits within one year of NOI, as resources permit</p>		

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Path A - Individual Approach	3. Allocation of Assimilative Capacity	No change in the way assimilative capacity is currently allocated. Compliance is typically based on the WQO being met near the top of the saturated zone.	<p>Use will be limited and implemented through permit requirements based on 5 categories of discharge as applicable:</p> <p>Category 1 – No Assimilative Capacity needed</p> <p>Category 2 – Discharges will use less than 10% available Assimilative Capacity over a 20-year period</p> <p>Category 3 – Using available Assimilative Capacity will not cause exceedance of trigger over a 20-year period. May require extra monitoring and trend evaluations.</p> <p>Category 4 – Use of Assimilative Capacity will exceed trigger over a 20-year period or receiving water is already at 50% of the WQO and volume-weighted average of the upper zone exceeds an acceptable annual increase in concentration. Requires an ACP.</p> <p>Category 5 – Discharge Above the Objective and No Available Assimilative Capacity. Will need to seek an exception. Requires an ACP.</p> <ul style="list-style-type: none"> Determination of Assimilative Capacity will consider receiving waters to be the “Shallow Zone” as defined in the SNMP: “The shallowest portion within the upper zone (e.g., uppermost 10% of the upper zone)” When discharge is in an areas that is covered by a Preliminary Management Zone Proposal, consideration must be given to the impact granting Assimilative Capacity to an individual has on those who are part of the management zone 	<p><u>Alternative:</u> Degradation above Trigger Level should require an Exception and not be granted any Assimilative Capacity</p> <p><u>Modification to SNMP Recommendation:</u></p> <ul style="list-style-type: none"> Category 4 – Remove reference to the 50% of the WQO in the receiving water Definition of “Shallow Zone” - several options are available: <ul style="list-style-type: none"> Use readily available data and information to calculate ambient nitrate concentrations for the shallowest ten percent (10%) of the domestic water supply wells in the Upper Zone of a groundwater basin/subbasin as defined and established in Region 5: Updated Groundwater Quality Analysis and High Resolution Mapping for Central Valley Salt and Nitrate Management Plan (June 2016); Conduct a site (or area) specific evaluation based on various types of available data and information, including but not limited to, depth and age of domestic wells in the area of concern, groundwater table, well completion report data, and other available and relevant information; or, An equivalent alternative approved by the Regional Water Board Executive Officer. 	<p>Tracking 10% over a 20 year period may be very difficult</p> <p>Exceptions used for WQO exceedance. Requiring 75% of the WQO creates a default objective.</p>
	4. Eligibility of Exceptions	No exceptions for nitrate	Use will be limited in Path A unless there is no feasible, practicable or reasonable means to meet WQO and it is not feasible, practicable or reasonable to prohibit discharge. Dischargers must meet applicable WDR requirements and implement an Alternative Compliance Project to mitigate impacts.		

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Path B - Management Zone Approach	1. Compliance Components and Timelines	Not applicable	Management Zones compliance will be met via the following components:	<u>Alternative:</u> Do not authorize use of the Management Zones	
				<u>Alternative:</u> Compliance timelines are not fixed, but at the discretion of the Board	
			a. <i>Preliminary Management Zone Proposal (PMZP)</i> – 270 days of receiving NOC	<u>Modification to SNMP Recommendation for:</u> Priority 1 Basins – 270 days after Notice to Comply Priority 2 Basins & Non-Prioritized – 1 year after Notice to Comply New or Expanded Dischargers – With Report of Waste Discharge	
			b. <i>Notice of Intent (NOI)</i> – 60 days within posting of the PMZPs	<u>Modification to SNMP Recommendation:</u> Priority 1 Basins – 330 days after Notice to Comply Priority 2 Basins & Non-Prioritized – 425 days after Notice to Comply New or Expanded Dischargers – With Report of Waste Discharge	
			a. <i>Early Action Plan (EAP)</i> – To be submitted with PMZP. Implemented no later than 60 days after submittal unless a letter of objection is provided to the discharger by the Central Valley Water Board within that 60-day period.	<u>Alternative:</u> Extend the timeline for implementation to be greater than 60 days after submittal.	
			b. <i>Final Management Zone Proposal</i> – submit within 180 days after PMZP submittal	<u>Modification to SNMP Recommendation:</u> Due 180 days after receiving comments from Regional Board on PMZP	
			c. <i>Management Zone Implementation Plan</i> (equivalent to Alternative Compliance Project) – developed based on the schedule identified in the Final Management Zone Proposal.	<u>Modification to SNMP Recommendation:</u> Due six months after FMZP is accepted by EO	
d. <i>Revised permits</i> – No clearly defined timelines provided in the SNMP for the Regional Board to revise permits	<u>Alternative:</u> Regional Board will revise permits, as needed, in conjunction with the public hearing process for revising or adopting permits to incorporate the Management Zone Implementation Plan.				

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Path B - Management Zone Approach	2. Allocation of Assimilative Capacity	No change in the way assimilative capacity is currently allocated. Compliance is typically based on the WQO being met near the top of the saturated zone.	May request Regional Board for allocation of assimilative capacity. May be based on the volume-weighted average of groundwater quality within the upper zone for nitrates within the boundary of proposed Management Zone. Must be consistent with the Antidegradation Policy, including implementation of BPTCs. Must ensure that users within the zone have safe short and long term drinking water supplies.	<u>Alternative:</u> No Allocation of Assimilative Capacity for Management Zones. Use Exceptions if compliance cannot be met in shallow groundwater.	Concern with potential impact on Assimilative Capacity in /outside the MZ.
	3. Eligibility of Exceptions	No exceptions for nitrate	May be granted when it is not feasible or reasonable to meet the WQO. Will be considered for the Management Zone as a whole. Requires a Management Zone Implementation Plan, which serves as an Alternate Compliance Project.	<u>Alternative:</u> Exceptions should not be granted if it is feasible for a discharger to comply. Recommend deleting consideration related to "reasonable".	
	4. Issuance of new/revised WDRs		Changes to WDRs occur after submittal of Management Zone Implementation Plan. Components of the Management Zone Implementation Plan will be incorporated into WDRs. This may be made individually or through a resolution that amends all applicable permits.		