

Proposed Modifications to the Basin Plans to Incorporate a Nitrate Control Program

CHAPTER 4 IMPLEMENTATION

The following paragraphs are proposed for addition to *Chapter 4 Implementation* of the Sacramento River and San Joaquin River and Tulare Lake Basin Plans within the proposed Salt and Nitrate Control Program at a location in the chapter to be determined.

Program for Control and Permitting of Nitrate Discharges to Groundwater

The Program for Control and Permitting of Nitrate Discharges to Groundwater in the Sacramento-San Joaquin River Basins and in the Tulare Lake Basin (Nitrate Control Program) applies to all groundwater basins that are designated with the municipal and domestic supply (MUN) beneficial use.¹

This amendment was adopted by the Regional Water Board on XX May 2018, and approved by the State Water Resources Control Board on X _____ 2018. The Effective Date of the Nitrate Control Program shall be X _____ 2018, the date of Office of Administrative Law approval.

I. Program Overview

The Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) stakeholder initiative developed a comprehensive salt and nitrate management plan (SNMP) for the Central Valley Region, which was submitted to the Central Valley Water Board in January of 2017. The SNMP is the basis for the Nitrate Control Program.

The SNMP and its supporting studies identified groundwater basins and sub-basins in the Central Valley that currently exceed the water quality objective for nitrate, which is set at the primary maximum contaminant level of 10 mg/L-N for drinking water. In addition, the SNMP and supporting studies identified that the cost for treating groundwater that exceeds 10 mg/L-N to be in the range of \$36 to \$81 billion, and in some scenarios would take more than 70 years for groundwater to meet the standard. Based on this and other information, the SNMP identified the need for a Nitrate Control Program that includes the following management goals:

- Goal 1 – Ensure a Safe Drinking Water Supply;
- Goal 2 – Achieve Balanced Salt and Nitrate Loadings; and,
- Goal 3 – Implement Managed Aquifer Restoration where reasonable, feasible and practicable.

¹ The implementation provisions in this Nitrate Control Program apply to discharges of nitrate to groundwater. To extent that the Regional Water Board uses other forms of nitrogen speciation (e.g., total Nitrogen and nitrite+nitrate) to address nitrate discharges, this Control Program would also apply in those circumstances.

The actual timeframe for meeting these three goals, and ultimately for all groundwaters that have the beneficial use designation of MUN to meet the water quality objective of 10 mg/L-N for nitrate, is largely unknown and will vary from basin to basin. Further, the SNMP recognized that for Goals 2 and 3 it may not be reasonable, feasible or practicable to achieve balanced loadings or restoration of groundwater in some basins/subbasins. For other basins, it may take multiple decades. In some limited cases, where restoration of the groundwater basin for MUN uses may not be reasonable, feasible or practicable it may be necessary for the Regional Water Board to consider de-designating MUN uses from that groundwater basin.

The Nitrate Control Program is prioritized to first address health risks associated with drinking water that exceeds the nitrate primary maximum contaminant level (i.e., nitrate drinking water standard). Priority Groundwater Basins/Subbasins² have been identified based on ambient nitrate conditions, and timelines have been established for implementation of the Nitrate Control Program in these prioritized basins and subbasins. Implementation of the Nitrate Control Program in groundwater basins/sub-basins that are not prioritized will occur as directed by the Regional Water Board's Executive Officer. In areas of the Central Valley where there are no identified groundwater basins or subbasins, the Nitrate Control Program will apply when the Regional Water Board's Executive Officer determines it is necessary and appropriate to address nitrate discharges to localized groundwater.

The Nitrate Control Program is implemented through a combination of Regional Water Board authorities. First, to ensure timely implementation of the Nitrate Control Program, a Conditional Discharge Prohibition will be established in the Basin Plans that will require that certain permittees begin to implement provisions of the Nitrate Control Program upon receiving a Notice to Comply issued by the Regional Water Board's Executive Officer. The Conditional Discharge Prohibition will assist in establishing enforceable conditions until the Regional Water Board revises permits to incorporate applicable requirements from the Nitrate Control Program or determines that existing permit requirements are adequate. Second, for certain other permittees subject to General Orders, the Regional Water Board will hold a hearing to consider amending such Orders within 18 months of the effective date of the Nitrate Control Program to incorporate timelines and milestones for complying with the Nitrate Control Program. Long-term implementation of the Nitrate Control Program is achieved primarily through Regional Water Board permitting actions (i.e., waste discharge requirements or conditional waivers).

Permitted dischargers within the prioritized basins and subbasins that have received notice must generally assess nitrate levels in groundwater used for MUN that may be impacted by nitrate discharge(s). The assessment, using readily available data and information, must determine if the groundwater in question is a safe, reliable source of drinking water with respect to nitrates. If the groundwater is impacted, and if the discharger is causing or contributing to an exceedance of nitrate in the groundwater in public water supply or domestic wells beyond the primary maximum contaminant level, then the permitted discharger shall submit an Early Action Plan (EAP) that includes specific actions and a schedule of implementation to address the immediate

² The prioritized Groundwater Basins/Subbasins identified in the public draft, including identification per DWR's Bulletin 118, are from Luhdorff and Scalmanini Consulting Engineers and Larry Walker Associates (2016a), and the Regional Water Board may adjust these priorities during the public review process.

needs of those drinking groundwater from public water supply or domestic wells that exceed the primary maximum contaminant level for nitrate.

For longer-term implementation of the Nitrate Control Program, the Regional Water Board's permitting actions specific to nitrate discharges to groundwater will fall within one of the two following approaches:

- Individual Approach (Path A) is the approach utilized when an individual discharger (or third party group subject to a General Order wishing to proceed under Path A) decides to comply with the nitrate requirements as an individual/third party, or in circumstances when a management zone is not an available option.
- Management Zone Approach (Path B) is the approach utilized when multiple dischargers/permittees elect to participate in a management zone as the preferred method for complying with the Nitrate Control Program.

Path A is considered the default permitting approach while Path B is an optional approach. Where appropriate, the Regional Water Board will encourage permitted dischargers to work cooperatively with each other and other stakeholders to implement the Nitrate Control Program through a Management Zone

The Nitrate Control Program provides the Regional Water Board with flexibility and authority to permit discharges of nitrate to groundwater using Alternative Compliance mechanisms rather than traditional permitting determinations. The Regional Water Board's options for Alternative Compliance include: (1) determining availability of assimilative capacity on a volume-weighted average basis for a management zone; (2) granting an exception for meeting nitrate water quality objectives in discharges and/or in groundwater; and, (3) offsets. To authorize Alternative Compliance through one of these options, the Regional Water Board must approve an Alternative Compliance Project as part of the authorization. A fundamental element of any Alternative Compliance Project is that it must ensure that groundwater users impacted by discharges of nitrates have access to drinking water that meets state and federal drinking water standards, and must provide specific milestones and timelines for meeting all three management goals of the program. In circumstances where it is not reasonable, feasible or practicable to meet management goal 2 and/or goal 3, permittees must still indicate how discharges of nitrate will be controlled to the extent that is reasonable, practicable and feasible.

The Nitrate Control Program protects high quality groundwater by establishing nitrate triggers. Nitrate triggers are not water quality objectives themselves. The Regional Water Board may authorize a discharge, or collective discharges in a Management Zone, to exceed a nitrate trigger level, but to do so the Regional Water Board must approve an Alternative Compliance Project, except in limited and unique circumstances.

II. Geographic Areas of Application

Considering the extent and size of the Regional Water Board's jurisdictional boundaries, it is necessary to categorize and prioritize the region's groundwater basins/subbasins based on

currently known ambient water quality conditions (where information is available), location (e.g., valley floor versus foothill and mountainous areas), and areas that are not part of an identified basin/subbasin.

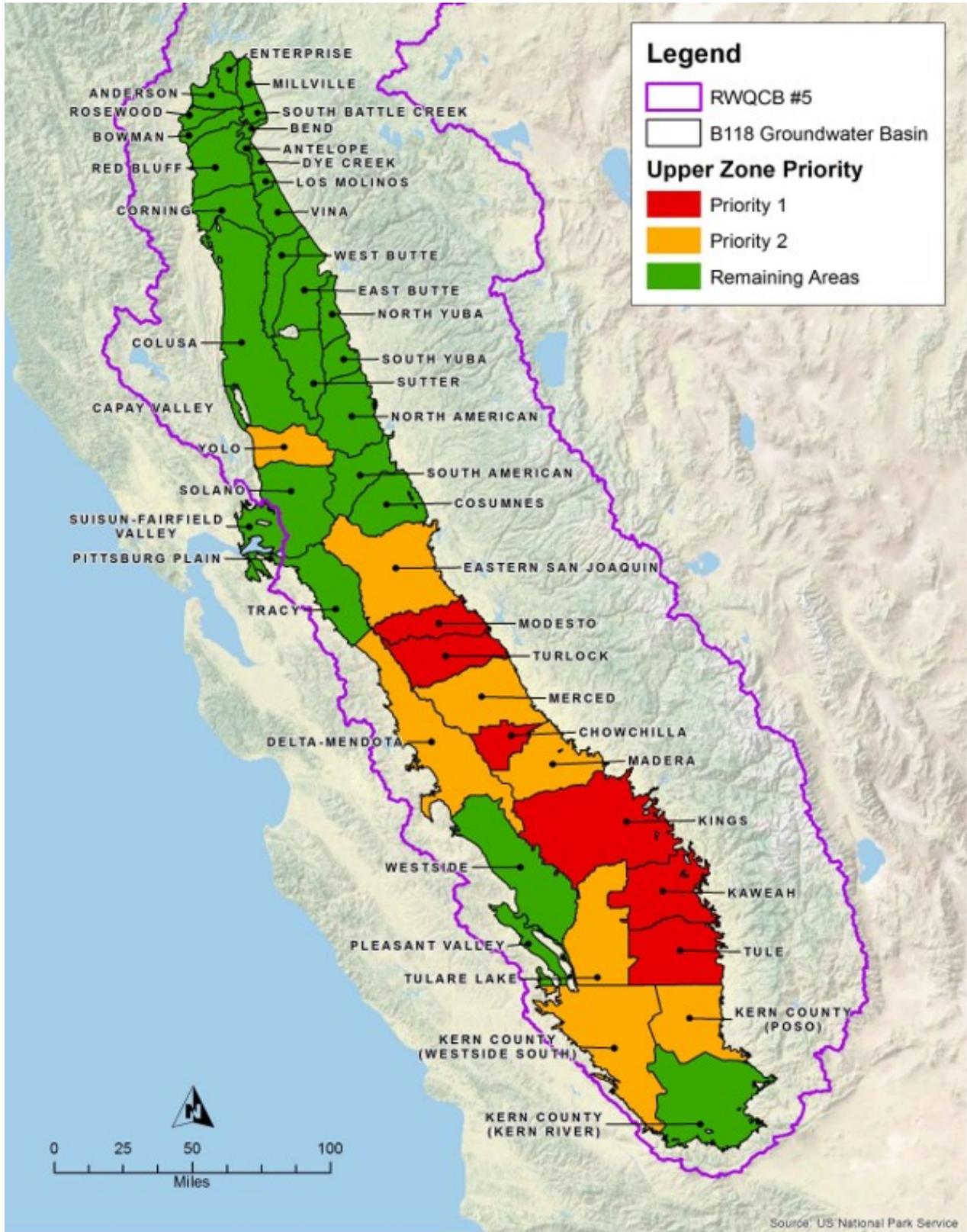
(a) *Priority Basins and Subbasins*

Basins/subbasins have been prioritized and within Priority 1 and 2 have been identified as having the most serious ambient water quality concerns for nitrate. Priority 1 and 2 Groundwater Basins/Subbasins are identified in Table X-1 and are depicted in Figure X-1.

TABLE X-1: PRIORITIZED DWR BULLETIN 118 GROUNDWATER BASINS/SUBBASINS

PRIORITY 1		PRIORITY 2	
5-22.11	Kaweah	5-21.67	Yolo
5-22.03	Turlock	5-22.04	Merced
5-22.05	Chowchilla	5-22.14	Kern County (Westside South)
5-22.13	Tule	5-22.12	Tulare Lake
5-22.02	Modesto	5-22.14	Kern County (Poso)
5-22.08	Kings	5-22-07	Delta Mendota
		5-22.01	Eastern San Joaquin
		5-22.06	Madera

Figure X-1: PRIORITIZED DWR BULLETIN 118 GROUNDWATER BASINS/SUBBASINS



(b) *Non Prioritized Basins/Subbasins*

Groundwater Basins/Sub-basins that are not currently prioritized are identified in Appendix X. These basins/sub-basins or areas with the basins/sub-basins may be designated by the Regional Water Board as a high priority on a case-by-case basis when determined necessary by the Regional Water Board.

(c) *Areas Within Regional Water Board Jurisdictional Boundary That Are Not Part of a Basin/Subbasin*

Due to geologic conditions, some areas within the Regional Water Board's jurisdictional area are not part of an identified groundwater basin/subbasin. These areas tend to be outside of the valley floor, and nitrate concerns in drinking water are generally not an issue of concern.

III. Regional Water Board Review of Priorities

No later than January 1, 2024, the Regional Water Board shall review the priorities listed in Table X-1, and may adjust these priorities after considering water quality-based factors, and other relevant information. Factors the Regional Water Board may consider in its review include, but are not limited to, the following:

- (1) Degree to which areas (or subareas) with known nitrate drinking water supply contamination will be addressed under the current prioritization;
- (2) Additional data/information provided by discharger(s) and/or other stakeholders within a basin/subbasin (or subarea) that demonstrates that the nitrate concerns have or have not been addressed or will be addressed via another program or activity;
- (3) Degree to which the area identified by water quality factors actually has impacted drinking water users (i.e., drinking water is predominately a surface water supply or drinking water supplies are primarily groundwater);
- (4) Changes in groundwater basin/subbasin boundaries by the Department of Water Resources, which may affect the spatial order as presented in Table X-1; and
- (5) Maximization of efficient use of resources, which may affect the number of basins/subbasins (or subareas) that may be included on the prioritized schedule of implementation.

IV. Issuance of Notices to Comply

(a) *Existing Permitted Dischargers*³

The Nitrate Control Program establishes timelines for implementation based on the priority designation of the groundwater basin/subbasin, or lack of location within a groundwater basin/subbasin. Implementation of the Nitrate Control Program for existing permitted dischargers occurs when notification is received from the Regional Water Board through the issuance of Notices to Comply. The Regional Water Board will issue Notices to Comply according to the schedule in Table X-2. The Executive Officer of the Regional Water Board retains discretion to adjust the timelines in Table X-2 based on available resources.

Table X-2

Basin Priority	Time for Issuance of Notice to Comply
Priority 1 Basins	As soon as is reasonably feasible after the effective date of the Nitrate Control Program, but no later than 1 year from xxxx (effective date).
Priority 2 Basins	Within 2 to 4 years after effective date of the Nitrate Control Program.
Basins/sub-basins not Prioritized	Based on available resources, and as determined necessary by the Executive Officer of the Regional Water Board.
Areas that are Not Part of a Basin	As determined necessary by the Executive Officer of the Regional Water Board.

(b) *New or Expanding Dischargers*

After the effective date of the Nitrate Control Program, new dischargers located in groundwater basin/subbasin (regardless of priority) or those with a material change to their operation that increases the level of nitrate discharged to groundwater must comply with the Nitrate Control Program and provide data and information as applicable. This provision does not apply to dischargers located in areas that are not part of a designated basin/subbasin unless the Executive Officer of the Regional Water Board determines based on the specific facts of the discharge that it should be subject to the Nitrate Control Program and the Executive Officer of the Regional Water Board notifies the discharger accordingly.

³ For the purposes of the Nitrate Control Program, the term “existing permitted dischargers” means dischargers subject to individual Waste Discharge Requirements, dischargers regulated as individual facilities under General Waste Discharge Requirements (e.g., facilities regulated under the Waste Discharge Requirements General Order for Existing Milk Cow Dairies), facilities or discharges subject to Conditional Waivers, or dischargers subject to General Waste Discharge Requirements that are regulated through a Third Party (e.g., dischargers regulated under Irrigated Lands Regulatory Program’s Third-Party General Orders). For those dischargers that are part of a third party group, notifications required by the Nitrate Control Program may be issued to and received from the Third Party group on behalf of their members, who in turn will be responsible for notifying its members.

(c) *Community Request*

Nothing in the Nitrate Control Program is intended to prevent or prohibit a community from specifically requesting that the Regional Water Board subject a basin, subbasin, or portion thereof to the Nitrate Control Program in advance of the timelines identified here.

V. Permitting Approaches

Long-term implementation of the Nitrate Control Program will occur through updates of existing waste discharge requirements or conditional waivers, or through the issuance of new waste discharge requirements or conditional waivers for new sources of nitrate. Permit actions must fall under one of the two following approaches:

- (1) Individual Permitting Approach (Path A): Individual requirements (or per a General Order); or,
- (2) Management Zone Approach (Path B): Participation in a Management Zone.

(a) *Path A –Individual Permitting Approach*

Path A applies to all permitted dischargers unless the discharger affirmatively elects to participate in the Management Zone Approach under Path B. For Path A, nitrate discharge impacts to groundwater are assessed in shallow groundwater underlying the area of discharge, otherwise referred to as the “Shallow Zone.” What constitutes the Shallow Zone in any given area may vary. To determine ambient nitrate concentrations in the Shallow Zone for purposes of the Nitrate Control Program only, several options are available:

- (1) 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 Zone⁴ 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);
- (2) 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,
- (3) An equivalent alternative approved by the Regional Water Board.

Based on the impact to the Shallow Zone and the quality of the discharge, nitrate discharges are to be characterized and placed into one of five categories (see Table X-3). Regional Water Board

⁴ Upper Zone is defined to mean, “the portion of groundwater basin, subbasin or management zone from which most domestic wells draw water. It generally extends from the top of the saturated zone to the depth to which domestic wells are generally constructed (screened). The lower boundary of the upper zone varies based on well construction information for a given basin or subbasin. The Corcoran Clay layer may define the lower boundary of the upper zone or the lower zone, pending the available well construction and groundwater use information.”

determinations regarding availability and allocation of assimilative capacity will be based on ambient water conditions in the Shallow Zone.

Further, to protect high quality groundwater throughout the Central Valley, a nitrate trigger level of 75% of the water quality objective for nitrate is established. The trigger level is not a water quality objective, but discharges that cause nitrate in the Shallow Zone to exceed a nitrate trigger may be subject to development and implementation of an Alternative Compliance Project.

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TABLE X-3: NITRATE DISCHARGE CATEGORIES

Category	Short Title	Discharge Quality⁵ and Impact to Groundwater
Category 1	No Degradation Category	Discharge is equal to or less than the applicable nitrate water quality objective (e.g., 10 mg/L of nitrate as Nitrogen), and the discharge is better than nitrate concentrations in the Shallow Zone.
Category 2	De Minimis Category	Nitrate concentrations in the Shallow Zone are better than the water quality objective. Estimated that discharge(s) will use less than 10% of the available assimilative capacity and will not cause nitrate concentrations in the shallow zone to exceed a nitrate trigger over a 20-year planning horizon.
Category 3	Degradation Below Trigger Level	Discharge occurs in a basin where concentrations in the volume-weighted upper zone are below an acceptable annual increase, ⁶ and nitrate concentrations in the Shallow Zone are better than the water quality objective. Estimated that discharge is more than de minimis (i.e., may use more than 10% of available assimilative capacity) but will not cause nitrate concentrations in the shallow zone to exceed nitrate trigger over a 20-year planning horizon.
Category 4	Degradation Above the Trigger Level	Nitrate concentrations in the shallow zone are better than the water quality objective. Estimated that discharge may cause the nitrate concentrations in the shallow zone to exceed the trigger level of 75% of the water quality objective over a 20-year planning horizon, but are expected to remain at or below the objective.
Category 5	Discharge Above the Objective and No Available Assimilative Capacity	Nitrate concentrations in the shallow zone are better than water quality objective and estimated discharge may cause nitrate concentrations in the shallow zone to exceed the water quality objective over a 20-year planning horizon; or, nitrate concentrations in shallow zone exceed water quality objective and discharge exceeds the water quality objective.

⁵ Discharge as used here is intended to mean the quality of the discharge as it enters the Shallow Zone. Thus, the quality of the discharge itself may exceed the standard but due to transformation and other variables, it meets or is better than the objective as it enters the Shallow Zone.

⁶ Acceptable annual increase: upper zone concentrations do not increase more than 0.1 mg/L NO₃-N per year using cumulative average annual increase over a five-year period. The cumulative average refers to an Olympic average, meaning that the highest and lowest sample results are removed; average is calculated from the remaining results. This helps address statistical outliers that otherwise may skew the results.

(b) *Path B –Management Zone Approach*

Discharges may elect to comply with the Nitrate Control Program by participating in a Management Zone. The Regional Water Board finds the use of Management Zones to be a regulatory tool that is both appropriate and preferable for many areas of the Central Valley, because the use of Management Zones can maximize resources to address the varying degrees of nitrate concentrations found in groundwater basins/sub-basins, and can provide a more integrated approach to developing local solutions for localized areas of contaminated groundwater. Management Zones are considered a type of “Alternative Compliance Project” and are subject to Alternative Compliance Project requirements. Table X-4 summarizes the characteristics, intent and purposes of a Management Zone.

Individual nitrate discharges participating in a Management Zone are not individually categorized. Rather, impacts to groundwater are assessed collectively in the upper zone, which is defined to mean, “the portion of groundwater basin, subbasin or management zone from which most domestic wells draw water. It generally extends from the top of the saturated zone to the depth to which domestic wells are generally constructed (screened). The lower boundary of the upper zone varies based on well construction information for a given basin or subbasin. The Corcoran Clay layer may define the lower boundary of the upper zone or the lower zone, pending the available well construction and groundwater use information.”

For a Management Zone, Regional Water Board determinations of availability and allocation of assimilative capacity are determined on a volume-weighted average of nitrate concentrations in the Upper Zone.

TABLE X-4: CHARACERTISTICS, INTENT AND PURPOSE OF A MANAGEMENT ZONE

<p><u>Characteristics</u></p> <ul style="list-style-type: none"> ▪ A defined area which incorporates a portion of a large groundwater basin(s)/subbasin(s) ▪ Encompasses all groundwater for those dischargers that discharge nitrate to said groundwater that have selected to comply with the Nitrate Control Program through participation in the defined Management Zone. ▪ Voluntarily proposed by those regulated dischargers located within the proposed management zone boundary that have decided to work collectively and collaboratively to comply with the nitrate control program.
<p><u>Intent and Purposes</u></p> <ul style="list-style-type: none"> ▪ Defined area that serves as a discrete regulatory compliance unit for complying with the Nitrate Control Program. ▪ Basis for the establishment of local management plans to manage nitrate within the management zone’s boundary. ▪ Participants work collectively to implement SNMP management goals: (1) safe drinking water, (2) achieving balance, and (3) restoring groundwater basins/subbasins (where reasonable, feasible and practicable) across the Management Zone. ▪ Where groundwater within the Management Zone boundary, and groundwater impacted by those dischargers within the Management Zone boundary, is being used as a drinking water supply, and where those drinking water supplies are impacted by nitrates and exceed or are likely to exceed nitrate drinking water standards in the foreseeable future, Management Zone participants will ensure the provision of safe drinking water to all residents in the area adversely affected by those dischargers of nitrates from those that are participating in the Management Zone. ▪ Ensure the provision of safe drinking water for the Management Zone through stakeholder coordination and cooperation. ▪ Work towards better resource management through appropriate allocation of resources. ▪ Regional Water Board imposes reasonable provisions collectively for the Management Zone, and its discharger participants, that recognize the need to prioritize nitrate management activities over time for compliance with the Nitrate Control Program and the SNMP’s Management Goals.

VI. Implementation of Permitting Approaches

Due Dates for Deliverables

To implement the Permitting Approaches set forth in Section V. of this control program, permitted dischargers need to provide the Regional Water Board with information regarding their discharge of nitrate. Deadlines for submitting this information varies based on the priority of the basin/subbasin, and the permitting approach selected. Table X-5 identifies the various deliverables based on which permitting approach a discharger seeks to follow, and associated due dates for these deliverables.

TABLE X-5: SUMMARY SCHEDULE FOR IMPLEMENTATION

Deliverable	Application	Due Dates^A	
<i>Initial Assessment/Notice of Intent</i>	Path A All existing and new permitted dischargers, unless, actively participating in efforts to develop a preliminary management zone proposal. Path B N/A	Existing Dischargers - Priority 1 Basins/Subbasins	330 days after receiving Notice to Comply
		Existing Dischargers - Priority 2 Basins/Subbasins & Non-Prioritized Basins	452 days after receiving Notice to Comply
		New or Expanding Dischargers	With Report of Waste Discharge
<i>Preliminary Management Zone Proposal</i>	Path A N/A Path B Permitting discharges electing Path B that are actively participating in development of Preliminary Management Zone Proposal.	Existing Dischargers - Priority 1 Basins/Subbasins	270 days after receiving Notice to Comply
		Existing Dischargers - Priority 2 Basins/Subbasins & Non-Prioritized Basins	1 year after receiving Notice to Comply
		New or Expanding Dischargers	With Report of Waste Discharge
<i>Early Action Plan</i>	Path A and Path B Path A - Required if discharger is causing any public water supply or domestic well to be contaminated by nitrate. Path B - Required element of Preliminary Management Zone Proposal for public water supply and domestic wells within the Management Zone area that are contaminated by nitrate.	Path A - To be submitted with Notice of Intent Path B - To be submitted with Preliminary Management Zone Proposal	

Deliverable	Application	Due Dates^A
<i>Alternative Compliance Project if needed</i>	Path A—Required for Category 4 and Category 5 Dischargers Path B—Equivalent to Management Zone Implementation Plan noted below	Path A—To be submitted with Notice of Intent
<i>Final Management Zone Proposal</i>	Path B	180 days after receiving comments from Regional Water Board on Preliminary Management Zone Proposal
<i>Management Zone Implementation Plan</i>	Path B	Six (6) months after the Final Management Zone Proposal is accepted by the Executive Officer of the Regional Water Board.

- A. The Executive Officer of the Regional Water Board retains the discretion to extend the due dates identified here for submittal of identified deliverables if proper justification is provided to the Executive Officer at least 30 days prior to required date for submittal.

Deliverables

(1) Initial Assessment/Notice of Intent (Path A)

Permitted dischargers, or those seeking a permit to discharge that includes the discharge of nitrate, must prepare an Initial Assessment and Notice of Intent, unless the discharger is actively engaged in developing a Management Zone proposal and is identified as an initial participant in a Preliminary Management Zone Proposal submitted pursuant to section VI.c.

A. *Existing Permitted Dischargers*

Upon receipt of a Notice to Comply, existing permitted dischargers shall conduct an initial assessment of their discharge as it relates to nitrate. The initial assessment shall be submitted as part of a Notice of Intent and must include the following:

- (i.) Estimated impact of discharge of nitrate on the Shallow Zone over a 20-year planning horizon;
 - May be estimated based on a simple mass balance calculation assuming 20 years of loading as nitrate reaches the water table.
- (ii.) Initial assessment of water quality conditions based on readily available existing data and information.

- May use default information in or referenced by, the Central Valley SNMP or provide supplemental information that includes water quality conditions in the shallow and upper zones;⁷
- (iii.) Evaluation of the discharge, and determination if the discharge is causing any public water supply or domestic well to be contaminated by nitrate;
 - (iv.) If causing contamination of a public water supply or domestic well, an Early Action Plan; Identification/summary of current treatment and control efforts, or management practices;⁸
 - (v.) Identification of any overlying or adjacent Management Zone;
 - (vi.) Identification of Category of the Discharge, and information to support the categorization;⁹
 - (vii.) Information necessary to support request for allocation of assimilative capacity, if applicable;
 - (viii.) For category 4 dischargers, identification of an Alternative Compliance Project or justification as to why the Regional Water Board should not require implementation of an Alternative Compliance Project.
 - (ix.) For category 5 dischargers, information as required to support an Application for an Exception pursuant to the Exceptions Policy, which would include identification of an Alternative Compliance Project.

Previous groundwater assessments conducted by the discharger (or third party group on behalf of collective dischargers), and/or antidegradation analyses that have been submitted and approved by the Regional Water Board's Executive Officer may satisfy all or part of initial assessment requirement.

B. Recycled Water Permittees

Permittees for recycled water that meets the requirements of Title 22 of the California Code of Regulations may substitute the information requested above with the same information that is otherwise required for a Recycled Water Application under State Water Resources Control Board Order No. 2014-0090-DWQ, General Waste Discharge Requirements for Recycled Water Use.

C. New Dischargers, or Existing Permitted Dischargers Proposing Material Changes to their Regulated Discharge

⁷ Dischargers may rely on previous groundwater assessments conducted by the discharger, assessments conducted by others that are applicable and relevant, or previous antidegradation analysis that have been submitted to the Central Valley Water Board.

⁸ If the discharger seeking compliance through this option is a third party submitting the NOI on behalf of the individual members of the third party, the third party will need to take reasonable efforts to summarize the management practices being used by its members with respect to protecting groundwater quality from the impacts of nitrates from member farming operations.

⁹ If the discharger seeking compliance through this option is a third party submitting the NOI on behalf of the individual members of the third party, the third party will need to take reasonable efforts to categorize the various geographic areas as covered by the third party general order.

New dischargers that propose to discharge new or additional levels of nitrate¹⁰, or existing dischargers seeking a permit modification due to a material change to a facility that requires submittal of a Report of Waste Discharge and that includes an increase in nitrate discharges (either in volume or concentration), shall include the initial assessment information at the time of submittal of the Report of Waste Discharge. If a Management Zone exists for the area where the new or expanded discharge shall occur, the discharger shall indicate how the discharger intends to comply with the Nitrate Control Program, i.e., Path A or Path B. If a Management Zone does not exist at the time of application, the Regional Water Board may use its discretion to issue a time schedule to the discharger for complying with the Nitrate Control Program through a later formed Management Zone.

D. Option In lieu of Individual Initial Assessment/Notice of Intent

In lieu of conducting an initial assessment and submitting a Notice of Intent, existing permitted dischargers may work collaboratively and cooperatively to prepare a Preliminary Management Zone Proposal that meets the requirements of section VI(b)(2).

(2) Preliminary Management Zone Proposal (Path B)

Existing permitted dischargers may work cooperatively to prepare a single Preliminary Management Zone Proposal for an identified geographic area. A Preliminary Management Zone Proposal must include all of the following:

- (i.) Proposed preliminary boundaries of the Management Zone area;
- (ii.) Identification of Initial Participants/Dischargers;
- (iii.) Identification of other dischargers and stakeholders in the management zone area that the initiating group is in contact with regarding participation in the management zone;
- (iv.) Initial assessment of groundwater conditions based on readily available existing data and information.
 - May use default information in or referenced by, the Central Valley SNMP or provide supplemental information that includes water quality conditions in the upper zone;
- (v.) Identification/summary of current treatment and control efforts, or management practices;¹¹
- (vi.) Initial identification of public water supplies or domestic wells within the Management Zone area contaminated by nitrates;
- (vii.) An Early Action Plan to address drinking water needs for those that rely on public water supply or domestic wells that are contaminated by nitrates;
- (viii.) Documentation of process utilized to identify affected residents and the outreach utilized to insure that they are given the opportunity to participate in development of an EAP;

¹⁰ In cases where there is an ownership transfer of a facility and where the level of nitrate being discharged does not change, an initial assessment may not be necessary.

¹¹ If the discharger seeking compliance through this option is a third party submitting the NOI on behalf of the individual members of the third party, the third party will need to take reasonable efforts to summarize the management practices being used by its members with respect to protecting groundwater quality from the impacts of nitrates from member farming operations.

- (ix.) Identification of areas within or adjacent to the management zone that overlap with other management areas/activities;
- (x.) Any constituents of concern that the individual discharger/group of dischargers intend to address besides nitrate (not required but is an option available);
- (xi.) Proposed timeline for:
 - Identifying additional participants;
 - Further defining boundary areas;
 - Developing proposed governance and funding structure for administration of the Management Zone;
 - Additional evaluation of groundwater conditions across the management zone boundary area, if necessary; and,
 - Preparing and submitting a Final Management Zone Proposal and a Management Zone Implementation Plan.

Preliminary Management Zone Proposals must be submitted to the Regional Water Board according to the due dates identified in Table X-5.

Dischargers that are identified as an Initial Participant in a Management Zone shall be presumed to be electing Path B for complying with the Nitrate Control Program, unless they otherwise notify the Regional Water Board of their intent to withdrawal from Path B. If a permitted discharger withdraws from Path B, the discharger must submit an initial assessment and Notice of Intent within 30 days from withdrawing from Path B.

(3) Early Action Plan (Path A and Path B as applicable)

Early Action Plans are required if public water supply or domestic wells in the area of concern are contaminated by nitrate. Implementation of an Early Action Plan that is addressing nitrate contamination for public water supply and/or domestic wells by providing an alternative water supply does not create a presumption of liability for the cause of such contamination.

An Early Action Plan must include the following:

- (i.) A process to identify affected residents and the outreach utilized to ensure that impacted groundwater users are informed of and given the opportunity to participate in the development of proposed solutions;
- (ii.) A process for coordinating with others that are not dischargers to address drinking water issues, which must include consideration of coordinating with affected communities, domestic well users and their representatives, the State Water Board's Division of Drinking Water, Local Planning Departments, Local County Health Officials, Sustainable Groundwater Management Agencies and others as appropriate;
- (iii.) Specific actions and a schedule of implementation that is as short as practicable to address the immediate drinking water needs of those initially identified within the management zone, or area of concern for a Path A discharger, that are drinking

groundwater that exceeds nitrate standards and that do not otherwise have interim replacement water that meets drinking water standards; and

- (iv.) A funding mechanism for implementing the EAP, which may include seeking funding from Management Zone participants, and/or local, state and federal funds that are available for such purposes;

An Early Action Plan may qualify as all or part of an Alternative Compliance Project.

(4) Final Management Zone Proposal (Path B)

Management Zone participants must prepare and submit a Final Management Zone Proposal.

The Final Management Zone Proposal must include all information from the Preliminary Management Zone Proposal, updated as necessary, as well as the following:

- (i.) Timeline for development of the Management Zone Implementation Plan;
- (ii.) Updated list of participants;
- (iii.) Governance structure that, at a minimum, establishes the following: (a) roles and responsibilities of all participants; (b) identification of funding or cost-share agreements to implement short term nitrate management projects/activities, which may include local, state and federal funds that are available for such purposes; and (c) a mechanism to resolve disputes among participating dischargers;
- (iv.) Additional evaluation of groundwater conditions across management zone area, if necessary;
- (v.) Identification of proposed approach for regulatory compliance (i.e., use of assimilative capacity and/or seeking approval of an exception for meeting nitrate water quality objectives);
- (vi.) Explanation of how the management zone intends to interact and/or coordinate with other similar efforts such as those underway pursuant to the SGMA; and,
- (vii.) Documentation of actions taken to implement the Early Action Plan.

Final Management Zone Proposals shall be submitted to the Regional Water Board for review and comment according to the due dates identified in Table X-5.

(5) Management Zone Implementation Plan (Path B)

A Management Zone Implementation Plan is the equivalent of an Alternative Compliance Project. Management Zone Implementation Plans shall include, at a minimum, all of the following:

- (i.) Must identify how emergency, interim and permanent drinking water needs for those affected by nitrates in the Management Zone area (and area impacted by dischargers within the Management Zone) are being addressed, and must show that where groundwater is impaired by nitrate contamination that a drinking water supply that meets drinking water standards will be available to all drinking water users within the

- management zone boundary, and the timeline and milestones necessary for addressing such drinking water needs;
- (ii.) Must show how the Management Zone plans to achieve balanced nitrate loadings within the management zone (to the extent reasonable, feasible or practicable);
 - (iii.) Must have a plan for establishing a managed aquifer restoration program to restore nitrate levels to concentrations at or below the water quality objectives to the extent it is reasonable, feasible or practicable to do so;
 - (iv.) Any proposed short/long-term activities to provide safe drinking water must also document collaboration with the community and/or users benefitting from the proposal(s);
 - (v.) Funding or cost-share agreements, or a process for developing such funding or cost-share agreements, to implement intermediate and long-term nitrate management projects/activities, which may include identification of local, state and federal funds that are available for such purposes;
 - (vi.) Implementation of nitrate management activities within a management zone may be prioritized based on factors identified in the Central Valley SNMP and the results of the characterization of nitrate conditions. Prioritization provides the basis for allocating resources with resources directed to the highest water quality priorities first;
 - (vii.) Must include a water quality characterization and identification of nitrate management measures, including:
 - Characterization of nitrate conditions within the proposed management zone, which will be used as the basis for demonstrating how nitrate will be managed within the management zone over short and long-term periods to meet the management goals established in the Central Valley Region SNMP.
 - Short (≤ 20 years) and long-term (> 20 years) projects and/or planning activities that will be implemented within the management zone, and in particular within prioritized areas (if such areas are identified in the Implementation Plan) to make progress towards attaining each of the management goals identified by the Central Valley SNMP. Over time as water quality is managed in prioritized areas, updates to the plan may shift the priorities in the management zone.
 - Milestones related to achieving balanced nitrate loadings and managed aquifer restoration.
 - A short and long-term schedule for implementation of nitrate management activities with interim milestones.
 - Identification of triggers for the implementation of alternative procedures or measures to be implemented if the interim milestones are not met.
 - A water quality surveillance and monitoring program that is adequate to ensure that the plan when implemented is achieving the expected progress towards attainment of management goals. All or parts of the surveillance and monitoring program may be coordinated or be part of a valley-wide and/or regional groundwater monitoring, if appropriate.
 - Consideration of areas outside of the management zone that may be impacted by discharges that occur within the management zone boundary areas.
 - (viii.) Identify the responsibilities of each regulated discharger, or groups of regulated dischargers participating in the management zone, to manage nitrate within the Zone.

- (ix.) Must include information necessary for obtaining an Exception as set forth in the Exceptions Policy, or information necessary for the Central Valley Water Board to grant use of assimilative capacity for Management Zones.

(6) Request for Allocation of Assimilative Capacity

A request for allocation of assimilative capacity for a Management Zone may not be for an area larger than an identified basin or subbasin from Table X-2, and must include the following:

- (i.) A comprehensive antidegradation analysis, consistent with the State Antidegradation Policy, which includes an evaluation of impacts to down-gradient areas.¹²
- (ii.) Demonstration that there is sufficient assimilative capacity to ensure that discharges of nitrate from participants to the Management Zone, including discharges to recharge projects, will not cause the volume-weighted average water quality in the upper zone underlying the management zone to exceed the applicable Basin Plan objective(s);
- (iii.) Demonstration that the proposed discharges covered by the management zone will not unreasonably affect present and anticipated beneficial uses in or down-gradient to the Management Zone;
- (iv.) Demonstration that the allocation of assimilative capacity, and the resulting net effect on receiving water quality, is consistent with maximum benefit to the people of the State; and
- (v.) Demonstration that Best Practicable Treatment or Control will be implemented to ensure that pollution or nuisance will not occur and that any degradation authorized by the Regional Water Board will be consistent with the maximum benefit to the people of the state.
- (vi.) Demonstration that allocation of assimilative capacity to dischargers participating in the Management Zone will not result in groundwater, as a volume-weighted average in the upper zone, to exceed a trigger level of 75% of the nitrate water quality objective over a 20-year timeframe. The Regional Water Board retains the discretion to allocate assimilative capacity above this trigger level as long as the Regional Water Board can find that use of assimilative capacity above the trigger level will not result in pollution or nuisance over the longer term.

A Management Zone Implementation Plan shall be reviewed periodically, and may be modified periodically to incorporate changes based on new data or information. Any such modifications should generally be changes that will benefit water quality in the management zone. Any modifications to the Management Zone Implementation Plan that impact or change timelines, milestones or deliverables identified in the Implementation Plan must be approved by the Regional Water Board.

VII. Regional Water Board Actions

(a) *Individual Permitting Approach – Path A*

The Regional Water Board will use the information contained in a submitted Notice of Intent or Report of Waste Discharge to determine if the discharge in question complies with the Nitrate Control Program. If the Regional Water Board finds that that the discharge as currently permitted is in compliance with the Nitrate Control Program, then revisions to existing waste discharge requirements or conditional waivers may not be necessary.

If the discharge as permitted, or proposed to be discharged, does not comply with the Nitrate Control Program, or if the Regional Water Board needs additional information to make such a determination, the Regional Water Board may request additional information using its existing authorities.

Upon receipt of a completed Notice of Intent or Report of Waste Discharge, the Regional Water Board shall take all reasonable efforts to revise applicable waste discharge requirements or conditional waivers within one year, as resources allow.

Implementation of an Early Action Plan shall begin as soon as is reasonably feasible, but no later than 60 days after submittal, unless the Regional Water Board deems the Early Action Plan to be incomplete.

(b) *Management Zone Permitting Approach – Path B*

(1) Preliminary Management Zone Proposal

Upon receipt of a Preliminary Management Zone Proposal, the Regional Water Board shall prominently post the proposal on its website, circulate the Proposal publically through its Lyris list-serve and provide individual post card notices (as resources allow) of the Proposal's availability to dischargers within the Management Zone boundary area that are not already identified as Initial Participants. The Regional Water Board will work with the group of initiating dischargers to help communicate the availability of the Proposal to other dischargers and stakeholders within the Management Zone area. The Preliminary Management Zone Proposal shall be available for public comment for at least 30 days after being posted by the Regional Water Board.

(2) Early Action Plan

Implementation of the Early Action Plan shall begin as soon as is reasonably feasible, but no later than 60 days after submittal, unless the Regional Water Board deems the Early Action Plan to be incomplete.

(3) Final Management Zone Proposal

Upon receipt of a Final Management Zone Proposal, the Regional Water Board shall prominently post the proposal on its website, circulate the Final Proposal publically through its Lyris list-serve, and make the Final Proposal available for public review and comment for at least 30 days. The Executive Officer of the Regional Water Board shall determine if the Final Management Zone Proposal meets the minimum requirements set forth in section 4.5.7.6.4, and must determine if the Final Management Zone Proposal is deemed complete. A complete Final Management Zone Proposal functions as an equivalent to a Report of Waste Discharge for all existing permitted dischargers that are participating in the Management Zone.

(4) Management Zone Implementation Plan

Within a reasonable time period after finding the proposed Management Zone Implementation Plan (or requests for modifications to an approved Management Zone Implementation Plan that would alter timelines, milestones or deliverables) is complete, the Regional Water Board shall provide public notice, request comment and schedule and hold a public hearing on the Management Zone Implementation Plan and the request for Alternative Compliance (i.e., volume weighted assimilative capacity or exception) embedded within the plan.

When the Regional Water Board finds it necessary to revise existing waste discharge requirements or conditional waivers, or issue new waste discharge requirements or conditional waivers, to implement the Management Zone Implementation Plan, the notice, request for comment and public hearing requirement may be conducted in conjunction with the Regional Water Board's process for revising or adopting waste discharge requirements or conditional waivers.

The Regional Water Board may approve all or part of a request for use of assimilative capacity to a Management Zone using a volume-weighted average in the upper zone, if the Regional Water Board finds all of the following:

- (i.) The request is consistent with the State Antidegradation Policy;
- (ii.) The request is supported with a comprehensive antidegradation analysis;
- (iii.) The request includes a Management Zone Implementation Plan that meets the requirements of section 4.5.7.6.5.;
- (iv.) Allocation of assimilative capacity to dischargers participating in the Management Zone will not adversely impact available assimilative capacity in areas outside of the Management Zone; and,
- (v.) Allocation of assimilative capacity to dischargers participating in the Management Zone will not result in groundwater, as a volume-weighted average in the upper zone, to exceed a trigger level of 75% of the nitrate water quality objective for MUN over a 20-year timeframe. The Central Valley Water Board retains the discretion to allocate assimilative capacity above this trigger level as long as the Central Valley Water Board can find that use of assimilative capacity above the trigger level will not result in pollution or nuisance over the longer term.

The Regional Water Board may grant an exception to meeting nitrate water quality objectives to existing permitted dischargers participating in the Management Zone, and such granting of an exception may be to the Management Zone as a whole.

If a Management Zone Implementation Plan is found to not be complete, and if a Management Zone does not revise the Management Zone Implementation Plan in a timely manner that makes it complete for consideration by the Regional Water Board, then dischargers within that Management Zone must comply with the Nitrate Control Program via Path A as directed by the Regional Water Board's Executive Officer.

VIII. Requirements for Alternative Compliance Projects

The Regional Water Board will require a discharger(s) to develop and implement an Alternative Compliance Project to support an allocation of assimilative capacity on a volume-weighted basis, above a trigger level, or to authorize an exception.

- For dischargers electing to comply under Path A, the Alternative Compliance Project must be submitted with the Notice of Intent.
- For dischargers electing to comply under Path B, the Alternative Compliance Project is the Management Zone Implementation Plan.

At a minimum, an Alternative Compliance Project must include the following:

- (1) identification of public water supply and domestic wells that are contaminated by nitrates and that are within the discharge areas zone of concern;
- (2) a schedule, with identified milestones, for addressing those nitrate-related drinking water issues; and,
- (3) identification of steps to be taken to meet the management goals of the Salt and Nitrate Management Program, which may be phased in over time.¹³

The Regional Water Board has developed *Guidelines for Developing Alternative Compliance Projects*, which dischargers may consider in development of an Alternative Compliance Project.

¹³ The Regional Water Board recognizes that full compliance with management goals 2 and 3 (i.e., reaching balance and managed restoration) may not be reasonable, feasible or practicable in all circumstances. In such cases, the discharger is responsible for providing the Regional Water Board with all necessary information to show why full compliance with management goals 2 and 3 are not reasonable, feasible or practicable. Dischargers shall still implement actions towards meeting the management goals that are reasonable, feasible and practicable.

Guidelines for Proposing an Acceptable Alternative Compliance Project

When an individual or group of dischargers is unable to demonstrate that their discharge is not causing or contributing to nitrate degradation above the triggers identified in the Nitrate Control Program, they have an opportunity to request either allocation of available assimilative capacity on a volume-weighted basis, above trigger levels, or request an exception. The request for the granting of assimilative capacity or an exception in these circumstances is considered to be Alternative Compliance, and must be accompanied by sufficient documentation to verify that the proposed approach is reasonable, feasible, and practicable and meets the goals of the Central Valley SNMP. To authorize Alternative Compliance, the Regional Water Board looks to see if the request is supported with an Alternative Compliance Project (ACP). An ACP may be proposed by an individual discharger (which includes a third party group subject to a general order) or dischargers working collaboratively as part of a management zone. Under Path B of the Nitrate Control Program, the preparation of a Management Zone Implementation Plan is considered the equivalent of an ACP. While the Regional Water Board has the discretion to deny such a request, any proposed Alternative Compliance Project(s) must contain the following components in order to be considered.

(a) *As needed: updates to Initial Assessments and Preliminary Management Zone Proposals that include:*

- Anticipated zone of contribution of the individual discharger (or third party group subject to a general order), or group of dischargers under a management zone, over a 20-year planning horizon;
- Stakeholders that may be affected within the zone of contribution over a 20-year planning horizon;
- Identification of stakeholders within the zone of contribution who are not included within the ACP boundaries and why;
- Identification of areas within the zone of influence that overlap with other management areas/activities and the process to ensure coordination;
- Identifications of geologic and hydrologic features that limit or promote groundwater movement.
- Further assessment of water quality conditions based on additional data and information.
- Process to identify affected residents and the outreach utilized to ensure that stakeholders are informed of and given the opportunity to participate in the development of any ACP proposal;
- Any constituents of concern the individual discharger/group of dischargers intends to address besides nitrate (not required but is an optional available); and

- Identification of current best efforts/Best Practicable Treatment and Control (BPTC) and need for assimilative capacity or an approved exception from meeting the nitrate water quality standard.

(b) *Components of a Proposed Alternative Compliance Project(s)*

- Be consistent with the management goals of the Central Valley SNMP, including addressing short- term and long-term drinking water needs affected by nitrates (Management Goal 1), plan for achieving balanced nitrate loadings within the proposed boundaries of the project, where reasonable and feasible (Management Goal 2), and a plan for establishing a managed aquifer restoration program to restore nitrate levels to concentrations at or below the water quality objectives to the extent reasonable, practicable and feasible (Management Goal 3).
- Include a process to ensure that drinking water that meets drinking water standards is available to all drinking water users utilizing groundwater within the zone of contribution. This component may be met through the development and implementation of an Early Action Plan, as may be required by the SNMP Nitrate Permitting Strategy, payment into a mitigation fund, and/or other mechanisms geared toward providing emergency, interim and permanent solutions.
- Describe the outreach that has occurred and that will continue to occur to ensure that stakeholders or affected communities within the zone of influence are informed of, and given opportunity to participate in, the development of any ACP proposal as well as ongoing activities designed to resolve their drinking water concerns.
- For a management zone, contain a governance framework that, at a minimum, establishes the following: (a) roles and responsibilities of all participants; (b) involvement of an entity with authority to manage water use within the zone of influence including any identified SGMA¹⁴ management agency, if applicable or as necessary; (c) involvement of representative(s) of stakeholders and/or communities within the zone of influence that utilize the groundwater as a drinking water supply; (d) funding or cost-share agreements to implement the ACP, and short and long-term nitrate management projects/activities; and (e) a mechanism to resolve disputes among participating dischargers.
- Identify how nitrate conditions will be characterized for use as the basis for demonstrating how nitrate will be managed over short and long-term periods to meet the nitrate management goals established in the Central Valley Region SNMP.
- Identify short (≤ 20 years) and long-term (> 20 years) projects and/or planning activities that will be implemented as part of the ACP to make progress towards attaining each of the water quality- related management goals established by the

¹⁴ Need appropriate SGMA reference

Central Valley SNMP within the zone of influence. Projects/planning activities must first prioritize provision of safe drinking water but individual activities may be further prioritized to better allocate resources. Over time, as water quality improves in prioritized areas, updates to the ACP may shift the priorities.

- Identify mechanism(s) to support achievement of the overall Central Valley SNMP's long-term strategy to achieve balanced nitrate loadings and managed aquifer restoration, where reasonable and feasible. Mechanisms may include, but not be limited to:
 - Implementation of management practices that will reduce current nitrate loading to groundwater;
 - Use of offsets to help mitigate potential localized impacts, while improving overall basin or subbasin-wide water quality (see SNMP Offsets Policy, Attachment A-7);
 - Managed groundwater recharge;
 - Pump and utilize and/or treat and distribute; and
 - Payment into a mitigation fund established to meet development and implementation of long term drinking water solutions, balance and restoration.
- Include a short and long-term schedule for implementation of nitrate management activities with interim milestones and performance measures to assess progress every 5 years during the first 20 year planning horizon and every 10 years thereafter.
- Identification of alternative procedures or measures to be implemented if the interim milestones or performance measures are not met.
- A water quality surveillance and monitoring program that is adequate to ensure that the ACP when implemented is achieving the expected progress towards attainment of water quality- related management goals (coordination with the SNMP's surveillance and monitoring program may be considered as part of efforts to comply with this element).
- The ACP may be modified periodically to incorporate changes that will benefit water quality. Any modifications to an ACP that impact or change timelines, milestones or deliverables identified must be approved by the Central Valley Water Board through a public process.
- The ACP shall identify the responsibilities of each regulated discharger, or groups of regulated dischargers if participating in a management zone, to manage nitrate within the zone. The Central Valley Water Board shall incorporate the responsibilities of each discharger, or groups of dischargers if within a management zone, into their respective Individual or General WDRs.

- Before the Central Valley Water Board may modify any WDRs to incorporate the use of assimilative capacity on a management zone basis or to adopt an exception to meeting a water quality standard in a WDR for a discharger participating in the management zone, the Central Valley Water Board's Executive Officer must approve the establishment of the management zone and its ACP after providing public notice and opportunity to comment. Should a stakeholder that is in the zone of influence of the proposed management zone contest the proposed ACP, the ACP must be approved by the Central Valley Water Board after public notice and hearing. Executive Officer approval of the management zone in no way changes the requirement that any modifications to WDRs must be approved by the Central Valley Water Board after public notice and hearing.
- The triggers for determining the need for an ACP are identified in the Nitrate Permitting Strategy and based in part on the nitrate concentration in the effluent, the concentration in the receiving water, and the rate of degradation.
- Progress on the milestones and performance measures of the ACP must be provided to the Central Valley Water Board at a minimum of every five years during the first 20-year planning horizon and every 10-years thereafter. The progress reports must also include:

Notes:

- (a) In determining available assimilative capacity, the Regional Water Board shall consider the quality of the discharge as it enters the receiving water, accounting for reductions in nitrate mass or concentration as the discharge percolates to groundwater through the soil. To make this determination, the Regional Water Board may consider information provided by the discharger that demonstrates that the level of nitrate entering shallow groundwater is different than the level of nitrate in the discharge due to naturally occurring groundwater recharge, nitrogen transformation and losses, and nitrogen uptake by plants.
- (b) In determining if the discharge will cause an exceedance of the nitrate water quality objective or the trigger levels, the Regional Water Board shall consider the impact over a 20-year planning horizon.

Appendix X Nitrate Control Program Non-Prioritized Basins

The following table is proposed for addition to an appendix of the Sacramento River and San Joaquin River and Tulare Lake Basin Plans.

Appendix X

Non-Prioritized Basins		
Basin/Sub-basin Number (DWR Bulletin 118)	Name	Notes
2-4	Pittsburgh Plain	Listed as Non-Prioritized in Table D4-2 of SNMP
5.21.66	Solano	Listed as Non-Prioritized in Table D4-2 of SNMP
5.22.15	Tracy	Listed as Non-Prioritized in Table D4-2 of SNMP
2-3	Suisun-Fairfield Valley	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.52	Solusa	Listed as Non-Prioritized in Table D4-2 of SNMP
5-22.14	Kern County (Southeastern)	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.61	South Yuba	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.64	North American	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.57	Vina	Listed as Non-Prioritized in Table D4-2 of SNMP
5-22.16	Cosumnes	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.58	West Butte	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.68	Capay Valley	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.62	Sutter	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.56	Los Molinos	Listed as Non-Prioritized in Table D4-2 of SNMP
5-22.10	Pleasant Valley	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.60	North Yuba	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.65	South American	Listed as Non-Prioritized in Table D4-2 of SNMP

Non-Prioritized Basins		
Basin/Sub-basin Number (DWR Bulletin 118)	Name	Notes
5-21.54	Antelope	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.59	East Butte	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.51	Corning	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.50	Red Bluff	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.55	Dye Creek	Listed as Non-Prioritized in Table D4-2 of SNMP
5-22.09	Westside	Listed as Non-Prioritized in Table D4-2 of SNMP
5-21.53	Bend	Listed as Non-Prioritized in Table D4-2 of SNMP
5-6.04	Enterprise	Listed as Non-Prioritized in Table D4-2 of SNMP
5-6.03	Anderson	Listed as Non-Prioritized in Table D4-2 of SNMP
5-6.01	Bowman	Listed as Non-Prioritized in Table D4-2 of SNMP
5-6.06	South Battle Creek	Listed as Non-Prioritized in Table D4-2 of SNMP
5-6.05	Millville	Listed as Non-Prioritized in Table D4-2 of SNMP
5-6.02	Rosewood	Listed as Non-Prioritized in Table D4-2 of SNMP
5-1.01	Lower Goose Lake Valley	Outside of Valley Floor
5-1.02	Fandango Valley	Outside of Valley Floor
5-3	Jess Valley	Outside of Valley Floor
5-8	Mountain Meadows Valley	Outside of Valley Floor
5-20	Berryessa Valley	Outside of Valley Floor
5-23	Panoche Valley	Outside of Valley Floor
5-26	Walker Basin Creek Valley	Outside of Valley Floor
5-31	Long Valley	Outside of Valley Floor
5-35	McCloud Area	Outside of Valley Floor
5-36	Round Valley	Outside of Valley Floor
5-37	Toad Well Area	Outside of Valley Floor
5-38	Pondosa Town Area	Outside of Valley Floor
5-40	Hot Springs Valley	Outside of Valley Floor
5-41	Egg Lake Valley	Outside of Valley Floor
5-43	Rock Prairie Valley	Outside of Valley Floor
5-44	Long Valley	Outside of Valley Floor

Non-Prioritized Basins		
Basin/Sub-basin Number (DWR Bulletin 118)	Name	Notes
5-45	Cayton Valley	Outside of Valley Floor
5-46	Lake Britton Area	Outside of Valley Floor
5-47	Goose Valley	Outside of Valley Floor
5-48	Burney Creek Valley	Outside of Valley Floor
5-49	Dry Burney Creek Valley	Outside of Valley Floor
5-50	North Fork Battle Creek	Outside of Valley Floor
5-51	Butte Creek Valley	Outside of Valley Floor
5-52	Grays Valley	Outside of Valley Floor
5-53	Dixie Valley	Outside of Valley Floor
5-54	Ash Valley	Outside of Valley Floor
5-56	Yellow Creek Valley	Outside of Valley Floor
5-57	Last Chance Creek Valley	Outside of Valley Floor
5-58	Clover Valley	Outside of Valley Floor
5-59	Grizzly Valley	Outside of Valley Floor
5-60	Humbug Valley	Outside of Valley Floor
5-61	Chrome Town Area	Outside of Valley Floor
5-62	Elk Creek Area	Outside of Valley Floor
5-63	Stonyford Town Area	Outside of Valley Floor
5-64	Bear Valley	Outside of Valley Floor
5-65	Little Indian Valley	Outside of Valley Floor
5-66	Clear Lake Cache Formation	Outside of Valley Floor
5-68	Joseph Creek	Outside of Valley Floor
5-69	Squaw Flat	Outside of Valley Floor
5-70	Los Banos Creek Valley	Outside of Valley Floor
5-71	Vallecitos Creek Valley	Outside of Valley Floor
5-80	Brite Valley	Outside of Valley Floor
5-82	Cuddy Canyon Valley	Outside of Valley Floor
5-83	Cuddy Ranch Area	Outside of Valley Floor
5-84	Cuddy Valley	Outside of Valley Floor
5-85	Mil Potrero Area	Outside of Valley Floor
5-86	Joseph Creek	Outside of Valley Floor
5-87	Middle Fork Feather River	Outside of Valley Floor
5-88	Stony Gorge Reservoir	Outside of Valley Floor
5-89	Squaw Flat	Outside of Valley Floor
5-90	Funks Creek	Outside of Valley Floor
5-91	Antelope Creek	Outside of Valley Floor
5-92	Blanchard Valley	Outside of Valley Floor
5-93	North Fork Cache Creek	Outside of Valley Floor
5-94	Middle Creek	Outside of Valley Floor
5-95	Meadow Valley	Outside of Valley Floor
5-4	Big Valley	Outside of Valley Floor
5-5	Fall River Valley	Outside of Valley Floor

Non-Prioritized Basins		
Basin/Sub-basin Number (DWR Bulletin 118)	Name	Notes
5-7	Lake Almanor Valley	Outside of Valley Floor
5-9	Indian Valley	Outside of Valley Floor
5-10	American Valley	Outside of Valley Floor
5-11	Mohawk Valley	Outside of Valley Floor
5-13	Upper Lake Valley	Outside of Valley Floor
5-14	Scotts Valley	Outside of Valley Floor
5-15	Big Valley	Outside of Valley Floor
5-16	High Valley	Outside of Valley Floor
5-17	Burns Valley	Outside of Valley Floor
5-18	Coyote Valley	Outside of Valley Floor
5-19	Collayomi Valley	Outside of Valley Floor
5-25	Kern River Valley	Outside of Valley Floor
5-27	Cummings Valley	Outside of Valley Floor
5-28	Tehachapi Valley Area	Outside of Valley Floor
5-29	Castac Lake Valley	Outside of Valley Floor
5-30	Lower Lake Valley	Outside of Valley Floor
5-12.01	Sierra Valley	Outside of Valley Floor
5-12.02	Chilcoot	Outside of Valley Floor
5-2.01	South Fork Pitt River	Outside of Valley Floor
5-2.02	Warm Springs Valley	Outside of Valley Floor