

APPENDIX J

Implementation of the Recommended Alternative for the Nitrate Control Program

The Recommended Alternative for the Nitrate Control Program (Recommended Nitrate Control Program) establishes a comprehensive, long-term management strategy for addressing nitrate in Central Valley groundwater basins/sub-basins and in areas within the Central Valley Water Board's jurisdictional boundaries that are not in a designated groundwater basin/sub-basin. To implement this long-term strategy, the Central Valley Water Board needs additional flexibility in how it permits persons¹ that discharge nitrate to groundwater. Under the Recommended Nitrate Control Program, the Central Valley Water Board may utilize alternative permitting approaches as long as certain requirements are met. These requirements include the need to make sure that those relying on groundwater as a source of drinking water have access to safe drinking water. In other words, where there are public or domestic drinking water wells with water that exceeds the nitrate drinking water standard of 10 milligrams/liter (mg/l), they must have access to drinking water that complies with the nitrate drinking water standard.

The purpose of this appendix is to further explain implementation of the Recommended Nitrate Control Program, including the alternative permitting approaches, as it applies to permitted discharges of nitrate to groundwater that are subject to the Central Valley Water Board's authorities under the Porter-Cologne Water Quality Control Act (Porter-Cologne).

Timing for Implementation

Timing for implementation of the Recommended Nitrate Control Program will vary across the Central Valley based on concerns related to nitrate in groundwater. Specifically, the Recommended Nitrate Control Program includes identification of priority areas that are considered to be of the highest priorities based on existing, ambient water quality conditions. Application of the Recommended Nitrate Control Program to permittees would occur once a permittee is notified by the Central Valley Water Board of their need to comply with the Recommended Nitrate Control Program based on the established priority order. This notification is referred to as a "Notice to Comply."

Existing Dischargers

Once a permittee receives a Notice to Comply, the permittee has a certain amount of time to notify the Central Valley Water Board of their intent to either comply with the Nitrate Control Program as an individual discharger/third party (hereafter referred to as "Individual Permittee"), or as part of a groundwater management zone (hereafter referred to as "Management Zone Participant").² For Priority 1 areas, the time allowed for notification back to

¹ "Person" includes any city, county, district, the state and the United States, to the extent authorized by federal law." (California Water Code, Section 13050(c).)

² For purposes of this notification, individual dischargers that are subject to General Orders that cover a specified geographic area or are commodity based, and that are administered by a Third Party (e.g., Third Party Orders for Irrigated Agriculture), the Third Party may provide notice as required in this step on behalf of its members. For individual dischargers that are subject to a General Order that is not administered by a Third Party (e.g., Dairy General Order), the individual must provide the necessary notice as indicated in this step.

the Central Valley Water Board is 330 days from receiving the Notice to Comply, and for all others it is 425 days after receiving the Notice to Comply. Additional details regarding notification to the Central Valley Water Board are provided below.

New or Expanding Dischargers

For new or expanding permittees located in a groundwater basin/subbasin (regardless of priority), or those with a material change to their operation that increases the level of nitrate discharged to groundwater, the Central Valley Water Board will require compliance with the Nitrate Control Program at the time of permit issuance, or at the time of permit modification. This provision does not apply to new or expanding permittees in areas that are not part of a designated basin/sub-basin unless the Executive Officer of the Central Valley Water Board determines that based on the specific facts of the discharge that such compliance is required and notifies the discharger accordingly.

Permitting Options

The Recommended Nitrate Control Program includes two separate approaches for permitting nitrate discharges to groundwater:

- 1) *Individual Approach (Path A)* is the standard permitting approach 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 components of the Nitrate Control Program as an Individual Permittee, or in circumstances when a management zone is not an option; and,
- 2) *Management Zone Approach (Path B)* is an alternative permitting approach when multiple dischargers/permittees elect to participate in a management zone to comply with the Recommended Nitrate Control Program.

Process for Notification to the Central Valley Water Board

With two permitting options being available, it is necessary for permittees to notify the Central Valley Water Board of their selected pathway (Path A or Path B). Prior to notifying the Central Valley Water Board of their selected permitting pathway, permittees must:

- 1) Conduct an initial assessment of their discharge(s) and groundwater conditions in the vicinity of the discharge(s); *or*,
- 2) Participate in development of a Preliminary Management Zone Proposal with other permittees.

By conducting an initial assessment, permittees will be better informed to determine if they prefer to comply with the Recommended Nitrate Control Program pursuant to Path A or Path B. Or, in the alternative, some permittees may know early on based on their circumstances that development and participation in a Management Zone (i.e., Path B) is their preferred option. In such cases, permittees may decide that is more efficient and advantageous to work with other permittees to develop a Preliminary Management Zone Proposal rather than spending time and resources on an initial assessment.

Under the Recommended Nitrate Control Program, it is anticipated that key permittees in high priority areas will take the lead in developing Preliminary Management Zone Proposals, which will then be made available to others for 60-days for review and consideration. For those permittees that are not actively participating in the development of a Preliminary Management Zone Proposal, they will have the opportunity to join an available management zone. Notice

and information regarding available Preliminary Management Zone Proposals will be posted on the Central Valley Water Board's website, and all reasonable efforts will be made to notify permittees of the availability of such proposals.

For Priority I areas, Preliminary Management Zone Proposals need to be submitted to the Central Valley Water Board within 270 days of receiving a Notice to Comply, and for all other areas they need to be submitted within 1 year of receiving a Notice to Comply. Permittee notification to the Central Valley Water Board regarding which permitting path a permittee intends to elect must then occur 60 days afterwards, or 330 and 425 days respectively, after receiving a Notice to Comply.

Path A Notification

For permittees electing Path A, their notification to the Central Valley Water Board must include the initial assessment as outlined in section x of the Recommended Nitrate Control Program (which is explained below), and a Notice of Intent. The Notice of Intent needs to convey to the Central Valley Water Board the permittees election for Path A compliance.

Path B Notification

For permittees electing Path B, their notification to the Central Valley Water Board needs to consist of a Notice of Intent to comply via Path B, and identification of the Management Zone in which they intend to join. As indicated previously, for those permittees actively participating in development of the Preliminary Management Zone Proposal, submittal of the Preliminary Management Zone Proposal with their names identified constitutes submittal of a Notice of Intent.

For new permittees, or those seeking an expansion related to the discharge of nitrate, they must provide the Central Valley Water Board with the same data and information that is otherwise required by existing permitted dischargers as part of an initial assessment at the time that they submit their discharge application (i.e., Report of Waste Discharge) to the Central Valley Water Board. Such permittees may have the option to join a Management Zone if one is in existence for their area.

Path A Permittees - Initial Assessment and Categorization of the Discharge

A key step in implementation of the Recommended Nitrate Control Program is preparation of an initial assessment by all permittees, except those that actively participate in development of a Preliminary Management Zone Proposal (See Path B). The initial assessment serves several purposes. First, it assists the permittee in evaluating the impact of their discharge of nitrate to groundwater to better determine which permitting pathway works best for their discharge scenario. Second, for those permittees that then elect Path A, it provides the Central Valley Water Board with critical information to categorize the impact of nitrate being discharged to groundwater, and to determine nitrate permitting conditions for the discharge in question. Notably, unless a permittee is actively participating in development of a Preliminary Management Zone Proposal, the permittee needs to conduct an initial assessment. However, only those permittees selecting Path A are obligated to submit the initial assessment to the Central Valley Water Board with their Notice of Intent.

Initial Assessment

In general, the initial assessment is designed to have permittees assess their nitrate discharge impacts to groundwater in the Shallow Zone underlying the area of the discharge. The essential components of an initial assessment are explained here.

Part 1 – Assess Water Quality Conditions in the Shallow Zone

First, all permittees (unless actively participating in development of a Preliminary Management Zone Proposal) need to estimate the impact of nitrate in their discharge on groundwater in the Shallow Zone over a 20-year planning horizon. The Recommended Nitrate Control Program includes options for defining the Shallow Zone as applicable to the discharge (or discharges). In general, however, the Shallow Zone is the portion of the aquifer whose areal extent is defined by the boundaries of the discharge area and whose vertical extent is defined by the depth of the shallowest 10% of the domestic water supply wells near the discharge. Or, alternatively, a permittee may propose an equivalent alternative for approval by the Central Valley Water Board's Executive Officer.

Further, when evaluating such impacts, permittees should be looking to determine the impact of their nitrate discharges on average nitrate concentrations in the Shallow Zone. In its simplest form, permittees may conduct such assessments by using simple mass balance calculations that assume 20 years of nitrate loading as it reaches the water table, and by using readily available data and information. Or, in the alternative, permittees may collect data and information, to model their nitrate discharge impacts on groundwater in the applicable Shallow Zone.

The Recommended Nitrate Control Program does not require permittees to develop expensive, high resolution models. However, a permittee maintains the option to conduct a more sophisticated analysis should they so desire. Further, permittees are encouraged to use existing assessments that may already exist. For example, irrigated lands coalitions in the Central Valley prepared extensive Groundwater Assessment Reports as part of Waste Discharge Requirements issued in 2012 and 2013. Such assessments may already contain the information identified for an initial assessment. Or, in another example, a permittee may have prepared an antidegradation analysis to support issuance of a permit or permit amendment. This antidegradation analysis may satisfy all or part of the initial assessment requirements in the Recommended Nitrate Control Program.

Part 2 – Determine if Discharge of Nitrate is Causing Any Public Water Supply Well or Domestic Well to Exceed the Nitrate Drinking Water Standard

Permittees must conduct a survey of the area where the discharge (or discharges) occurs to identify if there are public water supply or domestic wells that have nitrate levels in exceedance of the drinking water standard, and determine if their discharge (or discharges) are the cause of the nitrate exceedance in the drinking water well in question. To identify drinking water wells that may exceed the nitrate drinking water standard, permittees may use google earth to identify location of domestic wells, the State Water Board's GeoTracker database, State Water Board Division of Drinking Water information, local County Public Health Department information, and other data sources.

Part 3 – Develop Early Action Plan (based on conclusions in Part 2)

If a permittee has determined that it has caused a public water supply well or domestic well to exceed the nitrate drinking water standard, then the permittee must prepare and submit an Early Action Plan with its initial assessment and Notice of Intent to the Central Valley Water Board. The Early Action Plan must include specific actions and a schedule of implementation to address immediate needs of those drinking groundwater that exceeds the drinking water standard for nitrate that is caused by the permittee. The permittee is required to implement the Early Action Plan as soon as reasonably feasible, but no later than 60 days after submittal.

Part 4 - Categorize the Discharge

To assist the Central Valley Water Board in determining appropriate permit requirements and conditions for discharges of nitrate, the Recommended Nitrate Control Program requires the permittee to categorize its impact for nitrate in the Shallow Zone. The Recommended Nitrate Control Program identifies five (5) categories. Categories one (1) through three (3) represent permitted discharges of nitrate that generally will have minimal or limited impacts to nitrate levels in the Shallow Zone. Discharges that fall within categories four (4) and five (5), likely impact nitrate levels in the Shallow Zone more significantly.

Typically, discharges that have more significant impacts on groundwater are subject to more restrictive permit requirements that are costly, and in some cases, unreasonable, infeasible and/or impractical to implement. However, rather than forcing permittees to meet a conservative discharge limit or prohibiting the discharge of nitrate, the Recommended Nitrate Control Program provides the Central Valley Water Board with the authority to adopt (on a permit-by-permit basis under Path A) an alternative permitting approach that would allow the nitrate discharge to continue, as long as certain requirements are met. In short, these requirements include the need to make sure that those that rely on groundwater have access to safe drinking water that complies with the nitrate drinking water standard, and that there are long-term plans for restoring impacted groundwater in the Shallow Zone in question through various management actions.

When the Central Valley Water Board implements an alternative permitting approach, or otherwise permits a nitrate discharge that under typical circumstances would not be permitted, the Central Valley Water Board will require the permittee to implement an Alternative Compliance Project as part of exercising an alternative permitting approach. This use/applicability of this authority is explained below with respect to each category of discharge, as well as in the Examples provided at the end of this Appendix.

An explanation of each category is provided here:

- Category 1 – Under category 1, the nitrate discharge as it reaches the Shallow Zone must be better than the applicable nitrate water quality objective (e.g., <10 mg/L-N), and be better than the average nitrate concentration in the Shallow Zone. Notably, under this scenario, the average nitrate concentration in the Shallow Zone may be less than, equal to, or greater than the applicable water quality standard. However, since the discharge itself is less than the objective, and less than the average concentration in the Shallow Zone, it will improve water quality conditions. Ultimately, this category is titled the “No Degradation” category because the discharge does not cause degradation to nitrate ambient water quality conditions in the Shallow Zone. As such, nitrate discharges in this category are considered to not impact nitrate levels in groundwater, and such discharges comply with the Recommended Nitrate Control Program with no further actions. Under this

scenario, the Central Valley Water Board does not need to rely on alternative permitting authorities. Thus, an Alternative Compliance Project is not necessary.

- Category 2 – Discharges of nitrate that fall under category 2 are those that are considered *de minimis*. Meaning that such discharges in combination with other nitrate discharges to the same Shallow Zone will not cause the average concentration of nitrate in the Shallow Zone to exceed a nitrate trigger of 75% of the applicable water quality objective. Under this scenario, the nitrate discharge itself may be above the applicable water quality objective (e.g., >10 mg/L-N) but the discharge will use less than 10% of available assimilative capacity, *and*, the discharge along with other discharges of nitrate to the Shallow Zone (over a 20-year planning horizon) will not cause the Shallow Zone to exceed 75% of the applicable water quality objective.

When a permittee seeks to use assimilative capacity, even if the amount is *de minimis*, it must be supported with an antidegradation analysis. Such analysis needs to be part of the initial assessment, unless the Central Valley Water Board previously granted the use and if the previously granted use of assimilative capacity was supported with an antidegradation analysis.

In general, the purpose of Category 2 is to recognize that there are some nitrate discharges that are truly *de minimis*, and have little impact on groundwater quality in the Shallow Zone. In such instances, the Central Valley Water Board will likely find that the discharge or discharges in question comply with the Recommended Nitrate Control Program with no further actions necessary. In other words, an Alternative Compliance Project will not be necessary. However, some form of groundwater monitoring may be required to continue to monitor nitrate impacts on the Shallow Zone. In most cases, existing monitoring requirements are probably sufficient for this purpose.

- Category 3 – Category 3 applies to discharges that may be greater than the applicable water quality objective (>10 mg/L-N), and when the impact of these discharges of nitrate are more than *de minimis* (i.e., use more than 10% of available assimilative capacity). Further, to fall within Category 3, the discharge or discharges in question cannot cause the average nitrate concentration in the Shallow Zone to exceed 75% of the applicable water quality objective over a 20-year planning horizon.

As with Category 2 discharges, use of assimilative capacity must be supported with an antidegradation analysis. Such analysis needs to be part of the initial assessment, unless the Central Valley Water Board previously granted the use and if the previously granted use of assimilative capacity was supported with an antidegradation analysis.

Discharges that fall within Category 3 will generally be determined by the Central Valley Water Board to be consistent with the Recommended Nitrate Control Program, and alternative permitting approaches do not need to be employed. With respect to further actions, permittees will likely be required to conduct additional monitoring to ensure that the trigger level of 75% of the applicable water quality objective is not being exceeded.

- Category 4 – Discharges categorized under this Category are those where the average concentration of nitrate in the Shallow Zone is better than the applicable water quality objective (e.g., < 10 mg/L-N), but it is reasonably anticipated that discharge will cause the

average nitrate concentration in the Shallow Zone to exceed the 75% trigger but not the applicable water quality objective over the 20 year planning horizon (e.g., Shallow Zone will be between 7.5 mg/L and 10 mg/L in 20 years).

Discharges that fall within Category 4 must be supported with an antidegradation analysis. Such analysis needs to be part of the initial assessment, unless the Central Valley Water Board previously granted the use and if the previously granted use of assimilative capacity was supported with an antidegradation analysis.

Authorizing use of assimilative capacity above the trigger level under the Recommended Nitrate Control Program will trigger the need for an Alternative Compliance Project. Although technically the Central Valley Water Board has the existing legal authority to authorize use of assimilative capacity up to the applicable water quality objective, the Recommended Nitrate Control Program includes triggers to provide for a margin of safety in protecting water quality. By allowing a discharge to encroach into this margin of safety, the Recommended Nitrate Control Program finds it appropriate for there to be an Alternative Compliance Project that accompanies any such request for use of assimilative capacity. The requirements for an Alternative Compliance Project are discussed further in Part 5.

- Category 5 – If a nitrate discharge exceeds the applicable water quality objective (e.g., > 10mg/L-N) as it reaches the Shallow Zone and the Shallow Zone has no assimilative capacity, or if the discharge causes the Shallow Zone to exceed the applicable water quality, then the Central Valley Water Board must grant an Exception to permit the discharge.

The granting of an Exception is an alternative permitting approach that must be accompanied with an Alternative Compliance Project. To obtain an Exception, the nitrate discharger must submit an application that meets the requirements as set forth in the Exceptions Policy.

Part 5 – Propose Alternative Compliance Project

For permittees under Path A that seek the use of assimilative capacity above the trigger level (i.e., Category 4), or need an Exception, the initial assessment must include a proposal for an Alternative Compliance Project. At a minimum, an Alternative Compliance Project must include the following:

- (1) Identification of public water supply and domestic wells that are contaminated by nitrate and that are in 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 that will be taken to meet the management goals of the Salt and Nitrate Management program, which may be phased in over time.

The Central Valley Water Board has developed *Guidelines for Developing Alternative Compliance Projects*, which may be used by permittees as they develop their Alternative Compliance Project.

Path B Permittees – Preparation and Participation in a Management Zone

The Recommended Nitrate Control Program includes an alternative permitting approach for that allows permittees to work collectively in a Management Zone. The first step in developing a Management Zone is development and submission of a Preliminary Management Zone Proposal to the Central Valley Water Board according to the requirements and timeline specified in the Recommended Nitrate Control Program. The purpose for preparing a Preliminary Management Zone Proposal is to provide all permittees within the specified area for that management zone with enough information to make an election for complying Recommended Nitrate Control Program via Path A (as an individual permittee/third party group), or via Path B (participant in a management zone).

Upon receiving a Preliminary Management Zone Proposal, Central Valley Water Board staff will make the proposal available on the Board's website and will review the proposal for consistency with the Recommended Nitrate Control Program and provide feedback to the initiating permittees. From the feedback received, the initiating permittees, and additional permittees that have decided to join the Management Zone, will work cooperatively to develop a Final Management Zone Proposal. In its development of the Preliminary Proposal as well as the Final Proposal, permittees are required to seek out input and cooperation from other stakeholders in developing the Management Zone from a governance structure, and in developing the Management Zone Implementation Plan. As detailed in the Recommended Nitrate Control Program, the Management Zone Implementation Plan must address nitrate drinking water issues within the Management Zone as well as include a plan that addresses nitrate in groundwater over the long-term. The long-term plan may include, but is not limited to, management practices that permittees are and will be implementing to address nitrate loading to groundwater. It may also include groundwater recharge projects in coordination with groundwater sustainability agency efforts, and other long-term efforts that are designed to address nitrate levels in groundwater over many years.

Because Management Zones are designed to address nitrate in groundwater from a long-term, comprehensive stand point, the Central Valley Water Board has additional flexibility for permitting discharges of nitrate to groundwater. This includes allocating assimilative capacity to permittees participating in the Management Zone based on a volume-weighted average in the Upper Zone, or by granting an Exception to all permittees in the Management Zone. Further, the comprehensive Management Zone Implementation Plan is the equivalent of an Alternative Compliance Project. Under a Management Zone approach, participating permittees are not required to submit individual applications for an Exception, or an initial assessment. Rather, the Management Zone submittals are designed to provide the necessary information for permittee participants.

Once a Management Zone Implementation Plan is submitted to the Central Valley Water Board, the Central Valley Water Board will look to amend permits for the participating permittees that incorporates requirements for implementing the Management Zone Implementation Plan, and that allows for nitrate discharges to groundwater either through the use of volume-weighted assimilative capacity or through granting of an Exception. Such permit amendments, and the Management Zone Implementation Plan, will be subject to notice, comment and hearing before the Central Valley Water Board.

Examples of Various Permitting Scenarios

Publicly Owned Treatment Works/Point Source Industrial Discharge

POTW A is located in a high priority basin for nitrate and receives a Notice to Comply from the Central Valley Water Board on July 1, 2019. POTW A's effluent has an average nitrate concentration of 12 mg/L-N, and POTW A applies the treated effluent to alfalfa fields owned and operated by POTW A. After receiving the Notice to Comply, POTW A decides that it does not want to participate in a Management Zone but would rather continue to be an individual permittee under Path A. Accordingly, POTW A conducts an initial assessment.

In conducting the initial assessment, POTW A evaluates existing groundwater data to determine background levels for nitrate in the Shallow Zone, and finds that the average nitrate concentration in the Shallow Zone is 8 mg/L-N. Also through its initial assessment, POTW A determines that after plant uptake, the reasonable, average amount of nitrate that enters the Shallow Zone is 6 mg/L-N. Under this scenario, because the discharge as it enters the Shallow Zone is below the water quality objective of 10 mg/L, and less than the average nitrate concentration in the Shallow Zone (8 mg/L-N), the discharge does not cause degradation. As a result, POTW A will indicate in its initial assessment that the discharge falls within Category 1. Further, POTW A finds that its discharge of 6 mg/L-N as it enters the Shallow Zone is not causing any domestic or public supply well to exceed the nitrate drinking water standard of 10 mg/L, and no Early Action Plan is necessary. Here, in this example, no special consideration is necessary because the discharge complies with the applicable water quality objective, does not impact the applicable beneficial use, and does not cause water quality degradation. Similarly, where the discharge has a nitrate concentration of 10 mg/L or less as it enters the Shallow Zone, and where the underlying Shallow Groundwater is above 10 mg/L, the discharge is not causing degradation because it is equal to or better than the water quality objective and it is better than the ambient condition in the Shallow Groundwater Zone.

At the other end of the spectrum, POTW A finds in its initial assessment that it discharges to a Shallow Zone where the average nitrate concentration exceeds the applicable water quality objective ($> 10\text{mg/L-N}$), and the discharge as it reaches the Shallow Zone also exceeds the objective (e.g., $> 10\text{mg/L-N}$). Further, across the road and down gradient from POTW A is a domestic drinking water well, and nitrate in the domestic well exceeds the nitrate drinking water standard of 10 mg/L-N. In this example, POTW A is in an area where no Management Zone has formed, thus joining a Management Zone is not an option. Accordingly, POTW A will need to either decide to upgrade its treatment process to lower nitrate levels in the effluent as it reaches the Shallow Zone, or apply for an Exception pursuant to the Exceptions Policy. For the Central Valley Water Board to grant an Exception, the permittee will need to submit an application that meets the requirements of the Exception Policy and propose an Alternative Compliance Project. Also, POTW A will need to prepare an Early Action Plan that identifies how it intends to work with the owner/user of the domestic well to ensure that the user of groundwater has compliant drinking water. Options for POTW A to consider may include: providing assistance to dig a deeper well, installing a Point of Use Treatment device in the

home, providing assistance for the domestic well to connect to a nearby public water supply, or, as an interim step, provide bottled water.

For the other three categories in between, the level of degradation to the Shallow Zone is the deciding factor with respect to the need for and level of additional actions that may be imposed by the Central Valley Water Board under the Recommended Nitrate Control Program. As explained previously, minimal or limited degradation may require some additional level of monitoring, depending on the amount of degradation. For degradation above the trigger level, an Alternative Compliance Project will need to be proposed and implemented.

Based on its findings in the initial assessment, POTW A decides to remain under Path A even though a Management Zone has formed for its area. POTW A must then submit its initial assessment, Notice of Intent and Early Action Plan (if applicable) to the Central Valley Water Board no later than May 27, 2020. Sixty days later, POTW A must start implementing the applicable Early Action Plan. The Central Valley Water Board will review POTW A's initial assessment and determine if permit revisions are necessary as compared to POTW A's existing permit. If changes to POTW A's permit are necessary, the Central Valley Water Board will amend POTW A's permit according to applicable amendment procedures, which includes notice, public comment, and hearing before the Central Valley Water Board.

Irrigated Lands – Third Party Programs

Irrigated lands Coalition B covers a large geographic area, and almost all land within Coalition B boundaries is in a non-priority basin, except for one specified groundwater subbasin. Coalition B receives a Notice to Comply for its members that are within the priority groundwater subbasin. Coalition B decides that for this specified area, it wishes to develop a Management Zone and prepare a Preliminary Management Zone Proposal. Coalition B then works with the Central Valley Water Board to identify other permittees in the defined area that also discharge nitrate, and Coalition B and the Central Valley Water Board take efforts to reach out to these other permittees to determine if they too are interested in developing and participating in a Management Zone. Simultaneously, Coalition B is notifying and communicating with its members in the defined groundwater subbasin of the subbasin's priority status and Coalition B's efforts to develop of a Preliminary Management Zone Proposal.

Coalition B then works with other permittees to develop a Preliminary Management Zone Proposal. The group preparing the Preliminary Management Zone Proposal morphs from Coalition B to Management Zone Group 1. As part of developing the Preliminary Management Zone Proposal, the group also evaluates all readily available data and information to determine if there are public supply wells or domestic wells within the Management Zone boundaries that exceed nitrate water quality objectives. If so, Management Zone Group 1 must prepare an Early Action Plan for submittal along with the Preliminary Management Zone Proposal. The Early Action Plan must begin to be implemented 60 days after submittal.

Between submittal of the Preliminary Management Zone Proposal and the Final Management Zone Proposal, the Central Valley Water Board informs Management Zone Group 1 of the additional permittees that indicated on their Notice of Intent their selection of Path B for complying with the Recommended Nitrate Control Program. Through a governance and

financing structure developed by Management Zone Group 1, the collective permittees then prepare a Final Management Zone Proposal and Management Zone Implementation Plan. Further, based on its evaluation of data and information related to groundwater conditions in the Upper Zone of the Management Zone area, Management Zone Group 1 decides that there is sufficient assimilative capacity on volume-weighted bases to assimilate the nitrate discharges from the permittees covered by the Management Zone, as well as other nitrate contributions to the Upper Zone. Accordingly, as part of the Management Zone Implementation Plan, Management Zone Group 1 provides the Central Valley Water Board with an antidegradation analysis to support use of the assimilative capacity. Or, in the alternative, Management Zone Group 1 decides that there is not sufficient capacity and requests that the Central Valley Water Board adopt an Exception for nitrate discharges for permittees participating in Management Zone Group 1, which includes members of Coalition B.

After receiving the Management Zone Implementation Plan, the Central Valley Water Board will need to provide notice and opportunity for public comment on the Implementation Plan and hold a hearing to consider adoption. Simultaneously, the Central Valley Water Board will consider amending permits for participating permittees, including Coalition B's General Order, to incorporate requirements associated with implementing the Management Zone Implementation as well as to allow for nitrate discharges to groundwater from participating permittees. For Coalition B, the requirements may be limited to those members that within the Management Zone boundary area rather than being applied broadly to all Coalition B members.