

State Water Resources Control Board
Ex Parte Communication Disclosure Regarding Pending Order

Pending Order

Draft Order WQ re: Waste Discharge Requirements General Order R5-2012-0116

Name, title, contact information of person completing form

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Date, time, location of meeting

May 2, 2017, 5:00 p.m. – 6:30 p.m., Cal-EPA Building

Type of Communication

Both oral and written communication occurred.

Participants

Member Dorene D'Adamo
Darrin Polhemus
Phil Wyels
Emel Wadhvani
Phoebe Seaton
Parry Klassen
Jennifer Clary (via telephone)
Jennifer Spaletta
Mike Wakeman
David Cory
Deborah Ores
Mike Claiborne
Tess Dunham

Name of person(s) who initiated the communication

Amy Kauba

Describe Communication

Reviewed the written materials provided at the meeting, which are attached.

5/2/17 - For discussion purposes only

New Concept: Develop groundwater protection targets tied to potential nitrogen impacts to groundwater

Applied nitrogen is used by crops, otherwise consumed in the field, and sometimes lost to the atmosphere. Any applied nitrogen that is not used in one of these ways remains as a residual in the soil. Residual applied nitrogen has the potential to leach to groundwater and contribute to exceedances of nitrate water quality objectives for groundwater. The magnitude of the threat of nitrate loading to groundwater from residual applied nitrogen depends on several factors including soil type and chemistry, the amount of precipitation and/or applied water recharged through the soil, and the hydrogeology of a given area. Ideally the threat of nitrogen loading to groundwater from residual nitrogen can be expressed as a concentration of nitrate in water below the root zone that can be compared to the observed nitrate concentrations in groundwater in a given region.

Currently the Order requires a computed individual ratio of applied nitrogen to crop yield (A/Y) as a method to estimate nitrogen use efficiencies for purposes of agronomic performance. However, this ratio does not provide information about total potential nitrogen that will reach groundwater over specific geographic areas. Stakeholders believe a new measurement or value can be developed that will help evaluate potential nitrogen impacts to groundwater.

While current science can provide estimates of what this value could be for some crops, more complete science and research regarding the amount of nitrogen removed by different crops, and the interactions between residual nitrogen in soil, recharge water, and soil chemistry is needed.

The value would be a management tool to address potential nitrogen impacts to groundwater in conjunction with trend monitoring and best practicable treatment or control methods. The value alone would not be an enforceable standard but could form part of a line of evidence in developing an enforcement action.

[NOTE - As is shown below, there is some disagreement between AG and EJ about whether this new metric would be computed and evaluated on a field by field or township by township basis.]

1. Establish Formula for Computing Township Nitrogen Potential and Compute Nitrogen Potential in High Vulnerability Areas

By July 1, 2020, Third Parties shall propose a Nitrogen Impact Value to compute the annual nitrogen impact potential in high vulnerability areas. The formula shall account for the total applied nitrogen, the total removed nitrogen, precipitation and recharge conditions during the applicable time period, and any other relevant and scientifically justified factors. The formula shall be capable of generating a value expressed as a concentration of nitrate in water (e.g. 10mg/L).

The Executive Officer shall approve the formula, and any proposed revisions to the formula going forward, after the opportunity for public review and comment.

Beginning with the first GWMP annual report that is at least 60 days after EO approval of the formula,

the Third Parties shall include computed values for each township in the GWMP annual report

Comment [J1]: Should discuss. Ag wants values computed on township basis. EJ wants them computed on a field basis.

2. Establish Target Township Values

By July 1, 20[] the Third Parties shall also propose a Target Value for each township subject to a GWMP. The Target Township Values shall become part of the GWMP and shall be re-evaluated at least once every five years. The Executive Officer shall approve the original and any modified Target Township Values after opportunity for public review.

Comment [2]: Ag groups think 2020 is earliest this can be done, EJ groups would like it earlier.

Target Values shall represent the GWMP goal for the Computed Value that will be protective of groundwater quality such that residual nitrogen from irrigated lands, accounting for recharge and other relevant factors, will not cause or contribute to an exceedance of the nitrate water quality objective in the receiving groundwater. The Target Value shall be expressed as the concentration of residual nitrate in water that has the potential to leach to groundwater. The Target shall be informed by the Third Parties' groundwater assessment report, MPEP and trend monitoring program.

3. Address Differences Between the Computed Value and the Target Value

In the first annual GWMP report due at least 60 days after the EO approves the Target Township Value, the Third Parties shall include in the annual report a comparison of the Computed Value for the Township and the Target Township Value for each township. To the extent that the Computed Value exceeds the Target Value, the Third Party annual report shall describe the plan to reach the target value, including a time schedule for meeting plan milestones as soon as practicable, but not to exceed the deadline for achieving compliance identified in the GWMP. The plan and milestones shall be approved by the Executive Director after public review and shall become part of the GWMP.

Comment [J3]: EJ folks want computed and target values by field. Ag does not support field level data reporting and does not believe it can compute these groundwater protection values for each field properly.

Comment [J4]: EJ folks want the plan to include Coalition identifies members who they believe are causing the problem. Coalitions do not want to do this because it moves into an enforcement role.

THE PURPOSE OF THE NEXT STEP IS TO WORK TO BRING COMPUTED TOWNSHIP VALUES DOWN TO TARGET VALUES WHERE NEEDED. THERE ARE DIFFERENT APPROACHES TO THE NEXT STEP SUGGESTED BY THE EJ AND AG FOLKS:

Ag Folks concept:

Beginning _____, Third Parties shall use the information provided by Members as part of Nitrogen Management Summary Reports to evaluate individual nitrogen impact potential by comparing applied and removed nitrogen (A-R) for all Members located in a high vulnerability area subject to a Groundwater Management Plan (GWMP). The Third Party shall provide additional focused outreach and education to all Members with A-R values in the top 10% among Members in the Township above the township target, prioritizing outreach if needed to the highest A-R values. In any case, all growers reporting above the township target 2 years after it is established will be subject to additional focused outreach.

Comment [J5]: Proposed by EJ. Ag has not discussed this yet.

This effort shall include education about the potential localized effects of nitrate impacts on groundwater, even with best management practices, that may impact shallow groundwater supporting domestic beneficial uses. This effort shall also include education about the factors that can influence the amount of residual nitrogen (A-R) that is able to leach past the root zone, such as soil type and chemistry, nitrogen application methods, rates and timing, irrigation practices, precipitation, recharge, site conditions and wellhead protection. Third Parties shall describe these additional outreach and

education efforts in the annual report for each GWMP.

EJ Folks concept:

Changes to Nutrient Summary Report Analysis

Beginning with the first Nutrient Management Summary Analysis submitted at least 60 days after adoption of these requirements, the third party shall report A-R values per acre by township, and for each field within each township.

Beginning with the first Nutrient Management Summary Analysis submitted at least 60 days after adoption of Township Target Values, the third party shall report A-R or Computational Value by field for each township in high vulnerability areas compared to the Township Target Value in order to identify fields where nitrogen loading exceeds the Township Target Value. Growers with fields that significantly exceed the Township Target Value shall be subject to additional targeted outreach.

Draft Points of Agreement¹

Between certain Agricultural representatives and environmental justice advocates acting on behalf of the AGUA Coalition

Issue of Discussion	Original Adopted Order	State Board Proposed Revision	Proposed Joint Alternative	Additional items discussed but not resolved
<p>Farm Evaluation Submittals, and frequency thereof</p>	<p>Frequency of farm evaluation submittal varied based on low vulnerability area versus high vulnerability area.</p>	<p>All operations must submit evaluations annually, regardless of vulnerability of the area in question.</p>	<p>After obtaining three years of Farm Evaluations, the Executive Officer may approve a reduction in the frequency of updates and submission of Farm Evaluations, if the third party can demonstrate that year to year changes are minimal. A significant change will trigger a report.</p>	<p>The frequency of submittal of Nitrogen Summary Reports to third parties for growers in low vulnerability areas may be reduced after some initial reporting period, of not shorter than three years, but more discussion is needed.</p>
<p>Vulnerability Determinations, Nitrogen Management Plans, and Nitrogen Summary Reports</p>	<p>All members are required to prepare a nitrogen management plan but only growers in designated high vulnerability areas are required to have such plans certified, and submit Nitrogen Summary Reports to the third party.</p>	<p>All members, regardless of vulnerability must prepare an Irrigation and Nitrogen Management Plan, and all members must submit a Nitrogen Summary Report.</p>	<ul style="list-style-type: none"> • Maintain vulnerability determinations as already approved by the CVRWQB. • All members submit a Nitrogen Summary Report, unless the third party shows no nitrogen threat to groundwater (e.g., Sacramento Valley Rice, parts of the Delta). • No certification of nitrogen summary report required for growers in low vulnerability areas. • Third party can phase in nitrogen summary reports for low vulnerability growers over 3 yrs. • Annual education/outreach for all members 	<p>The frequency of submittal of Nitrogen Summary Reports to third parties for growers in low vulnerability areas may be reduced after some initial reporting period, of not shorter than three years, but more discussion is needed.</p>

¹ The items identified were reached through joint discussions with multiple irrigated agricultural coalitions as well as Environmental Justice representatives. The items represented are not intended to imply that all agricultural coalitions and/or agricultural entities support the agreements in whole or part contained in this table, nor does it mean that all environmental justice organizations support the agreements in whole or part. Moreover, the discussions represented here are not meant to apply to the General Order for Rice Growers in the Sacramento Valley as the Rice General Order is unique in its applicability to its members.

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<p>Information on Individual Nitrogen Summary Reports</p>	<p>MRP requires Summary of Reported Nitrogen Data to be, at a minimum, the statistical summary of nitrogen consumption ratios by crop or other equivalent reporting units and the estimated crop nitrogen needs for the different crop types and soil conditions. Summary will describe the range, percentiles and any outliers.</p>	<p>Individual Nitrogen Summary Reports must include information to determine grower performance as compared to Applied/Removed (A/R) ratio for nitrogen, and an Applied-Removed difference for nitrogen, as defined by included equations.</p>	<ul style="list-style-type: none"> • Maintain current reporting system of growers calculating A and A/Y. Third parties then use the A and A/Y information to calculate estimated A/R and A-R. To calculate R, third parties use a nitrogen removed conversion factor identified through the NMP TAWG, on the CDFA website. • Third Parties, through the MPEP, develop and propose Nitrogen Efficiency Performance Metrics, by Crop, by a date certain (e.g., July 1, 2020), for approval by EO. (See discussion immediately below for more detail.) 	<p>There has been general discussion with respect to having growers report to the 3rd party estimated total pounds of nitrogen applied from irrigation water. The Ag representatives are considering this but have yet to agree that this is necessary.</p>
<p>Nitrogen Efficiency Performance Metrics</p>	<p>(Same as above)</p>	<p>Requires identification of N removed coefficients for 95% of cropland by 2019.</p> <p>Requires reporting of 3-year running average of N</p>	<ul style="list-style-type: none"> • Third Parties, through the MPEP, shall develop crop by crop metrics (“Nitrogen Efficiency Performance Metric”) that reflect the appropriate ranges of nitrogen fertilizers that should be applied as compared to the amount of nitrogen that is removed by the crop (e.g., A/R or A/Y, or other metric that is determined to reflect what may constitute best practicable treatment or control or best efforts). 	<p>Need to identify which crops or crops equally what percentage of acreage must have metrics developed by which years.</p>

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Nitrogen-Based Groundwater Protection Targets	None	None	<ul style="list-style-type: none"> Metrics or range of metrics for crops covering xx% of Central Valley cropland (excluding rice) need to be proposed to the Regional Board by July 1, 2020, and xx% of Central Valley cropland (excluding rice) by July 1, 2023. Regional board releases proposed metrics for public review promptly after receipt. Regional Board EO approves appropriate metrics promptly after opportunity for public review and comment. Review and update if needed at least once every 5 years. Approved metrics are an appropriate line of evidence to be used to determine if an individual grower is implementing BPTC or Best Efforts, recognizing that site and case specific information is relevant to any final determination. <p>Use of the crop specific metrics as a line of evidence should take into account and consider situations where the same grower is growing the same crop on the same field over a specified time period, (e.g. 3-year running average), as well as consider growers that change fields or crops from year to year (e.g., single year data or other approved alternative).</p> <ul style="list-style-type: none"> Third Parties shall develop and propose a Nitrogen Impact Formula to compute total potential nitrogen impact for each township in a high vulnerability area (or functionally 	There was no resolution as to reliance on geographic units different from

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			<ul style="list-style-type: none"> equivalent geographic area). Third Parties shall develop Nitrogen Impact Target goals (based on the Formula), for each township in a high vulnerability area (or functionally equivalent area), to protect water quality. The Formula as well as the Target goals are both subject to public review and EO approval. (See section above on nitrogen efficiency performance metrics for review process.) The Nitrogen Impact Formula should include, consideration of precipitation and recharge, and Target goals should be computed for the defined geographic area taking into consideration local data and information. GQMP's need to be amended to include computed targets and milestones for meeting the targets for each township in a high vulnerability area. Third Parties are to review individual grower data and information to determine if they are meeting the township based target, and will need to target those that are not meeting the target for additional outreach and education. 	<p>townships and how those units would be identified or approved.</p> <p>EJ representatives are concerned that reporting this metric by township can lead to unidentified hot spots of nitrogen contamination that could impact small systems and domestic well users.</p> <p>EJ representatives wanted some way to identify areas of high loading and to test water quality in potentially impacted wells.</p> <p>EJ representatives want growers to be identified on a field or APN basis if their A-R significantly exceeds the Township Target.</p> <p>Ag representatives are</p>

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<p>Annual NMP Summary Report Analysis for Coalition Area</p>	<p>Coalitions required to provide an Annual NMP Summary Report Analysis to the board</p>	<p>Continues requirement for Coalitions to provide an Annual NMP Summary Report Analysis to the Regional Board and provides more specific direction on analysis</p>	<ul style="list-style-type: none"> The Annual NMP Summary Report Analysis developed by coalitions includes, in addition to current analysis, additional breakdown and analysis of field level ratio data (A/R) by township for all crops (e.g., whisker plots) and by crop across the Coalition. The Annual NMP Summary Report to include analysis of A-R for all crops in the township, aggregated together. Once agronomic ranges are established (see discussion of Nitrogen Efficiency Performance Metrics above), they will be incorporated into the analysis for crops. 	<p>willing to focus education and outreach to growers that are not meeting the Township Target, but, ag representatives are not supportive of calling out those fields/operations within the township if they are not meeting the Township Target (even if the actual grower entity's name is based on an anonymous grower id number).</p>

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Nitrogen Summary Report Template	Third Parties are to develop a Nitrogen Summary Report template that is then reviewed and approved by the Executive Officer.	Draft Order proposes to revise the approved Nitrogen Summary Report template.	Central Valley Water Board, third parties and other interested stakeholders should re-evaluate the Nitrogen Summary Report template, and revise as determined appropriate to obtain the most accurate information possible. The State Board's Order should not dictate revision of the template.	
Incentive for Pump & Fertilize	Regional Board Order fails to include incentive for "pump and fertilize."	Proposed order fails to include incentive to growers to "pump and fertilize."	<ul style="list-style-type: none"> Revise order to state that growers that certify that no synthetic or organic fertilizer is applied are exempt from needing to obtain certification of the Nitrogen Management Report template even if the grower farms within a high vulnerability area. For growers that are using high nitrogen groundwater for fertilization and do not apply synthetic or organic fertilizer, they shall not be considered an outlier regardless of their A/R ratio. Growers subject to the annual Nitrate Summary Report requirement that are using high nitrogen groundwater for fertilization and do not apply synthetic or organic fertilizer will continue to submit their annual summary report with all required information to the Third Party. 	
Level of Grower	Field level data is not	Grower Specific	For those subject to requirements to submit	EJ representatives

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<p>Data and Information to Be Submitted to the Regional Board</p>	<p>provided to the board.</p>	<p>Nitrate Summary Reports submitted electronically to the Regional Board (i.e., public record, no protection of privacy).</p>	<p>Grower Specific Summary Reports to the Coalition (i.e., high vulnerability), Third Party submits to Regional Board the Grower Specific information from the Summary Reports in electronic format excluding name, address, parcel numbers and township location. Each grower's information will have a unique numeric identifier and indicate the sub-basin or basins where the management unit or units are located. Information should be presented in a manner that allows data to be searched via the grower identification number, and / or via the sub-basin.²</p>	<p>would like there to be a numeric identifier tied to the field and/or apn so that the real property in question can be tracked over time.</p> <p>Coalition representatives are concerned that an additional identifier based on field or APN is administratively impractical and not necessary in light of groundwater protection targets.</p>
<p>Domestic Well Monitoring</p>	<p>No requirement for monitoring of domestic drinking water wells on all Member parcels, as applicable.</p>	<p>Require all members to monitor domestic wells on Member parcels by end of 2016. All results must be included in third party's monitoring report. For any domestic well that exceeds the nitrate drinking</p>	<ul style="list-style-type: none"> Requirement shall not become applicable immediately and shall be delayed to give time to develop a more efficient and comprehensive program. The provision would not become applicable if another law (state or local) comes into effect that similarly requires monitoring and public reporting of domestic wells. A member that is a lessee, but not a property owner, would not be responsible for testing domestic wells that are located outside of 	<p>There was some agreement to delay the requirement but no agreement was reached on the amount of time.</p> <p>Coalition representatives also agree that the irrigated lands</p>

² As defined by Bulletin 118.

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		<p>water standard, member or third party must provide notice to the Regional Board within 24 hours.</p>	<p>the leased property area under the control of the lessee.</p> <ul style="list-style-type: none"> Requirement to monitor domestic wells would be on each Member directly, and each Member would report information directly to a State Board database through electronic submittals from certified laboratories. The State Board will provide data and submission info to the Regional Board to enable Regional Board enforcement of this requirement directly with each member. Regional and State Board will work together, in consultation with stakeholders, to develop process for effective public health notifications. Third parties would not have the requirement/obligation to ensure that individual members were complying with this Order requirement. The Regional Board would be responsible for ensuring compliance directly with each member. Third parties would convey to members the need to complete such testing and available local resources to comply with this requirement, but would not be required to follow up and ensure that such testing was completed. To the extent that the results are then made available on geotracker or other state database, third parties would use the available data, just like any other available 	<p>program is not the appropriate program for this requirement, but only some are able to support a delay of the program in order to work towards implementation of a more universal program.</p> <p>EJ Representatives support delay until 2 January 2018, and some Coalition interests support delay until 2 January 2019. Testing would then need to be completed by 1 April 2018/2019 if it did become applicable.</p> <p>Coalition representatives support a provision that would exclude any wells that for used by the Member and/or the Member's immediate family -- EJ</p>

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			<p>data, in GAR updates or other relevant plans or analyses.</p> <ul style="list-style-type: none"> • Third party may, at their discretion, conduct such monitoring for Members or provide additional resources for compliance as an additional service but not as a mandated requirement. 	<p>representatives do not support this additional narrowing of the requirement.</p>