



---

## Central Coast Regional Water Quality Control Board

May 25, 2023

Sarah Lopez  
Executive Director  
Central Coast Water Quality Preservation, Inc.  
Email: [Sarah@ccwqp.org](mailto:Sarah@ccwqp.org)

VIA ELECTRONIC MAIL ONLY

**RE: Review and Comment on the 35% workplan for the Third-party Alternative Compliance Pathway for Groundwater Protection**

Dear Sarah Lopez:

Central Coast Regional Water Quality Control Board (Central Coast Water Board) staff received the 35% workplan for the Third-party Alternative Compliance Pathway (ACP) for Groundwater Protection on April 15, 2023. We appreciate Central Coast Water Quality Preservation, Inc.'s efforts to develop an alternative compliance pathway for groundwater protection as part of a comprehensive third-party compliance assistance program. Following review of the 35% workplan, the Executive Officer determined the proposed Groundwater Protection Areas, Formulas, Values and Targets concepts are generally aligned with the requirements of the Agricultural Order. However, some specific areas of the 35% workplan do not meet the requirements of the Agricultural Order<sup>1</sup> and associated Monitoring and Reporting Program (MRP) as noted below.<sup>2</sup> This memo summarizes the 35% workplan revisions required to meet the requirements. Specific comments are also included in a copy of the 35% workplan, attached to this memo.

### Proposed Groundwater Protection Areas

The proposed groundwater protection areas (GWP Areas) are not supported with scientific justification for all of the required elements, including hydrology, groundwater basin and subbasin areas, recharge areas, land uses, cropping patterns, and potential third-party membership coverage by acreage and number of members.<sup>3</sup> The 35%

---

<sup>1</sup> General Waste Discharge Requirements for Discharges from Irrigated Lands, Order No. R3-2021-0040: [https://www.waterboards.ca.gov/centralcoast/water\\_issues/programs/ilp/docs/ag\\_order4/2021/ao4\\_order.pdf](https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/docs/ag_order4/2021/ao4_order.pdf)

<sup>2</sup> Agricultural Order No. R3-2021-0040 Attachment B, Monitoring and Reporting Program: [https://www.waterboards.ca.gov/centralcoast/water\\_issues/programs/ilp/docs/ag\\_order4/2021/ao4\\_attachment\\_b.pdf](https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/docs/ag_order4/2021/ao4_attachment_b.pdf)

<sup>3</sup> Agriculture Order requirements for Groundwater Protection Areas, Formulas, Values, and Targets, page 34 paragraphs 15.a and b.

workplan proposes GWP Areas based on California Department of Water Resources (DWR) Bulletin 118 basin delineations, many of which are very large and include large discrete blocks of open space and/or disparate cropping patterns (i.e., perennial crops versus row crops). The DWR groundwater basin delineations are based on geologic and hydrologic boundaries, and in some cases, Sustainable Groundwater Management Act jurisdictional boundaries, for the purpose of broad basin delineation and management with an emphasis water supply (i.e., quantity) management. Consequently, many of the proposed GWP Areas are not conducive to water quality management in conjunction with the apparent workplan assumption of complete subsurface mixing across an entire GWP Area. In particular, the proposed boundaries do not include the required consideration of land uses, cropping patterns, and potential third-party membership coverage that are necessary to delineate and understand more localized subarea nitrogen loading and recharge. Although the workplan includes “additional fine-scale criteria” for defining GWP Areas, these criteria do not appear to have been used in the delineation of the proposed GWP Areas.

Portions of large GWP Areas that include large discrete blocks of different crop types, open space, and/or localized freshwater recharge areas must either be subdivided and evaluated separately or, if combined into a single GWP Area, must include supporting scientific justification (e.g., modelling, geology, hydrogeology, etc.) and a clearly defined methodology regarding how the Formulas, Values, and Targets methodologies will address different recharge and nitrogen loading patterns in separate portions of the GWP Area. Reworking of the GWP Areas and/or Formulas, Values, Targets approach is necessary to ensure that higher rates of nitrogen discharge and associated water quality impacts do not occur in portions of larger basins based on an unsupported assumption of complete water quality mixing and the averaging of nitrogen loading across entire GWP Areas.

#### Proposed Groundwater Protection Formulas

The proposed additional nitrogen balance terms for the GWP Formula lack sufficient supporting scientific justification required by the Agricultural Order’s MRP.<sup>4</sup> For terms that are “widely acknowledged” as part of the nitrogen cycle, the 35% workplan is lacking explanation of how those terms will be quantified and how accuracy of those quantified terms will be determined. However, we will accept inclusion of these terms at this time with the understanding that the missing required information will be provided during the development of the 70% workplan, with one exception: the term proposed for nitrogen removed in off-farm surface flows requires additional supporting scientific justification in the 35% workplan. This term lacks a clear explanation of how it will be quantified and verified. Please note that nitrogen in surface runoff from farms and ranches needs to be reduced to the maximum extent possible to achieve compliance with surface water quality objectives and runoff shouldn’t be construed as a management practice for groundwater protection.

The proposal to develop a library of nitrate leaching estimates lacks sufficient explanation and supporting scientific justification in the body of the workplan. In

---

<sup>4</sup> Agriculture Order MRP requirements for GWP Formulas, page 21 paragraph 3.b.

addition, the workplan needs to include a clear description and associated justification regarding how and under what circumstances library estimates will be used and any circumstances under which library estimates would be used to modify or replace grower reported data from the INMP Summary Report. Please also include a summary of the performance (e.g., calibration and accuracy verification) of the Central Valley library estimates in the supporting scientific justification.

#### Proposed Groundwater Protection Target Methodology and Objectives

The objectives of the proposed GWP Target methodology require revision to include establishing a GWP target schedule that will result in nitrogen discharge reductions over time such that it no longer causes or contributes to exceedances of water quality objectives.<sup>5</sup> In addition, the methodology to calculate the final GWP Target requires additional clarification. Consideration of the zone of influence and uniformity of mixing from recharge sources is necessary. Further, the inclusion of recharge from all land uses and surface waters over large scale GWP Areas (i.e., Bulletin 118 basins) is not scientifically justified (see Proposed Groundwater Protection Areas discussion above).

#### Proposed Follow-up Action and Consequence Concepts

The concepts proposed meet the requirements of the 35% workplan. In particular we concur with the proposed component related to individual third-party member accountability to ensure fairness to growers expending resources in a good faith effort to comply with the ACP.

#### Proposed Assessment and Evaluation Program Outline

The proposed Assessment and Evaluation Program outline meets the requirements of the 35% workplan. However, the objectives must be revised to include the requirement for this program to be scaled spatially and temporally in coordination with the third-party's regional groundwater quality trend monitoring program.<sup>6</sup>

#### General Comments

We found the workplan confusing with respect to the overall ACP approach described in the workplan introduction (Section 1) and how the different elements (i.e., Groundwater Protection Areas, Formulas, Values, and Targets) work together to effectively evaluate and achieve groundwater quality protection with respect to the drinking water standard for nitrate.<sup>7</sup> We suggest including a clear and concise summary of the overall ACP approach and associated elements in the executive summary and/or introduction to help set the stage for the more detailed element sections.

---

<sup>5</sup> Agriculture Order Findings, pages 155-156, findings 56-59.

<sup>6</sup> Agricultural Order requirement for Groundwater Protection Areas, Formulas, Values, and Targets, page 34, paragraph 15.c.

<sup>7</sup> Agriculture Order requirements for Groundwater Protection Areas, Formulas, Values, and Targets, page 34 paragraph 15.b.

Although the overview discussion of the implementation of technical and stakeholder advisory committees (TAC/SAC) in the introduction section helps provide context regarding the workplan development process, commentary in the body of the workplan regarding TAC/SAC agreement or disagreement with various elements of the proposed ACP approach doesn't provide value with respect to substantiating proposed elements of the workplan. This information is more appropriately documented within the TAC/SAC meeting minutes and should be included as an appendix if you wish to include it as part of the workplan. Ultimately, the proposed ACP must be supported by scientific justification regardless of the TAC/SAC process and associated outcomes.

Finally, the workplan section titled *General Order Requirements* should be revised so that it only contains requirements as they are stated in the Agricultural Order. Please separate sections referencing the requirement of the Agricultural Order from those interpreting those requirements.

If you have any questions or requests for additional information, please contact Mary Hamilton at [Mary.Hamilton@waterboards.ca.gov](mailto:Mary.Hamilton@waterboards.ca.gov) or 805-542-4768.

Sincerely,

Matthew T. Keeling  
Executive Officer

cc:

Thea Tryon [Thea.Tryon@waterboards.ca.gov](mailto:Thea.Tryon@waterboards.ca.gov)

Mary Hamilton [Mary.Hamilton@waterboards.ca.gov](mailto:Mary.Hamilton@waterboards.ca.gov)

Elaine Sahl [Elaine.Sahl@waterboards.ca.gov](mailto:Elaine.Sahl@waterboards.ca.gov)

Stephanie Yu [Stephanie.Yu@waterboards.ca.gov](mailto:Stephanie.Yu@waterboards.ca.gov)

R:\RB3\Shared\Ag-ILRP\35 - Third-Party Program Coordination\3P-  
ACP\workplan\Approval\R3\_comment\_letter\_on\_2023-0415\_35pct\_workplan.docx