Comment Summary and Responses Regarding the Consideration of a Proposed Resolution Approving an Amendment to the Water Quality Control Plan for the Central Coastal Basin To Establish Total Maximum Daily Loads for Organophosphate Pesticides and Toxicity in the Lower Salinas River Watershed, Monterey County

The State Water Resources Control Board (State Water Board) received one comment letter on the proposed Resolution approving an amendment to the Water Quality Control Plan for the Central Coastal Basin to establish total maximum daily loads (TMDL) for organophosphate pesticides and toxicity in the Lower Salinas River Watershed, Monterey County, hereinafter known as the "Basin Plan Amendment." The public comment period for the Basin Plan Amendment started on September 27, 2022 and closed at noon on October 28, 2022. This document contains responses to timely comment letters submitted to the State Water Board on the Basin Plan Amendment.

List of Commenters:

1. Theresa Dunham, Kahn, Soares & Conway, LLP on behalf of the Grower-Shipper Association of Central California.

Comment 1.1: On behalf of the Grower-Shipper Association of Central California (GSA), we appreciate the opportunity to review and provide comments on the Proposed Amendment to the Water Quality Control Plan for the Central Coastal Basin to Establish Total Maximum Daily Loads for Organophosphate Pesticides and Toxicity in the Lower Salinas River Watershed (Salinas Pesticide and Toxicity TMDL) as it is considered by the State Water Resources Control Board (State Water Board). As a preliminary matter, and in accordance with the State Water Board's regulations, we apologize for not previously raising our limited concerns before the Central Coast Regional Water Quality Control Board (Central Coast Water Board). Due to staffing changes at the GSA, the GSA no longer has full time staff working directly on water quality related matters. Consequently, the Central Coast Water Board's process related to this total maximum daily load (TMDL) went unnoticed until most recently when it was posted for review and comment by the State Water Board. We sincerely apologize for this inconvenience and will endeavor to stay better informed regarding Central Coast Water Board processes related to Basin Plan Amendments and TMDLs that may impact Central Coast agriculture. We appreciate that the best time to engage in these processes is directly before the regional board prior to State Water Board consideration.

Response to Comment (RTC) 1.1: Comment acknowledged.

Comment 1.2: We provide here limited comments on the Salinas Pesticide and Toxicity TMDL, which maintains previously adopted TMDLs for diazinon and chlorpyrifos and proposes to establish new TMDLs for malathion and a new additive toxicity numeric target for diazinon, chlorpyrifos and malathion combined. Our primary concern pertains to the additive toxicity target and the addition of malathion to the additive equation. Based on our review of the Technical TMDL Report and the cited references, we are unable to identify the scientific information or resources that the Central Coast Water

Board relied on to include malathion along with diazinon and chlorpyrifos in the additive toxicity equation. The Technical TMDL Report states as follows: “Chlorpyrifos, diazinon, and malathion have the same mechanism of toxic action and exhibit additive toxicity to aquatic invertebrates when they co-occur (Bailey et al., 1997; CDFW, 2000).” The two references cited for this statement do not appear to directly support the inclusion of malathion. Specifically, the Bailey reference is to an article titled, *Joint Toxicity of Diazinon and Chlorpyrifos to Ceriodaphnia Dubia*, and the CDFW 2000 reference is for water quality criteria specific to diazinon and chlorpyrifos. Neither reference appears to support the inclusion of malathion in the additive toxicity equation along with diazinon and chlorpyrifos.

RTC 1.2: The references pertaining to the additive toxicity of malathion in the presence of chlorpyrifos and/or diazinon were mistakenly omitted from the Technical TMDL report. The Central Coast Water Board will revise the Technical TMDL Report to include a discussion of additive toxicity as well as synergistic toxic effects when malathion is present in mixtures of chlorpyrifos and/or diazinon (Laetz et. al., 2009).

Comment 1.3: In general, the administrative record for Basin Plan Amendments and TMDLs must support the proposed actions. Without proper references to information being relied on by the adopting agency, it is difficult for stakeholders and members of the public to understand the basis for certain actions. Accordingly, we ask that the Central Coast Water Board identify the resources it relied on to add malathion to the additive toxicity equation as it is not evident by reading the Technical TMDL Report.

RTC 1.3: See response to comment 1.2.

Comment 1.4: Further, to our knowledge, the Central Coast Water Board’s inclusion of malathion to the additive toxicity equation is the first of its kind by any regional board. Many regional boards acknowledge and adopt TMDLs that include the equation for diazinon and chlorpyrifos. But, we believe that this is the first time that malathion has been added to this equation and the inclusion of malathion would be a scientifically based action. Because this portion of the “rule” is scientifically based (or presumed to be scientifically based), it should be subject to external peer review under the Health and Safety Code section 570004. However, our review of the Staff Report and the Technical TMDL Report do not indicate that this proposed action was subject to external peer review. Assuming that external peer review was not conducted prior to the Central Coast Water Board’s adoption of the malathion TMDL and the additive toxicity equation, we would appreciate understanding the reasoning as to why the Central Coast Water Board determined that Health and Safety Code section 570004 was not applicable.

RTC 1.4: The additive toxicity of malathion in the presence of chlorpyrifos and/or diazinon will necessitate external scientific peer review. The Central Coast Water Board will facilitate the scientific peer review accordingly, revise the Technical TMDL Report as necessary, and consider this Basin Plan Amendment and its supporting materials, with any revisions, at a future Central Coast Water Board hearing.

Comment 1.5: Thank you for providing us the opportunity to comment. Again, we apologize for raising these concerns at this point in the process and not initially before the Central Coast Water Board.

RTC 1.5: Comment acknowledged.

References:

Laetz CA, Baldwin DH, Collier TK, Hebert V, Stark JD, Scholz NL. 2009. The synergistic toxicity of pesticide mixtures: Implications for risk assessment and the conservation of endangered Pacific salmon. *Environ Health Perspect* 117:348-353.