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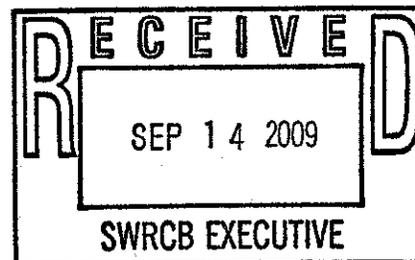
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September 14, 2009

Mark Gowdy
Water Resource Control Engineer
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814



Sent via Electronic and U.S. Mail

SUBJECT: Comments Regarding the Draft Salt Tolerance of Crops in the Southern Sacramento-San Joaquin Delta

Dear Mr. Gowdy:

The Sacramento Regional County Sanitation District (District) is pleased the State Water Resources Control Board (State Water Board) is investigating the available tools to assess the irrigation water salinity requirements for crops grown in the Southern portion of the Sacramento-San Joaquin River Delta (southern Delta). We appreciate the opportunity to submit comments on the Draft Report entitled, Salt Tolerance of Crops in the Southern Sacramento-San Joaquin Delta by Dr. Glenn Hoffman dated July 14, 2009 (Hoffman Report). The Hoffman Report details a review of applicable literature, compares steady state to transient models, reviews conditions (soil, climate, etc.) in the southern Delta, identifies data gaps, and ultimately recommends a model to determine the irrigation water requirements in the southern Delta for sensitive crops. As a member agency to the Central Valley Water Quality Association (CVCWA), we support the comments provided by CVCWA, and are providing additional comments as follows.

For a given crop, the threshold salinity value and the leaching fraction will greatly affect the resulting irrigation water quality requirements for any of the models considered. In the Hoffman Report the threshold salinity discussed for all cases is the salinity corresponding to 100% yield of crops. Specification of 100% yield as the threshold may not be necessary to provide reasonable protection for the irrigation use. Like many locations, the salinity in the southern Delta is strongly related to the water year, where in wet years the salinity is lower and critical years the salinity is higher. For dryer water years the higher salinity may result in less than 100% yield, but may be protective of the irrigation beneficial use as a whole because of the lower frequency of occurrence. Additionally, the actual yield of a crop may be lower than 100% for reasons other than the irrigation water, resulting in a scenario where the irrigation water could have a higher salinity and not affect the actual yield of the crop. To account for the condition where the crop yield is lowered for reasons other than salinity, the model would be run at a yield less than 100%.

Technology in Balance with Nature

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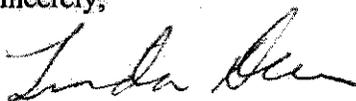
Leaching fraction of the irrigation water is also discussed in the report in relation to irrigation practices. The report should be clarified to link the irrigation practice utilized for the target crop to the selected leaching fraction used in the modeling. The Hoffman Report, as written, leads the reader to believe the leaching fraction is more a choice than a parameter determined by the conditions and crop being modeled. Underestimating the leaching fraction will result in overly stringent irrigation water quality requirements. The Hoffman Report could be enhanced by bolstering the discussion on selecting the appropriate value for both parameters based on the conditions in the southern Delta and the specific crop under consideration.

The model recommended in the Hoffman Report will be used to determine the salinity requirements of irrigation water in the southern Delta. These requirements may then be used as targets for a regional modeling effort to link the water quality at the point of use to the water quality in the southern Delta, water quality of inputs to the southern Delta, and diversions of water to determine the appropriate water quality objectives. The regional model would account for the varying salinity due to water year and conditions within the Delta. The southern Delta is a complex system and the irrigation requirements may not be the appropriate water quality objectives for the entire southern Delta.

Insofar as the Hoffman report may be used as a template for investigating the salinity requirements in other areas, the recommended model and additional study for use of alternate models are key outcomes of the Hoffman report. The Hoffman Report currently recommends the use of a steady state model due to issues with each of the considered transient models. As the transient models are acknowledged as the desired method for determining irrigation requirements, the recommendations should be expanded to link the additional study necessary for consideration of the different models.

Thank you for considering these comments. If you have any questions, please contact me at (916) 876-6030.

Sincerely,



Linda Dorn
Environmental Program Manager

cc: Stan Dean
Terrie Mitchell
Jason Lofton