

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

**ORDER R5-2014-XXXX**

**WASTE DISCHARGE REQUIREMENTS GENERAL ORDER  
FOR  
GROWERS WITHIN THE SACRAMENTO RIVER WATERSHED  
THAT ARE MEMBERS OF THE THIRD-PARTY GROUP**

**Public Comments**

California Farm Bureau Federation  
Capay Valley Coalition  
Colusa County Farm Bureau  
Colusa County Board of Supervisors  
Colusa Glenn Subwatershed Program  
El Dorado County Agricultural Water Quality Management Corporation  
El Dorado County Farm Bureau  
Glenn County Board of Supervisors  
Greg and Karen Lawley  
John and Janey Powers  
Lake County Farm Bureau  
Lisa Leonard  
North Eastern California Water Association  
Placer Nevada South Sutter North Sacramento Subwatershed Group  
Sacramento Valley Water Quality Coalition  
Susan Hoek  
Yolo County Farm Bureau  
Sacramento River Source Water Protection Program



# CALIFORNIA FARM BUREAU FEDERATION

OFFICE OF THE GENERAL COUNSEL

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Sent via E-Mail

[mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)

October 11, 2013

Mr. Mark Cady  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670-6114

**Re: *Comments on the Sacramento River Watershed Administrative Draft  
WDRs/MRP for Discharges from Irrigated Lands***

Dear Mr. Cady:

The California Farm Bureau Federation (“Farm Bureau”) is a non-governmental, non-profit, voluntary membership California corporation whose purpose is to protect and promote agricultural interests throughout the state of California and to find solutions to the problems of the farm, the farm home, and the rural community. Farm Bureau is California’s largest farm organization, comprised of 53 county Farm Bureaus currently representing more than 74,000 agricultural, associate, and collegiate members in 56 counties. Farm Bureau strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California’s resources.

Farm Bureau appreciates the opportunity to provide comments on the Sacramento River Watershed Administrative Draft Waste Discharge Requirements and Monitoring and Reporting Program (collectively “Draft WDR”) for Discharges from Irrigated Lands and respectfully presents the following remarks.

Upon reviewing the Sacramento River Watershed Draft WDR, as well as the previously adopted Eastern San Joaquin River Watershed WDR and Tulare Lake Basin Tentative WDR, Farm Bureau is concerned that the general orders are not being individually developed and tailored, but rather are duplications of previously prepared orders with *minor* revisions. Each coalition represents unique geographic characteristics, including, but not limited, to rainfall, hydrology, drainage, commodities grown, and topography. Given all of these vast differences, each general order should be individually drafted specific to the region it regulates.

NANCY N. McDONOUGH, GENERAL COUNSEL

ASSOCIATE COUNSEL:

CARL G. BORDEN • KAREN NORENE MILLS • CHRISTIAN C. SCHEURING • KARI E. FISHER • JACK L. RICE

**General Order Page 1, Finding 1—Definition of “Waste”**

The Draft WDR seeks to regulate discharges of “waste” from irrigated lands. As referenced in the footnote to Finding 1, Attachment E defines the term “waste” to not only include the statutory definition found in Water Code section 13050(d), but also adds additional language to include the regulation of “earthen materials..., inorganic materials, organic materials such as pesticides, and biological materials” as wastes which “may directly impact beneficial uses...or may impact water temperature, pH and dissolved oxygen.” (Draft WDR, Attachment E, p. 6.) No rationale is provided for the overly broad expansion of a statutorily defined term; as such, the term “waste” should be limited to its definition found in Water Code section 13050(d).

**General Order Page 2, Finding 5—Regulation of Water Quality**

The Draft WDR amends the scope of regulatory coverage by excluding specific provisions limiting the regulation of water traveling through particular structures. (Draft WDR, p. 2.) The current scope of coverage causes concern regarding the regulation of on-farm conveyances and between-farm conveyances, causing potential ambiguity regarding the point of demarcation for regulation; as currently written, the regulation could be read to regulate any water that leaves the root zone whether or not it reaches saturated groundwater. In order to provide clarity, Finding 5 should be revised.<sup>1</sup>

**General Order Pages 8-9, Findings 31-35—Compliance with the California Environmental Quality Act**

The Draft WDR relies upon the environmental analysis conducted in the Program Environmental Impact Report (“PEIR”) and concludes that “[a]lthough the Order is not identical to any of the PEIR alternatives, the Order is comprised entirely of elements of the PEIR’s wide range of alternatives.” (Draft WDR, pp. 8-9, ¶¶ 32-33.) Relying on such analysis, the Draft WDR further concludes “the PEIR identified, disclosed, and analyzed the potential environmental impacts of the Order” and the “potential compliance activities undertaken by the regulated Dischargers...fall within the range of compliance activities identified and analyzed in the PEIR.” (*Id.* at ¶ 32.) The Draft WDR is not sufficiently within the range of alternatives analyzed within the PEIR, but rather goes beyond those alternatives as it includes provisions substantially different from elements in those alternatives, especially alternatives 3 through 5. These new components, such as provisions creating end-of-field discharge limitations, the farm management performance standards, and the associated costs, do not represent merely a “variation” on the alternatives in the PEIR but rather are elements that were not thoroughly considered previously and are likely to result in the imposition of new burdens on irrigated agricultural operations that would have a significant and cumulatively considerable

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<sup>1</sup> Finding 5 could be potentially revised to state: “This Order is not intended to regulate water in agricultural fields, including, but not limited to, furrows, beds, checks, and ancillary structures, contained on private lands associated with agricultural operations. This Order is not intended to address the lawful application of soil amendments, fertilizers, or pesticides to land.”

impact on the environment. Thus, reliance on the PEIR for CEQA compliance is inappropriate.<sup>2</sup>

**General Order Pages 10-11, Finding 39-40—California Water Code Sections 13141 and 13241**

Pursuant to the Water Code, the Regional Board is obligated to consider costs associated with the entire Long-Term Irrigated Lands Regulatory Program, as well as each individual general order, such as the Sacramento River Watershed WDR. (Wat. Code, § 13141.) Finding 38 incorrectly concludes that any new cost analysis is unnecessary given that “the Basin Plan includes an estimate of potential costs and sources of financing for the *long-term irrigated lands program*.” (Draft WDR, p. 10, ¶ 38, emphasis added.) Although the Basin Plan was amended to include costs associated with the *long-term irrigated lands program*, the Basin Plan Amendment did not include specific costs associated with the Sacramento River Watershed WDR as it was not in existence at the time nor were the specific program requirements analyzed (such as the templates and individual reporting summarized by the third-party). Given that this Draft WDR proposes new costly regulatory components not previously analyzed during the environmental review stage or when adopted in the Basin Plan, the Regional Board must analyze, evaluate, and estimate all of the costs of these new regulatory requirements.

**General Order Pages 12-14—Coordination and Cooperation with Other Agencies**

Farm Bureau appreciates the provisions within the Draft WDR that describe the Regional Board’s coordination and cooperation with other agencies as well as how the implementation of the WDR will utilize such coordination and cooperation. Growers within the Sacramento Valley Watershed have a long-standing relationship with many agencies, including the United States Department of Agriculture Natural Resources Conservation Service (“NRCS”). To highlight this relationship, a provision should be added, such as Provision 52 in the San Joaquin County and Delta Draft WDR stating:

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) administers a number of programs related to water quality. NRCS can provide technical assistance to growers and has identified practices that are protective of the environment and are feasible in an agricultural setting. The NRCS Environmental Quality Incentives Program (EQIP) provides cost share assistance for management practice installation. The NRCS has also provided assistance with research of management practice effectiveness. The third-party and its Members

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<sup>2</sup> Farm Bureau also questions the Regional Board’s authority to require mitigation measures within the Draft WDR for farm level activities. Implementation of management practices at the farm level, which is the heart of the WDR, is not subject to a discretionary approval by the Regional Board. (See Pub. Resources Code, § 21080, CEQA generally applies only to discretionary projects.) Mitigation measures that cannot be legally imposed need not be proposed or analyzed. (CEQA Guidelines, § 15126.4(a)(5).)

are encouraged to utilize the information and resources available through the NRCS to meet the requirements of this Order.

**General Order Page 13, Provision 49—Nitrogen Management and Control**

Farm Bureau appreciates the acknowledgement of the assessment of nitrogen management and control currently underway by the California Department of Food and Agriculture’s Task Force, as well as the soon to be convened State Water Resources Control Board’s Expert Panel. Given the assessments and recommendations to be made by both processes to determine appropriate nitrogen tracking and reporting systems and management practices, adjusting the nitrogen management plan deadlines to allow for the incorporation of future recommendations is both appropriate and appreciated.

**General Order Page 17, Provisions III. A and III. B—Receiving Water Limitations**

The use of “shall not cause *or contribute*” to an exceedance of applicable water quality objectives is overly expansive and creates an unreasonable standard that is undefined, ambiguous, and holds farmers and ranchers liable for even the smallest de minimus contribution. Accordingly, a qualifier should be added before “contribute” or the discharge limitations for both surface water and groundwater should be rewritten to state “wastes discharged from Member operations shall not cause an exceedance of applicable water quality objectives in surface water [or the underlying groundwater], unreasonably affect applicable beneficial uses, or cause a condition of pollution or nuisance.”

**General Order Page 19, Provision IV. B. 8—Nitrogen Management Plans**

Provision IV. B. 7 requires all members to prepare and implement an annual nitrogen management plan. Such plans should analyze “nitrogen” application rather than “nutrient” application. (Draft WDR, p. 19, ¶ 7; see also Attachment A, Information Sheet, p. 28 stating “the Order requires that Members implement practices that minimize excess **nitrogen** application relative to crop need” (emphasis added).) As seen in previous drafts for other WDRs, only members in high vulnerable areas where nitrate is a constituent of concern were required to prepare annual nitrogen budgets and management plans. Rather than requiring all members to prepare nitrogen budgets and plans, as Provision 8 is currently written, the Draft WDR should be revised to allow flexibility in the requirements for those areas that have no or a lower propensity to impact water quality.

**General Order Page 28, Provision VIII. C—Template Requirements for Farm Evaluations, Nitrogen Management Plans, and Sediment and Erosion Control Plans**

Farm Bureau appreciates the inclusion of language to allow third-parties the ability to modify the templates due to coalition-specific issues, including geographic area, the commodities grown, known water quality impairments, the propensity to impact water quality, and the size and scale of farming operations. Such tailoring will allow the Regional Board to obtain the most relevant information specific to the area being regulated while also allowing growers to minimize costs.

**General Order Page 24, Provision VII. B—Farm Evaluation**

The inclusion of a footnote in the Tulare Lake Basin and Eastern San Joaquin WDRs specifying that, “Any farm map or information on the location of wells on the farm does not need to be provided to the third-party group,” should also be added to the Sacramento River Watershed WDR.

**General Order Pages 24-26, Provisions VII. B, C, and D; Page 29, Templates—Template Requirements for Farm Evaluations, Nitrogen Management Plans, Nitrogen Management Plan Summary Reports, and Sediment and Erosion Control Plans**

The Draft WDR requires all coalitions and commodity groups to use the templates provided by the Regional Board (Draft WDR, pp. 24, 25, 26, 29) or submit a written request to the Executive Officer for approval to modify the templates (Draft WDR, p. 29). Farm Bureau appreciates the inclusion of language to allow third-parties the ability to modify the templates due to coalition-specific issues, including geographic area, the commodities grown, known water quality impairments, the propensity to impact water quality, and the size and scale of farming operations. Such tailoring will allow the Regional Board to obtain the most relevant information specific to the area being regulated while also allowing growers to minimize costs. In order to allow the third-parties the ability to seek modification of the templates, the phrase “or equivalent” needs to be added to Provision VII. B regarding farm evaluations and Provision VII. D regarding nitrogen management plans. The addition of the phrase “or equivalent” will provide clarity regarding the ability to modify the templates and will mirror the language in Provision VII C. regarding sediment and erosion control plans, which states: “All Members choosing to prepare and implement an individual Sediment and Erosion Control Plan must use the Sediment and Erosion Control Plan Template approved by the Executive Officer..., *or equivalent.*” (Draft WDR, p. 25, emphasis added.)

**General Order Pages 18-19, Provision IV. B 7; General Order Pages 25-26, Provision VII. B. 2; and General Order Page 31, Provision VIII. F—Watershed/Subwatershed Based Sediment and Erosion Control Plans**

Farm Bureau appreciates the inclusion of watershed/subwatershed based plans, allowing growers the option to work together on sediment and erosion control, in lieu of preparing individual Sediment and Erosion Control Plans. This option represents a cost effective approach to compliance, as control of sediment and erosion will occur while allowing growers to minimize costs.

**Attachment B, MRP, Pages 8-10, Provision III. C. 1(a)—Reduced Monitoring/Management Practices Verification Option**

Farm Bureau appreciates the inclusion of a reduced monitoring/management practices verification option as such an option will provide flexibility to growers who have a lower potential for surface water quality impacts. In order to fully utilize this option, Provision III. C. 1(a) should recognize those areas with current pilot programs,

such as those in Napa County and El Dorado County, and allow such programs to continue to be implemented as previously approved. Further, notwithstanding Farm Bureau's appreciation for this option, Farm Bureau recommends deleting the following sentence which limits the application of the reduced monitoring option: "The Central Valley Water Board does not anticipate that this option will apply to areas of the valley floor due to the intense agricultural land use." (Draft Attachment B, MRP, p. 8.) The ability to utilize this option should not be negated based solely on location or use, especially since portions of the Sacramento Valley have successfully completed management plans and have taken action to address water quality exceedances by funding and using management practices. To qualify to use the reduced monitoring and management practices verification option, any such program must first be approved by the Executive Officer. Thus, the Executive Officer can and should make the decision on the applicability of this option on a case-by-case basis rather than limiting its application by location and use.

**Attachment B, MRP, Pages 13-14, Provision III. C. 4—Toxicity Testing**

As currently drafted, the Draft MRP's language could be interpreted that both acute and chronic toxicity testing is required for all toxicity tests. (See Draft Attachment B, MRP, pp. 13-14, footnotes 6 and 7 stating that chronic and acute toxicity testing should be completed in accordance with U.S. EPA testing methods.) Since the inception of the Irrigated Lands Regulatory Program, surface water monitoring has occurred and has utilized acute aquatic toxicity testing, with no evidence of any shortcomings. If there is no U.S. EPA acute toxicity testing method of *Selenastrum capricornutum*, Farm Bureau recommends adding language to footnote 7 to specify that the use of chronic testing is appropriate *only* in this circumstance.

**Attachment B, MRP, Page 30-31, Reporting Components 17 and 18<sup>3</sup>**

Reporting Components 17 and 18 outline the process in which a third-party will collect data from members and report the data to the Regional Board at the township level. As currently drafted, Farm Bureau supports the reporting at the township level. Reporting at the township level allows coalition groups to properly compare crop data, evaluate management practice trends, and manage the data in an efficient and effective manner. The comparison of data at the field level, with or without the identification of a member's parcel, is not supported and would not result in an efficient use of resources or the ability to assess and evaluate trends.

Reporting Component 18, Summary of Management Practice Information, further requires a third-party to provide the individual data records to the Regional Board in addition to aggregating and summarizing information collected in the Farm Evaluations. (Draft Attachment B, MRP, p. 31.) No explanation is provided in the MRP or WDR to support the necessity of needing the individual data records. Rather, the summary of

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<sup>3</sup> See also Attachment A, Information Sheet, Pages 24-25—Spatial Resolution of Nitrogen Management Plan and Farm Evaluation Information.

Letter to Mark Cady  
Comments on the Sacramento River Watershed Administrative Draft WDRs/MRP  
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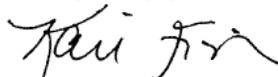
management practices provided by the third-party will be more meaningful than the individual data records and will include the appropriate analysis needed by the Regional Board. Thus, Farm Bureau questions the need for third-parties to submit individual data records and suggests this addition to the management practices information reporting component be removed.

**Basin Plan Amendment Workplan**

Farm Bureau respectfully requests the inclusion of a process for the third-party to pursue a basin plan amendment to address the appropriateness of a beneficial use as seen in the San Joaquin County and Delta WDR (Provision VIII. L, pp. 33-34).

Thank you for the opportunity to provide our comments and concerns. We look forward to further involvement and discussion with the Regional Board on the Sacramento River Watershed WDR and MRP for Discharges from Irrigated Lands.

Very truly yours,



Kari E. Fisher  
Associate Counsel

KEF:pkh

**Capay Valley Coalition  
P.O. Box 894  
Esparto, CA 95627**

by email & USPs  
October 10, 2013

Mark Cady  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670-6114

Re: Comments on draft Waste Discharge Requirements Sacramento River  
Watershed

Dear Mr. Cady:

The scale, scope, and economic impacts of these proposed rules have exceeded the original intent of the legislature and infringe on private property rights.

Yours truly,



Pamela S. Welch  
President

Capay Valley Coalition is a community organization committed to agricultural viability  
land use issues, and safety in western Yolo County.



**Colusa County  
Farm Bureau**

October 9, 2013

VIA ELECTRONIC MAIL TO: [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)

Dr. Karl E. Longley, Chair  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

*RE: Comments on Draft Waste Discharge Requirements – Sacramento River Watershed*

Dear Dr. Longley:

Thank you for allowing Public Comment on the Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed. On behalf of the Colusa County Farm Bureau members, we have an interest in providing comments on the Long-Term Irrigated Lands Regulatory Program (Long-Term ILRP). Its effect on agricultural producers in relation to increased water quality benefits it may bring is of great interest to us.

Our members, primarily made up of producers, practice good stewardship of the lands and have proactively endured regulation as it has come forward. Producers are taking advantage of the new and improved technologies to help operate more efficiently and they continue to improve through various educational opportunities to improve yields while enhancing the natural resources that grow our food. Educational opportunities are often provided by the local Ag Commissioner, Resource Conservation District, Natural Resources Conservation Service, UC Cooperative Extension, etc. However, there must be a time that we fight back on regulation and encourage an approach that fits the needs of the region. Per the current ILRP monitoring results, data has proven our commitment to keeping water quality high and this should be acknowledged in the Long-Term ILRP.

Colusa County has 132,599 acres enrolled under the Sacramento Valley Water Quality Coalition (Coalition) with 672 landowners actively engaged in the local Colusa Glenn Subwatershed Program (CGSP) to meet the current ILRP regulations. Since its inception, we are constantly being updated on the current program, management plans, and overall monitoring results. Please see below for our thoughts on the Draft WDR.



## **Colusa County Farm Bureau**

- 1. Economics.** The Draft WDR, the Long-Term ILRP, is estimated to double or more than double producer costs to comply. We believe each producer will be required to pay an estimated \$5.00/acre, and possibly up to \$10.00/acre within the next 10 years when groundwater monitoring begins. Currently, Colusa County producers are paying \$200,000 + per year to comply with the ILRP; if the Draft WDR stands as is it is estimated they will have to over \$1,000,000 plus per year to comply. This will affect the way producers spend their funds each year. For example, more money towards compliance versus on the ground management practices which is the proactive approach.
- 2. Sacramento Valley needs are different from Central Valley needs.** Monitoring results in the Colusa Glenn Subwatershed have been excellent, and if not, they have been or are being resolved through the current ILRP process with no issues. We recommend you consider a reduced Monitoring / Management approach to fit the needs of the Sacramento Valley water quality issues, not the needs of the San Joaquin Valley.
- 3. Small Farming Operations.** According to Regional Board staff estimates, 61% of growers and 4% of irrigated acres in the Sacramento Valley would be classified as Small Farming Operations. This represents an estimated 7,320 members and 71,080 irrigated acres. If approved as is this will create unneeded administrative duties, thus costs, by requiring the CGSP to track three separate classifications (low, high, small farming operations) of producers for reporting cycle purposes. It will not relieve any regulatory burden. This definition should be removed from the proposed regulations in the Draft WDR.
- 4. Template Requirements for Farm Evaluations, Nitrogen Management Plans, and Sediment and Erosion Control Plans.** These requirements as proposed will do little to foster further improvements in water quality. There should be an inclusion of language to allow third-parties the ability to modify the templates due to the specific needs/issues, including: geographic area, commodities grown, known water quality impairments, propensity to impact water quality, and scale of farming operations. Tailoring our Draft DWR will allow the Regional Board to obtain the most relevant information while also allowing producers to minimize costs.
- 5. Regional or Group Sediment and Erosion Control Plans.** Our County is made up of primarily Rice lands and orchard crops. Instead of having our landowners complete a Sediment and Erosion Control Plan, plans should be created by crop type,



**Colusa County  
Farm Bureau**

geography, etc. This option would allow for resources to be spent elsewhere when needed, such as outreach and education if there is a water quality exceedance. We encourage you to look at all options for these plans to still meet desired reporting requirements.

Thank you for this opportunity to provide our comments and concerns. If you have further questions, please contact our office at (530) 458-5130.

Sincerely,

Chris Torres  
President

cc Larry Domenighini, CGSP President  
Kandi Manhart, CGSP Subwatershed Coordinator  
Bruce Houdesheldt, SVWQC, NCWA Regulatory Affairs Specialist

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October 10, 2013

VIA ELECTRONIC MAIL TO [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)

Dr. Karl E. Longley, Chair  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

**RE: Comments on Draft Waste Discharge Requirements for discharges from irrigated lands within the Sacramento River Watershed**

Dear Dr. Longley and Board Members:

This comment letter is in response to your release of Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed. As the Colusa County Board of Supervisors, we have a vested interest in the Long-Term Irrigated Lands Regulatory Program (Long-Term ILRP) and its effect on our agricultural producers, natural resources and overall economy. Colusa County heritage and its economy are based on agriculture and helps drive daily business in the Sacramento Valley. For at least a century now, our producers have practiced good stewardship of the lands and have proactively endured regulation as it has come forward. With advanced technology to help operate efficiently and preserve the agricultural lands and resources, there must be a point in which we push back on regulations that aren't needed in our area due to proven record.

Currently, Colusa County has 132, 599 acres enrolled under the Sacramento Valley Water Quality Coalition (Coalition) with 672 landowners actively engaged in the local Colusa Glenn Subwatershed Program (CGSP) to meet the current ILRP regulations. Since its inception, the CGSP Board leadership has actively been engaged at all levels from our local producer meetings/workshops to meetings with Regional Board staff to developing partnerships with the U.C. Cooperative Extension. The USDA Natural Resources Conservation Service, County Agricultural Commissioner and other, in an effort to help shape an effective Long-Term ILRP. Without their local expertise and guidance, the ILRP or soon to be Long-Term ILRP, would be difficult to implement and manage.

Therefore, we acknowledge their work and appreciate this opportunity to provide written comments. We respectfully submit the following:

1. Distinguish the needs of the Sacramento Valley from the rest of the Central Valley. Results not reports should guide a different approach to implementing a WDR in the Sacramento Valley versus other areas within Central Valley. Monitoring results in the Colusa Glenn Subwatershed have been excellent. We request you re-visit our monitoring results and consider a reduced Monitoring / Management approach that fits the needs of the Sacramento Valley water quality issues, not the needs of other WDRs being adopted.
2. Consider existing management practices and programs in effect. Within the Colusa Glenn Subwatershed area, over \$7 million in a 5-year period was approved through the Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Programs (EQIP) to address two Management Plans within the area (*one in which has been requested to be deemed complete 3/6/2013*). The programs assisted implementing water quality and conservation practices, on top of the already implemented practices by our producers. We request that WDR acknowledge our producers are proactive, especially with water quality, and fit the Long-Term ILRP with the reality of the results from the past 9 years of monitoring.
3. Regional or Group Sediment and Erosion Control Plans. Our County is made up of primarily Rice lands and orchard crops. Instead of having 672 of our landowners complete a Sediment and Erosion Control Plan, could we have plans created by crop type, geography, etc. This option would allow for resources to be spent elsewhere when needed, such as outreach and education if there is a water quality exceedance. We request that WDR look at all options for these plans to still meet desired reporting requirements.
4. Economic cost for a producer to comply. The proposed Long-Term ILRP will double (or more than double) producer costs to comply per the CGSP. It is estimated each producer will be required to pay an estimated \$5.00 per acre, and possibly up to \$10.00 per acre within the next 10 years, especially when groundwater monitoring begins. This will affect our local businesses. We request you consider that when costs increase to meet regulatory programs, there be a direct benefit to the resource. The current proposal would increase the cost of regulatory compliance without achieving any benefit to the already high quality waters that we enjoy and protect in Colusa County.

Thank you for the opportunity to provide our comments and concerns. If you have further questions, please contact our office at (530) 458-0508, Denise J. Carter, Chair.

Best regards,



Denise J. Carter, Chair  
Colusa County Board  
Of Supervisors

Cc Congressman John Garamendi  
Congressman Doug LaMalfa  
Senator Jim Nielson  
Assembly Member Mariki Yamada  
Assemblyman Dan Logue  
Larry Domenighini, CGSP President  
Kandi Manhart, CGSP Subwatershed Coordinator  
Bruce Houdesheldt, SVWQC, NCWA Regulatory Affairs Specialist

# Colusa Glenn

## Subwatershed Program

P.O. Box 1205, Willows, California 95988 - Phone (530) 934-8036 - Email [cgsubwatershed@sbcglobal.net](mailto:cgsubwatershed@sbcglobal.net)

October 11, 2013

VIA ELECTRONIC MAIL TO: [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)

Dr. Karl E. Longley  
Board of Directors, Chair  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

***RE: Comments on Draft Waste Discharge Requirements within the Sacramento River Watershed***

Dear Dr. Longley and Board:

In response to your release of Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed, the Colusa Glenn Subwatershed Program (CGSP) respectfully submits this written comment letter for your consideration during adoption of the Long-Term Irrigated Lands Regulatory Program (ILRP) "General Order". We understand this is a complex program, including many geographic areas, and appreciate the opportunity to provide you comments for this Draft WDR. Specifically, these are comments from the CGSP which are confidently based on 9 years experience of implementing this regulatory program at the local level.

As a member of the Sacramento Valley Water Quality Coalition (Coalition), the CGSP makes up almost 24 percent of its acres with over 280,000 acres enrolled and over 1,600 members. We work to ensure ILRP compliance is met with a current budget of \$475,000 and a very high rate of landowner participation.

The current ILRP has proven to be an outstandingly effective approach in implementing the surface water quality program. How has that been possible?

1. In 1996, the Glenn County Department of Agriculture initiated a Surface Water Stewardship Program in an effort to raise the level of awareness to our growers concerning run-off and leaching of organophosphates. For a community whose livelihood depends on irrigated agriculture for its economic basis, water quality in all shapes and forms has always been an issue of importance. The outreach and education component of this program served as the model for the successful landowner participation in the early years of the ILRP.

2. In 2001, Glenn County was the first county in the State to develop Basin Management Objectives for groundwater management. This cooperative effort brought all water purveyors within the County to the table to gain a better understanding of water resources and the relationship of supply to quality.
3. In 2005, the Glenn County Department of Agriculture was the lead agency for the “Four County Drinking Water Strategy”, which was the initial document that promoted integrated water resource management for counties of the North State.
4. In 2005, the Glenn County Department of Agriculture entered into a Memorandum of Understanding (MOU) with the Central Valley Regional Water Quality Control Board (Regional Board) during the beginning of the ILRP. The Pilot Program was a collaborative effort between the Regional Board, State Water Resources Control Board, Department of Pesticide Regulation, and Agricultural Commissioners of Glenn and Butte Counties. The objective of the MOU was to enhance the interaction between the Regional Board and Ag Commissioners as well as with the producers on a local level. It helped create a team process of using outreach and education (i.e. surveys, maps, etc.) to address water quality issues related to the ILRP. Walker Creek was one of the pilot watersheds. The development and successful implementation of the Walker Creek Management Plan for Chlorpyrifos and *Ceriodaphnia* Toxicity is directly tied to this program and the model of outreach and education developed during the above referenced Glenn County Surface Water Stewardship Program.
5. The CGSP has actively pursued cost-share funding opportunities in Colusa and Glenn Counties through the USDA’s Natural Resources Conservation Service (NRCS) to provide a streamlined approach for producers to implement additional management practices. In particular, there was direct funding received through the NRCS Bay-Delta Initiative (BDI) for the Walker Creek Management Plan for Chlorpyrifos and *Ceriodaphnia* Toxicity. Multiple management practices have been implemented or will be implemented to protect our surface water and ground water. This Management Plan implementation is a true success story of the current ILRP process, which should be recognized. The pesticide problem was identified, a Management Plan was developed and approved by Regional Board staff, and outreach and education conducted via letters, surveys and workshops. As a result there have been no detections of Chlorpyrifos in four years. In fact we are still waiting for action on our request to deem the Management Plan complete by Regional Board staff.
6. We are successful because we are building partnerships that recognize the need for a flexible approach to problem solving. We have developed productive partnerships with the local Ag Commissioners, UC Cooperative Extension, county Farm Bureaus, elected officials, Resource Conservation Districts, USDA’s NRCS, commodity groups, irrigation, water, and drainage districts, waterfowl organizations and local watershed groups. However, our most important partnership is with the landowners and producers. We have been able to implement the ILRP in a manner that is effective, efficient and economical because we, the Coalition members both individually and collectively, are dedicated to resolving our water quality issues. Our partnerships, based on a flexible approach to problem solving through our successful model of outreach and education, are the key to our success.

Why alter our model for success by making it more stringent and excessive for the Sacramento Valley than needed? With 9 years of monitoring results, a baseline has been created and our program has proven the outstanding stewardship of agricultural producers in the Sacramento Valley. We see the Draft WDR as being an extreme level of regulation unnecessary for our area because of its requirements

for a blanket approach in requiring Farm Evaluations, Nitrogen Management Plans, and Sediment and Erosion Control Plans. Again, the current ILRP process proved to be effective and sufficient to protect water's of the State.

Now, for the Long-Term ILRP. We have had discussions and assurances in the past with Regional Board staff indicating the Long-Term ILRP would be tailored to acknowledge the Coalition's success in preserving water quality. We know we must include groundwater. However, the past few months we are continually taken back as each General Order is adopted. They tend to be rubber stamped with approval and each very similar to the East San Joaquin's General Order. It is commonly known they have significant water quality issues compared to other areas within the Central Valley. As our current Draft WDR stands, you are addressing a non-existent problem and creating a regulatory program that is not needed in the Sacramento Valley. The proven stewardship and success of our members in responding to the current ILRP is not being recognized. We ask that you recognize this and in an effort to steer you away from this "one size fits all" approach, we offer the following for your review and consideration:

- **Separate needs of the Sacramento Valley from the rest of the Central Valley.** Results not reports should guide a different approach to implementing a WDR in the Sacramento Valley versus other areas within Central Valley. Monitoring results in the Colusa Glenn Subwatershed have been excellent, and if not, they have been resolved through the current ILRP process (i.e. Walker Creek). We ask you consider a reduced Monitoring / Management approach that fit the needs of the Sacramento Valley water quality issues, not the needs of other WDRs being adopted. Blanket requirements for Farm Evaluations, Nitrogen Management Plans, and Sediment and Erosion Control Plans are, quite plainly, an impediment to the goal of good stewardship of water quality in Colusa and Glenn Counties and the Sacramento Valley as a whole.
- **Economy of Scale versus Increased Water Quality.** The proposed Long-Term ILRP will easily double (or more than double) landowners/operators costs to comply. It is estimated each enrolled landowner/operator will be required to pay an estimated \$5.00 per acre, and possibly up to \$10.00 per acre within the next 10 years, especially when groundwater monitoring begins. Currently, our members are paying \$475,000 plus per year to comply with the ILRP; if the Draft WDR stands as is it is estimated they will have to pay \$1,500,000 plus per year to comply. What water quality issues in the CGSP justify this million dollar a year price tag? Look at the record of water quality. This will affect our local producers, local businesses, and overall economy and to what water quality benefits will it bring to water's of the State?
- **Template Requirements for Farm Evaluations, Nitrogen Management Plans, and Sediment and Erosion Control Plans.** The blanket requirement of these reports as proposed will do little to foster further improvements in water quality. There should be an inclusion of language to allow third-parties the ability to modify the templates, when needed, to the specific needs/issues of the Sacramento Valley, including: geographic area, commodities grown, known water quality impairments, propensity to impact water quality and scale of farming operations. Tailoring our Draft WDR will allow the Regional Board to obtain relevant information while also allowing producers to minimize costs and effectively target resources to solve problems. Seems reasonable.

- **Regional or Group Sediment and Erosion Control Plans.** Colusa and Glenn Counties are primarily made up of rice lands and orchard crops. Instead of having our 1,600 members complete a Sediment and Erosion Control Plan individually, it seems to make sense to recognize the types of agriculture in Colusa and Glenn Counties and develop plans by crop type, geography, etc. to create a more useful plan. This option would allow for resources to be spent proactively and where needed, if there is water quality impairment. We encourage you to look at all options for these plans yet still meet your desired outcomes of data needed.
- **Small Farming Operations Definition.** According to Regional Board staff estimates, 61% of landowners/operators and 4% of irrigated acres in the Sacramento Valley would be classified as Small Farming Operations. In CGSP approximately 50,000 acres will fall into this category. The mere fact of delaying small farm compliance with the most burdensome parts of our WDR General Order should be recognized this will cause major administration issues. This definition is not desired in our Coalition and was an accommodation made in the Eastern San Joaquin WDR General Order. It will create unneeded administrative duties, thus costs, by requiring us to track three separate classifications (low, high, small farming operations) of landowners/operators for reporting cycle purposes. This definition should be removed from our proposed regulations due to the low percentage of acres that will be classified as small farming operations.

Again, we thank you for the opportunity to provide our written comments. Now, as we move into the Long-Term ILRP and add a groundwater component, we ask you (the Regional Board) to recognize the uniqueness of the Sacramento Valley and the good quality of surface and groundwater that it enjoys, compared to other areas in the Central Valley. We hope that you will appreciate the results oriented program we have built and the partnerships that we have nurtured over the last decade. It is the template of success for the Sacramento Valley. We urge you to remember you stated that during development of the Long-Term ILRP and in adoption of each General Order, that each General Order will be viewed separately from each other. And, that each one should stand alone. The Sacramento Valley is different from the San Joaquin Valley.

If you have comments or questions, please contact our office at (530) 934-8036 or [cgsubwatershed@sbcglobal.net](mailto:cgsubwatershed@sbcglobal.net).

Sincerely,



Larry Domenighini  
President, Colusa Glenn Subwatershed Program  
Glenn County Farmer

cc     Congressman John Garamendi  
        Congressman Doug LaMalfa  
        Senator Jim Nielson  
        Assemblyman Dan Logue  
        Bruce Houdesheldt, SVWQC, NCWA Regulatory Affairs Specialist  
        Kandi Manhart, Subwatershed Coordinator, CGSP / Glenn County RCD



# EL DORADO AGRICULTURAL WATER QUALITY MANAGEMENT CORP

PROTECTING OUR PRECIOUS RESOURCE

P. O. Box 286  
Placerville, CA 95667  
(530) 622-7773  
Fax (530) 622-7839

October 10, 2013

Sent via email: [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)

Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670

Attention: Mark Cady

Re: Administrative Draft – Sacramento Valley Waste Discharge Requirements (WDR)

Dear Mr. Cady,

We appreciate this opportunity to comment on the reference document which will be applicable to our members of the El Dorado County Subwatershed Coalition. Our organization is a member of the Sacramento Valley Water Quality Coalition which also represents our interests.

The El Dorado County Agricultural Water Quality Management Corporation represents 317 individual growers who manage the small farms and ranches that comprise our irrigated agricultural operations. The total area of the portions of the sub-watersheds that we represent is approximately 1.1 million acres with irrigated agricultural operations representing roughly 3,312 acres or 0.3% of this area.

While our operations are generally concentrated in seven distinct geographic agricultural districts, there are no areas where agriculture is truly the predominant land use. There are no identified DWR Bulletin 118 groundwater basins or sub-basins and there are no SWB Hydrogeologically Vulnerable areas or DPR Groundwater Protection Areas within our county.

Although we feel that we represent no threat to groundwater quality based on our fractured rock environment, we have reviewed the templates and provide the following general comments:

- 1. Reduced Surface Water Monitoring:** We would like to thank the Regional Board for recognizing the need for tailoring surface water monitoring in subwatersheds "...deemed to have a lower potential for surface water quality impacts from irrigated agricultural discharges." (Attachment B, Para III.C.a.) The El Dorado County Agricultural Water Quality Management Corporation has successfully implemented a Pilot Management Practices Program with reduced monitoring requirements for the past three years. Members who operate 97% of the approximate 3,100 acres of irrigated agriculture have completed management practice surveys. The survey included management practices that have been identified as appropriate for crops grown in our subwatershed and that satisfy the four Management Objectives for protecting surface water quality: Pesticide Management; Irrigation Water Management; Erosion and Sediment Control Management; and Nutrient Management. Each year we have independently verified through farm visits members who operate at least 10% of our enrolled acres. We are

currently preparing for our fourth year of verification. We look forward to continuing this very successful program under the new WDR.

- 2. Groundwater Monitoring:** We are very concerned about the proposed requirements for the groundwater portion of the draft WDR. All El Dorado County irrigated agricultural operations are conducted at elevations above 1,000 feet. There are no groundwater basins or sub-basins in El Dorado County identified in DWR Bulletin 118. Our groundwater is found in unmapped hard rock fractures that are generally believed to be recharged from snow melt at higher elevations in the Sierras. As a result, domestic and agriculture wells vary in depth from 60 to 1,200 feet. Therefore, any attempt to monitor groundwater quality would not provide scientifically acceptable results because the source of the water and any contaminants couldn't be identified with any degree of certainty.
- 3. Nitrogen Management:** There has been, and continues to be much discussion regarding nitrogen management practices and proving the effectiveness of currently used practices. The implication seems to be that if the practices currently in place (and there aren't that many available) are not effective then someone will develop new and improved practices. We believe we have identified the Nutrient Management Practices in our current Pilot Management Practices Program that, when implemented, protect both surface and groundwater in our subwatershed. We believe the emphasis should be on educating operators regarding what practices are available and appropriate for their operations and then documenting practice implementation.
- 4. WDR Costs:** The WDR states that "the burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." The first 9 years of this program has cost El Dorado County growers \$428,516 for water quality monitoring, coalition and subwatershed administration of the program and state fees. The direct cost to operators for implementing new management practices is unknown. The yearly cost has been as high as \$18.03 per acre when we had to prove that agriculture was not the cause of toxicity exceedances. The 2012 cost for special monitoring for legacy pesticides, program administration and state fees was reduced to \$8.03 per acre as a result of the Pilot Management Practices Program. We are concerned that if the cost of this program doubles on top of the other fees that have been levied on us, our small family growers will just give up and stop farming.

We appreciate the efforts of staff in considering our previous comments and recommendations for a management practices-based approach to preserving our excellent surface water quality while providing ground water quality protections. Our Pilot Program has proven to be effective and is specifically tailored to our cropping, soils and agricultural setting.

We would welcome the opportunity to work with Regional Board staff to develop criteria to allow us to continue such a program under the next order which recognizes the excellent stewardship of our family farms.

Sincerely,



Carolyn Mansfield, President

cc: Bruce Houdesheldt, Sacramento Valley Regional Water Quality Coalition  
Pamela Creedon, Central Valley Regional Water Quality Control Board  
Dr. Karl Longley, Chairman, Central Valley Regional Water Quality Control Board  
Joe Karkoski, Central Valley Regional Water Quality Control Board



EL DORADO COUNTY  
**FARM BUREAU**

2460 Headington Road  
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October 10, 2013

Sent via email: [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)

Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670

Attention: Mark Cady

Re: Comments on the Administrative Draft of the Sacramento Valley Waste Discharge Requirements (WDR)

Dear Mr. Cady,

We appreciate this opportunity to comment on the reference document. The El Dorado County Farm Bureau represents over 300 member families who will be affected by the proposed WDR on irrigated agricultural lands. The majority of our irrigated agricultural operations are contained on parcels where the average size operation is approximately 8 to 10 acres. The irrigated acres currently enrolled in the program totals approximately 3,100 acres. Our farms and ranches are nestled in among recreational uses, undeveloped open space, rural subdivisions, and public roads on 1.1 million acres of land located on the west slope of the sierras.

- 1. General Comments.** The El Dorado subwatershed coalition developed and has been successfully performing a management practices-based Pilot Program for the past three years. The practices identified and verified provide meaningful data and outreach opportunities to work with individual growers to manage for and maintain excellent water quality. In comparison, the proposed templates in this WDR are not necessarily relevant to local cropping and management practices methods already widely in use.
- 2. Surface Water Monitoring.** We appreciate the Board including an opportunity for reduced surface water monitoring based on having a lower potential for surface water quality impacts. Our Pilot Management Practices Program includes practices that have been identified to be specifically applicable to crops grown in our region. We have verified annually that growers are, in fact, utilizing the practices that they identified in the surveys they returned. We request that the program that was developed and approved under the current waiver be continued and implemented as previously approved.
- 3. Groundwater Monitoring.** The topography and hydrology of the western slope require that deep wells be drilled through fractured rock to water interstices whose water origins are unknown. Within this region of the county, which is included in the proposed regulation, there are no ground water basins or sub-basins identified by DWR Bulletin

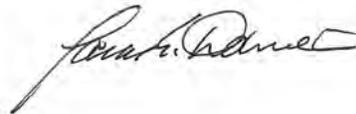
*Protect, promote, and enhance the economic opportunities and long-term viability  
for El Dorado County farmers, ranchers, and foresters.*

118 and there are no Hydrogeologically Vulnerable areas or DPR Groundwater Protection Areas within the county. Since there is no vulnerability for leaching identified in this region, El Dorado County is rendered a low priority area or, stated another way, it presents no threat to ground water quality from agricultural sources. The Groundwater Assessment Report will reflect that based on these and other government testing programs, El Dorado is considered a low vulnerability area.

4. **Sediment & Erosion Control Plans.** El Dorado County has adopted local ordinances that affect agricultural grading. Furthermore, county conservation policies include Best Management Practices adopted for development of agricultural projects. In addition, our Pilot Program survey addresses agriculture-specific practices designed to address water quality impacts to both surface and groundwater. We request the Board allow the current, approved program to satisfy the requirements of the draft WDR for sedimentation and erosion control planning.
5. **Administrative & Cost Burdens.** While we agree that implementation of management practices can be utilized to maintain water quality for both surface and ground water, the proposed templates represent a "one size fits all" approach that is not well suited to El Dorado. The administrative burden of adding new membership data collection and reporting requirements also adds expenses that must be borne by the growers. The preparation, certification, record keeping and reporting programs impose a disproportionate burden on the small family farms and ranches that populate El Dorado County. The state has not met its burden of assuring that "the costs bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports."

A lowest threat option needs to be developed that recognizes those areas, like El Dorado County, that present no risk to groundwater contamination due to the lack of defined basins. We welcome the opportunity to work with the Regional Board and the El Dorado Subwatershed to develop a WDR that allows a least regulated, tiered approach that would provide groundwater protections without sacrificing the economic viability of El Dorado County's small farms and ranches.

Sincerely,



James E. Davies  
President

cc: Bruce Houdesheldt, Sacramento Valley Regional Water Quality Coalition  
Pamela Creedon, Central Valley Regional Water Quality Control Board  
Carolyn Mansfield, El Dorado County Agricultural Water Quality Management Corporation  
Kari Fisher, California Farm Bureau Federation  
Dr. Karl Longley, Chairman, Central Valley Regional Water Quality Control Board



# GLENN COUNTY BOARD OF SUPERVISORS

Willows Memorial Hall, 2<sup>nd</sup> Floor  
525 West Sycamore Street, Suite B1  
Willows, CA 95988

*John K. Viegas, District 1*  
*Dwight Foltz, District 2*  
*Steve Soeth, District 3*  
*Michael Murray, District 4*  
*Leigh W. McDaniel, District 5*

October 8, 2013

VIA ELECTRONIC MAIL TO: [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)

Dr. Karl E. Longley, Chairman  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

***RE: Comments on Draft Waste Discharge Requirements within the Sacramento River Watershed***

Dear Dr. Longley:

This comment letter is in response to your release of Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed. As the Glenn County Board of Supervisors, we have an interest in the Long-Term Irrigated Lands Regulatory Program (Long-Term ILRP) and its effect on our agricultural producers and economy. Since the mid-1990s Glenn County has been proactive in addressing surface and groundwater resources and we are constantly pursuing opportunities to help preserve our state's water quality.

It is our belief the proposed regulations are excessive and unnecessary for the North State. We have had discussions and assurances in the past with Central Valley Regional Water Quality Control Board (Regional Board) staff indicating the Long-Term ILRP would be tailored to acknowledge the North State's success in preserving water discharge quality. Yet now, we are shocked to see you plan to lump the North State together with the East San Joaquin, which does have significant water discharge quality issues. You are addressing a non-existent problem in the North State and are punishing us for our stewardship and success. This is extremely unfair and we will fight to prevent this action from going forward. This "one size fits all" narrow minded approach will certainly initiate legal action from the North State, again, wasting time and money in the courtroom rather than settling our differences using a common sense approach. We offer the following successes and comments:

In 1996, the Glenn County Department of Agriculture initiated a Surface Water Stewardship Program in an effort to raise the level of awareness to our growers concerning run-off and leaching of organophosphates. The outreach and education component of this program served as the foundation for the successful grower participation in the early years of the ILRP. For a community whose livelihood depends on irrigated agriculture for its economic basis, water quality in all shapes and forms has always been an issue of importance. In 2001, Glenn County was the first county in the State to develop Basin Management Objectives for groundwater management. This cooperative effort brought all water purveyors within the County to the table to gain a better understanding of water resources and the relationship of supply to quality. In 2005, the Glenn County Department of Agriculture was the lead agency for the "Four County Drinking Water Strategy", which was the initial document that promoted integrated water resource management for the counties of the North State.

In addition, Glenn County Department of Agriculture entered into a Memorandum of Understanding (MOU) with the Regional Board during the beginning of the ILRP. The Pilot Program was a collaborative effort between the Regional Board, State Water Resources Control Board, Department of Pesticide Regulation, and Agricultural Commissioners of Glenn and Butte Counties. The objective of the MOU was to enhance the interaction between the Regional Board and Commissioners as well as with the producers on a local level. It helped create a team process of using outreach and education (i.e. surveys, maps, etc.) to address water quality issues related to the ILRP. Walker Creek was one of the pilot watersheds. As part of the Pilot Program it included a requirement to interact with Regional Board staff and provide quarterly reports to the Regional Board per assigned tasks. In the final report dated 23 June 2011 Pamela Creedon, Regional Board Executive Officer wrote, "I believe the Pilot Program has been a successful collaboration and have directed staff to work with the signatories on renewal of the MOU."

And lastly, the local Colusa Glenn Subwatershed Program (CGSP) has actively pursued cost-share funding opportunities in Glenn County through the Natural Resources Conservation Service (NRCS) to provide a streamlined approach for producers to implement the Walker Creek Management Plan for Chlorpyrifos and *Ceriodaphnia* toxicity. Multiple management practices have been implemented or will be implemented to protect our surface and groundwater. This Management Plan implementation is a true success story of the current ILRP process, which should be recognized. The pesticide problem was identified, a Management Plan was developed and approved by Regional Board staff, and outreach and education conducted via letters, surveys and workshops. To date there have been no detections of Chlorpyrifos in four years. In fact, we have been informed there has been a request submitted to deem the Management Plan complete but with no final determination made from Regional Board staff.

Currently, Glenn County has 148,017 acres enrolled under the Sacramento Valley Water Quality Coalition (Coalition) with 918 landowners actively engaged in the local CGSP to meet the current ILRP regulations. Since its inception, Glenn County has actively been engaged at all levels from our local Pilot Program MOU with our Ag Commissioner to producer meetings/workshops in an effort to help implement an effective ILRP. The ILRP has been effective per the Walker Creek Management Plan success story.

Moving forward, we understand there must be an inclusion of groundwater monitoring. However, we have outlined our concerns on the proposed Long-Term ILRP for your consideration.

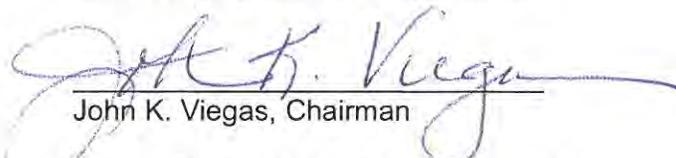
- Economy of scale. The proposed Long-Term ILRP will double (or more than double) producer costs to comply per the CGSP. It is estimated each producer will be required to pay an estimated \$5.00 per acre, and possibly up to \$10.00 per acre within the next 10 years, especially when groundwater monitoring begins. Currently, Glenn County producers are paying \$200,000 plus per year to comply with the ILRP; if the Draft WDR stands as is it is estimated they will have to pay \$1,400,000 plus per year to comply. This will affect our local businesses yet to what water quality benefit will these additional costs bring to our County? The definition and delays in implementation for small farming operations included in this WDR is in effect an admission by the Regional Board of the heavy financial burden of this program.

- Separate needs of the Sacramento Valley from the rest of the Central Valley. Results not reports should guide a different approach to implementing a WDR in the Sacramento Valley versus other areas within Central Valley. Monitoring results in the Colusa Glenn Subwatershed have been excellent, and if not, they have been resolved through the current ILRP process (i.e. Walker Creek). We ask you consider a reduced Monitoring / Management approach that fit the needs of the Sacramento Valley water quality issues, not the needs of other WDRs being adopted.
- Regional or Group Sediment and Erosion Control Plans. Our County is made up of primarily rice lands and orchard crops. Instead of having 918 of our landowners complete a Sediment and Erosion Control Plan, plans should be created by crop type, geography, etc. This option would allow for resources to be spent elsewhere when needed, such as outreach and education if there is a water quality exceedance. We encourage you to look at all options for these plans to still meet desired reporting requirements.
- Small Farming Operations Definition. According to Regional Board staff estimates, 61% of growers and 4% of irrigated acres in the Sacramento Valley would be classified as Small Farming Operations. This represents an estimated 7,320 members and 71,080 irrigated acres. In Glenn County, our numbers are estimated at approximately 25,000 acres. This definition was an accommodation made in the Eastern San Joaquin WDR Order, and it is not of interest in Glenn County. It will create unneeded administrative duties, thus costs, by requiring the CGSP to track three separate classifications (low, high, small farming operations) of growers for reporting cycle purposes with no benefit to water quality. This definition should be removed from the proposed regulations in the Draft WDR.

Thank you for the opportunity to provide our comments and concerns. If you have further questions, please contact our office at (530) 934-6400.

Sincerely,

Glenn County Board of Supervisors



John K. Viegas, Chairman

cc    Congressman John Garamendi  
      Congressman Doug LaMalfa  
      Senator Jim Nielson  
      Assemblyman Dan Logue  
      Larry Domenighini, CGSP President  
      Kandi Manhart, CGSP Subwatershed Coordinator  
      Bruce Houdesheldt, SVWQC, NCWA Regulatory Affairs Specialist

Greg & Karen Lawley  
7255 Thousand Oaks Drive  
Lincoln, CA 95648

Dr. Karl E. Longley, Chair  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

October 10, 2013

**RE: Comments on Draft Waste Discharge Requirements**

Dear Dr. Longley and Board Members:

This comment letter is in response to your release of Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed. We agree with the Placer-Nevada-South Sutter-North Sacramento Subwatershed Group (PNSSNS) Board of Directors (volunteer farmers/ranchers), in that we have witnessed the effect of the Irrigated Lands Regulatory Program (ILRP) on our agricultural producers, natural resources and overall economy.

Regardless of the Irrigated Lands Regulatory Program (ILRP), as a current member, I have always worked closely with the local agricultural commissioners, resource conservation districts and UC Davis Coop extension farm advisors to maintain cost effectiveness in producing crops, managing natural resources and keeping the environment clean. Our pro-activeness in implementing best management practices to preserve our waters is evident in the past ten years of water monitoring results.

Currently, PNSSNS has 27,000 acres enrolled under the Sacramento Valley Water Quality Coalition (SVWQC) with 500 landowners representing diversity in size, crops and geology. From walnuts, orchards, row crops, grains and cattle on the valley floor to citrus, grapes, berries, and livestock in the foothills and the upper watershed. We respectfully submit the following:

**1. Control Cost of Compliance to Benefit Water Quality**

Despite our record of stewardship and lack of surface water quality exceedances, the ranchers and growers of PNSSNS will see ever higher costs of an expanded regulatory program. This program focuses on protecting groundwater quality from discharges unlikely to be seen in our region of the Central Valley. It concerns us when we hear that costs in Eastern San Joaquin have doubled from \$2 to \$4 to comply with the new program requirements. State Board Oversight fees alone have increased 625% per acre (12¢ to 75¢) since the inception of this program. Moreover, individual farmers also pay for fire protection, water masters, air quality, etc. Please do not view program cost increases in isolation or the near term. The steadily rising cost of this program insures a steady loss of membership. Approximately 70% of PNSSNS consist of small farms 20 acres or less. They simply can't afford the cost of over-zealous water monitoring.

Dr. Karl E. Longley, Chair  
October 10, 2013  
Page 2

Currently the MRP requires just one year, followed by two years of Core Monitoring (field parameters) plus management plan parameters. The proposed MRP will, if adopted, require two consecutive years of Assessment Monitoring and a third year if a water quality objective or trigger limit is exceeded only once at a Representative Monitoring site during the two-year assessment period. One exceedance should not be a Management Plan trigger, especially when there is no distinction between low and high vulnerability areas. Please prioritize parameters delineating those with the highest potential to create vulnerability to water (pesticides, toxicity, salinity, nutrients, etc.) and those with dissolved oxygen, pH and E. coli viewed as low vulnerability areas. And please drop this requirement for a third assessment year.

## **2. Low Vulnerability Option**

The definition of low vulnerability area on Page 4 of Attachment E (Definitions) simply states, "are all areas not designated as high vulnerability for either surface or groundwater or as determined by the Executive Officer." Yet, the last sentence of the first paragraph in Section III. C. 1. a, states, "The Central Valley Water Board does not anticipate that this option will apply to areas of the valley floor due to the intense agricultural land use." Please strike this. PNSSNS monitoring results have been excellent. Please re-visit our monitoring results and consider a reduced Monitoring/Management approach that fit the needs of the Sacramento Valley water quality issues, not the needs of other WDRs being adopted.

## **3. Low Vulnerability option for 2013-14 Assessment Monitoring**

Please consider permitting those groups approved for low vulnerability option to use the results from the past nine (9) years of water monitoring to replace the 1st assessment year (2013-14) with the next assessment year monitoring to occur in 5 years (2017-18). To obtain the level of individual reports required by this new program, there will be increased need for one-on-one outreach and education. As a result, staff costs will increase to produce these new reporting and tracking requirements. Subwatersheds that have a proven record of low vulnerability monitoring results should not be further financially penalized by requirements for more testing.

Thank you for your consideration.

Respectfully,

Greg and Karen Lawley

**From:** [John Powers](#)  
**To:** [Cady, Mark@Waterboards](mailto:Cady_Mark@Waterboards)  
**Cc:** [pnsnssubwatershed@gmail.com](mailto:pnsnssubwatershed@gmail.com)  
**Subject:** Public Comments on Draft Waste Discharge Requirements  
**Date:** Thursday, October 10, 2013 4:50:59 PM

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This comment email is in response to your release of Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed. As the Placer-Nevada-South Sutter-North Sacramento Sub-watershed Group (PNSSNS) Board of Directors (volunteer farmers/ranchers), we have witnessed the effect of the Irrigated Lands Regulatory Program (ILRP) on our agricultural producers, natural resources and overall economy. Regardless of the Irrigated Lands Regulatory Program (ILRP), current members, former members and non-members have always worked closely with the local agricultural commissioners, resource conservation districts and UC Davis Coop extension farm advisors to maintain cost effectiveness in producing crops, managing natural resources and keeping the environment clean.

Their pro-activeness in implementing best management practices to preserve our waters are evident in the past ten years of water monitoring results.

Currently, PNSSNS has 27,000 acres enrolled under the Sacramento Valley Water Quality Coalition (SVWQC) with 500 landowners representing diversity in size, crops and geology. From walnuts, orchards, row crops, grains and cattle on the valley floor to citrus, grapes, berries, and livestock in the foothills and the upperwatershed. We respectfully submit the following:

### **1. Control Cost of Compliance to Benefit Water Quality**

Despite our record of stewardship and lack of surface water quality exceedances the ranchers and growers of PNSSNS will see ever higher costs of an expanded regulatory program. This program focuses on protecting groundwater quality from discharges unlikely to be seen in our region of the Central Valley. It concerns us when we hear that costs in Eastern San Joaquin have doubled from \$2 to \$4 to comply with the new program requirements. State Board Oversight fees alone have increased 625% per acre (12¢ to 75¢) since the inception of this program. Moreover, individual farmers also pay for fire protection, water masters, air quality, etc. Please do not view program cost increases in isolation or the near term. The steadily rising cost of this program insures a steady loss of membership. Approximately 70% of PNSSNS consist of small farms 20 acres or less. They simply can't afford the cost of over-zealous water monitoring.

Currently the MRP requires just one year, followed by two years of Core Monitoring (field parameters) plus management plan parameters. The proposed MRP will, if adopted, require two consecutive years of Assessment Monitoring and a third year if a water quality objective or trigger limit is exceeded only once at a Representative Monitoring site during the two-year assessment period. One exceedance does not a

Management Plan trigger, especially when there is no distinction between low and high vulnerability areas. Please prioritize parameters delineating those with the highest potential to create vulnerability to water (pesticides, toxicity, salinity, nutrients) and those with dissolved oxygen, pH and E. coli viewed as low vulnerability areas. And please drop this requirement for a third assessment year.

## **2. Low Vulnerability Option**

The definition of low vulnerability area on Page 4 of Attachment E (Definitions) simply states, "are all areas not designated as high vulnerability for either surface or groundwater or as determined by the Executive Officer." Yet, the last sentence of the first paragraph in Section III. C. 1. a, states, "The Central Valley Water Board does not anticipate that this option will apply to areas of the valley floor due to the intense agricultural land use." Please strike this. PNSSNS monitoring results have been excellent. Please re-visit our monitoring results and consider a reduced Monitoring / Management approach that fit the needs of the Sacramento Valley water quality issues, not the needs of other WDRs being adopted.

## **3. Low Vulnerability option for 2013-14 Assessment Monitoring**

Please consider permitting those groups approved for low vulnerability option to use the results from the past nine (9) years of water monitoring to replace the 1st assessment year (2013-14) with the next assessment year monitoring to occur in 5 years (2017-18). To obtain the level of individual reports required by this new program, there will be increased need for one-on-one outreach and education. As a result, staff costs will increase to produce these new reporting and tracking requirements. Subwatersheds that have proven record of low vulnerability monitoring results should not be further financially penalized by requirements for more testing.

Thank you for your consideration. Respectfully,

***John and Janey Powers***  
***Hopeful Hill Ranch***  
***13303 Hopeful Hill Rd.***  
***Nevada City, CA 95959***  
[www.hopefulhill.com](http://www.hopefulhill.com)



Marc Hooper - President  
David Rosenthal - 1<sup>st</sup> Vice President  
Glenn Benjamin - 2<sup>nd</sup> Vice President  
Claudia Street - Executive Director

**Sent via email to: Mr. Mark Cady, [mcady@waterboards.ca.gov](mailto:mcady@waterboards.ca.gov)**

October 10, 2013

Dr. Karl Longley, Chairman  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Dr #200  
Rancho Cordova, CA 95670-6114

On behalf of the Lake County Irrigated Agricultural Lands Watershed Program, which administers the irrigated lands regulatory program at the local level, we request your consideration of our comments on the Sacramento Valley Waste Discharge Requirements Administrative Draft.

To begin the conversation, we want to provide some basic Lake County information. Total land mass in Lake County's diverse geographical landscape, including public lands, water bodies, municipalities and private lands is 849,766 acres. Our dominant water body, Clear Lake, has a foot print of 44,000 acres. The primary farming region in the county can be found in the Upper Creek Watershed, which encompasses 271,360 acres. Irrigated agriculture in Lake County accounts for less than 13,000 acres. Using these figures, it can be calculated that irrigated agriculture represents approximately 4.80% of the acreage in the Upper Creek Watershed. In addition, 75% of our growers farm 60 acres or less.

According to the 2012 Crop Report prepared by the Lake County Department of Agriculture, which includes both irrigated **and** dry land agriculture, the top three commodities and their respective percentage of total acreage is as follows:

1. Winegrapes - 60%
2. Walnuts - 24%
3. Pears - 6.4%

Locally our Lake County Winegrape Commission (LCWC) Education Committee focuses upon their Sustainable Winegrowing Program (SWP). LCWC has implemented a Certified California Sustainable Winegrowing (CCSW-Certified) program which establishes voluntary high standards of sustainable practices to be followed and maintained by the entire winegrape community. The pear and walnut industries follow equally stringent best management practices to manage pesticide and nutrient use as well as implementing cultural practices that include grassy strips and vegetated orchard floors which are protective of ground and surface waters.

Following is a table extracted from a powerpoint prepared by Regional Board staff, Mark Cady, which was presented at the 2012 Lake County Growers Meeting which includes the history of exceedances in Lake County. It demonstrates the remarkable record of our program. The table does not include a nitrate exceedance which was detected in February 2013. Our outreach to growers as a follow-up to that exceedance resulted in no evidence of an agricultural-related

nitrogen application that could have contributed to such a detection. The presence of numerous homes with private septic systems along the creek and/or the heavy riparian forest, including oak trees, along the waterway could be suspect points of nitrate in this instance.

Site name	Sample Date	Constituent	Result	Units	Trigger Limit
McGaugh Slough at Finley Road East	02/28/06	<i>Ceriodaphnia</i>	7	% Survival	
McGaugh Slough at Finley Road East	02/28/06	E. coli	2000	MPN/100ml	235
McGaugh Slough at Finley Road East	02/09/07	E. coli	690	MPN/100ml	235
Middle Creek u/s from Highway 20	02/09/07	DDT	0.0095	ug/L	0.00059
Middle Creek u/s from Highway 20	06/17/09	E. coli	240	MPN/100ml	235
Middle Creek u/s from Highway 20	05/20/10	E. coli	690	MPN/100ml	235
McGaugh Slough at Finley Road East	04/18/12	Conductivity	1177	uS/cm	700
McGaugh Slough at Finley Road East	04/18/12	Dissolved Oxygen	6.46	mg/L	7
McGaugh Slough at Finley Road East	05/16/12	Conductivity	1089	uS/cm	700
McGaugh Slough at Finley Road East	05/16/12	Dissolved Oxygen	5.58	mg/L	7
McGaugh Slough at Finley Road East	06/20/12	Conductivity	1329	uS/cm	700

Our past performance and the commodity specific efforts to continually protect ground and surface water, coupled with the minimal footprint of the agricultural community provides evidence of our dedication to protecting our valuable resources and the individual farmer who works daily as a proud steward of the land. Additional mandates and requirements have the potential to destroy our agricultural community and heritage.

In closing, we also want to reiterate the comments included in the comment letter presented by the Sacramento Valley Water Quality Coalition.

1. We request the Central Valley Regional Board recognize the unique differences within the Sacramento Valley watershed, and our Lake County region, in tailoring the reporting requirements to match our stewardship ethic and documented improvement to water quality.
2. The inevitable increase of a per-acre cost to our growers to comply with increased requirements will have a devastating impact on our small-scale growers.
3. In high vulnerability areas, we request the deadline be changed to August 1, 2015 to allow time for approval of the GAR, notification to those in high vulnerability areas, as well as time to complete and submit the Farm Evaluation template.
4. The due date for the GAR should be changed to April 11, 2015, one year after the Notice of Applicability.
5. The Reduced Monitoring/Management Practices Verification Option in the Sacramento Valley MRP should be included. For example, the last sentence of the first paragraph in

Section III. C. 1. a, which states, "The Central Valley Water Board does not anticipate that this option will apply to areas of the valley floor due to the intense agricultural land use.", should be stricken. The opportunity to consider this option is significant to our specific subwatershed and should be included.

6. The proposed MRP, if adopted, will require two consecutive years of Assessment Monitoring and a third year if a water quality objective or trigger limit is exceeded only once at a Representative Monitoring site during the two-year assessment period. This has the potential to create cost inefficiencies. One exceedance should not trigger a Management Plan. This requirement for a third assessment year should be dropped.
7. A strict interpretation of the low vulnerability area definition would preclude any area of the Sacramento Valley from qualifying as low vulnerability, negating the flexibility in the WDR and MRP created by different reporting cycles for Farm Evaluations, Nitrogen Management Plans, and/or Sediment Erosion Control Plans. We request the Regional Board to distinguish between water quality parameters so there is delineation between low and high vulnerability areas. A prioritization of parameters delineating those with the highest potential to create vulnerability to water (pesticides, toxicity, salinity, nutrients) should be listed in the definition, with areas with dissolved oxygen, pH and *E. coli* viewed as low vulnerability areas.
8. According to Regional Board staff estimates, 61% of growers and 4% of irrigated acres in the Sacramento Valley would be classified as Small Farming Operations. This represents an estimated 7,320 members and 71,080 irrigated acres. This definition was an accommodation made in the Eastern San Joaquin WDR Order. It is not of interest in the Sacramento Valley and will create administrative inefficiencies and costs by requiring us to track three separate classifications (low, high, small farming operations) of growers for reporting cycle purposes. We request this provision be removed from the Sacramento Valley WDR Order.
9. We request the removal of the third party entity requirement to report participants whose membership is pending revocation to avoid placing the third party entity in a regulatory position.
10. Allow third party entities the ability to modify the templates due to coalition-specific issues; including geographic distinctions, commodities, known water quality impairments, the propensity to impact water quality, and the size and scale of farming operations.

We look forward to continuing the conversation that acknowledges our unique differences while utilizing common-sense and scientific efforts developed for the Sacramento Valley Water Quality Coalition to benefit the regulatory program and the quality of our waters.

Regards,



Marc Hooper  
President

cc: Bruce Houdesheldt, Sacramento Valley Water Quality Coalition  
Marc Hooper, Lake County Farm Bureau

**From:** [lisa@winddancerranch.us](mailto:lisa@winddancerranch.us)  
**To:** [Cady\\_Mark@Waterboards](mailto:Cady_Mark@Waterboards)  
**Subject:** Written Comment Submitted on Proposed New Irrigated Lands Program Regulations  
**Date:** Thursday, October 10, 2013 8:45:13 AM

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To: Mark Cady, Central Valley Regional Water Quality Control Board

Dear Sir,

I am writing to express my strong opposition to the proposed new regulations for the Irrigated Lands Program in the Sacramento Watershed. These proposed regulations overstep the authority of the CV Water Board and have not been proven to be necessary even with your own collected data from the existing Irrigated Lands program. In addition these proposed regulations overlap and ignore existing water programs that work well in our counties and in some cases violate farmer's basic Constitutional rights.

As a farmer who cares deeply for my land and the environment in the entire State of California I want to believe that these regulations were proposed with the best of intentions. However, after reading them in detail I can only conclude they are being proposed to provide a windfall to large Agribusinesses, put small farmers out of business, establish "command and control" type dominance over farmers who can stay in business, and create the need for more jobs in your bureaucracy.

Sincerely,

Lisa Leonard

# North Eastern California Water Association

P.O. Box 367, McArthur, CA 96056

*NECWA's Mission is to protect and enhance water rights, water quality and riparian areas to the benefit of agriculture, the environment, recreation, and wildlife in the Northeastern California region.*

Dr. Karl Longley, Chairman  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Dr #200  
Rancho Cordova, CA 95670-6114

October 8, 2013

## **RE: Administrative Draft Sacramento Valley Waste Discharge**

### **Requirements**

Dear Chairman Longley:

As the Central Valley Regional Water Quality Control Board (Regional Water Board) considers the Administrative Draft of the Sacramento River Watershed Waste Discharge Requirements (WDR) and Monitoring Reporting Program (MRP) Order it should keep in mind how different the Sacramento Valley is from the other areas of the Central Valley for which the Regional Water Board has reviewed and/or approved WDRs and MRPs. The agronomic, topographic, land use patterns and hydrologic conditions vary significantly in the Sacramento Valley from other parts of the Central Valley.

In Northeastern California, where we are closer to the Oregon border than the Delta, the average growing season is 125 days compared to 296 days in the Sacramento Valley. In our watershed the amount of irrigated agricultural is dwarfed in comparison to timber and forest land. As Appendix MRP-3 states on Page 13, 56% percent of the land is held by federal or state agencies. Of the 2.7 million acres that encompass the watershed that stretches from Lake Shasta east to the Warner Mountains (less than 10 miles from the border with Nevada) a mere 5% is estimated by the Regional Board to be in irrigated agriculture.

Working with the extension specialists from the University of California we have documented management practices related to all the crops grown in the high elevation of the Modoc plateau. In partnership with the Resource Conservation Districts we have funded projects that improve water quality and minimize stream bank erosion through livestock and irrigated pasture management practices.

### **Costly Regulation is Proposed Even Where No Evidence of a Threat to Water Quality exists.**

Our coalition understands that there is a legacy nitrate groundwater contamination problem in the Central Valley. The Regional Board needs to take action in an effort to ensure the problem does not get worse. However, the proposed order includes multiple layers of regulatory burden on all farmers and ranchers that will not achieve the Regional Board's goal of improving water quality or preventing additional degradation, but will add a significant cost and burden. Many of the farmers and ranchers in our Coalition have already implemented the use of drip or low flow irrigation methods and practice good pesticide, herbicide and nutrient management practices that are protective of water quality.

The farmers and ranchers in our watershed area attend educational conferences and research the best methods to protect the water quality for the present and the future. While they may operate farms and ranches that overlie portions of a groundwater basin that the state deems "highly vulnerable," these farmers and ranchers and the local water quality conditions will not benefit from required attendance at *annual* education programs, the required completion and submittal of *annual* farm evaluations, or the *annual* nutrient management plans or reports. Rather, these items will only represent duplicative

paperwork and costly burdens on our individual members and on the Coalition – burdens that utilize precious resources that should be spent on activities that will actually improve management practices and improve or prevent further degradation of water quality.

### **Controlling Cost of Compliance is Imperative to Benefit Water Quality**

Despite our record of stewardship and lack of surface water quality exceedances the farmers and ranchers of the Upper Pit River will be saddled with the increased cost of an expanded regulatory program. A program whose focus is protecting groundwater quality from discharges that are not likely to be seen in our region of the Central Valley. It concerns us when we hear that costs in the Eastern San Joaquin have doubled from \$2 to \$4 to comply with the new program requirements. Our short growing season of 125 days compared to 296 days in the Sacramento Valley increases the difficulty for our farmers and ranchers to recoup the escalating costs of complying with the new program requirements. Money can be spent on reports or it can be spent on projects to improve water quality. In Northeastern California our view is it should be spent on projects that improve water quality.

If the cost of this program on a per acre-basis doubles or triples it will be a perceived disincentive to join a Coalition increasing the Regional Board outreach and enforcement costs, as well as its staff costs to manage individual WDRs. Water quality is important for agricultural production. This approach must work to the benefit of all.

It is important to recognize that farmers and ranchers face increasing costs, not just from water quality programs, but fire protection, water masters, air quality, etc., that each landowner must pay. These new regulatory requirements should not be viewed in isolation or the near term. Groundwater quality protection proposals like the Management Practices Effectiveness Program will be in place for a decade or more, through the inevitable up and down economic cycle of agriculture.

In our Upper Pit Watershed, we have worked to reduce monitoring costs by coordinating with the State Water Resource Control Board and the Surface Water Ambient Monitoring Program (SWAMP) to not duplicate efforts. This is one way to show how flexibility and innovation in the Long Term program can be achieved. We urge you to allow for that type of flexibility and localized adaptation as you implement the Long Term ILRP.

The ability to tailor the Waste Discharge Requirements (WDR) and Monitoring Reporting Program (MRP) to the diverse landscape of the Central Valley is imperative. Recognizing that a dissolved oxygen and/or elevated pH exceedance in the Upper Pit River, from natural occurrences, is different than in Stockton and therefore creating flexibility in the new program is essential.

### **Attachment B (Monitoring Reporting Program), Section III.C, Pages 2-3, Reduced Monitoring/Management Practices Verification Option**

The inclusion of the Reduced Monitoring/Management Practices Verification Option in the Sacramento Valley MRP is one step to achieving flexibility. But there is more that can be done by the Regional Board to craft a Sacramento Valley WDR and MRP that distinguishes and delineates it from the remainder of the Central Valley.

### **Attachment E (Definitions) Page 4, Low Vulnerability Area**

One of the distinguishing characteristics of the Sacramento Valley is the low occurrence of water quality exceedances that trigger Management Plans for registered pesticides. As Table 2 and Figure 4 on Page 20, of the Information Sheet (Attachment A) document there are 11 registered pesticide Management Plans and several of those are being considered by the Executive Officer for completion because proactive efforts have resulted in no exceedances in over three years. Similarly the Executive Officer has deemed several of the ten (10) toxicity and trace metals management plans listed in Table 2 complete. The Regional Board was provided in 2011 a Source Evaluation Report for Pathogen Indicators (*E. coli*) that ruled out irrigated agriculture as the source in 19 waterbodies.

On average the percentage of exceedances compared to number of tests is less than 10% for all constituents. Even the range of detect levels is low compared to other parts of the Central Valley. For

instance, electric conductivity (salinity) ranges from 58-1677 uS/cm. Proactive efforts by Sacramento Valley growers and ranchers have protected and improved surface water quality.

Yet a strict interpretation of the low vulnerability area definition would preclude any area of the Sacramento Valley from qualifying, negating the flexibility in the WDR and MRP created by different reporting cycles for Farm Evaluations, Nitrogen Management Plans, and/or Sediment Erosion Control Plans.

The definition of low vulnerability area on Page 4 of Attachment E (Definitions) simply states, “are all areas not designated as high vulnerability for either surface or groundwater or as determined by the Executive Officer.” High vulnerability areas for surface water are those that require a Surface Water Quality Management Plan (SWQMP). There is no regard for the type of exceedances that triggered the SWQMP. There should be. As is shown on Page 19 of Attachment A (Information Sheet) Central Valley Water Board staff found in analyzing surface water quality monitoring results for the entire Sacramento Valley that fewer than 4% exceeded water quality trigger limits. Two-thirds of the four percent were field measurements (e.g. dissolved oxygen, pH), drinking water and general physical parameters.

In our subwatershed it is these field measurements that have triggered Management Plans, not pesticides, nutrients or toxicity. The Regional Board must distinguish between water quality parameters so there is delineation between low and high vulnerability areas. Dr. Longley, you will remember from your tour of the Upper Pit Watershed several years ago, how different our high mountain agriculture watersheds are. We would appreciate having an opportunity for flexibility in the implementation of the Irrigated Lands Program that does not create additional burden to our landowners.

In conclusion we appreciate the Regional Board’s initial steps to craft a Long Term ILRP that aligns requirements and reports with conditions that exist in the upper watersheds of the Sacramento Valley. A continued dialog will benefit both water quality and the reality of the region alike.

Sincerely,

A handwritten signature in blue ink that reads "Myles Flournoy". The signature is written in a cursive style and is positioned above a horizontal line.

Myles Flournoy  
President  
Northeastern California Water Association

Cc: Jenny Lester Moffitt, Vice-Chair  
Jon Costantino  
Sandra Meraz  
Carmen Ramirez  
Robert Schneider

**From:** [PNSSNS](#)  
**To:** [Cady\\_Mark@Waterboards](mailto:Cady_Mark@Waterboards)  
**Subject:** Comment: Sac Valley Draft WDR & MRP  
**Date:** Tuesday, October 08, 2013 10:28:21 AM

---

Hi Mark,

Below is the PNSSNS email comments regarding the Sac Valley draft WDR & MRP due Oct. 11<sup>th</sup>. It is addressed to Dr. Longley and the Board Members. Thank you for your help in getting this to them before the deadline.

Linda Watanabe  
PNSSNS Subwatershed Group  
P.O. Box 1235  
Lincoln CA 95648  
916-645-1774 [www.cleanwaters.info](http://www.cleanwaters.info)

Dr. Karl E. Longley, Chair  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

**RE: Comments on Draft Waste Discharge Requirements**

Dear Dr. Longley and Board Members:

This comment letter is in response to your release of Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed. As the Placer-Nevada-South Sutter-North Sacramento Subwatershed Group (PNSSNS) Board of Directors (volunteer farmers/ranchers), we have witnessed the effect of the Irrigated Lands Regulatory Program (ILRP) on our agricultural producers, natural resources and overall economy. Regardless of the Irrigated Lands Regulatory Program (ILRP), current members, former members and non-members have always worked closely with the local agricultural commissioners, resource conservation districts and UC Davis Coop extension farm advisors to maintain cost effectiveness in producing crops, managing natural resources and keeping the environment clean. Their pro-activeness in implementing best management practices to preserve our waters is evident in the past ten years of water monitoring results.

Currently, PNSSNS has 27,000 acres enrolled under the Sacramento Valley Water Quality Coalition (SVWQC) with 500 landowners representing diversity in size, crops and geology. From walnuts, orchards, row crops, grains and cattle on the valley floor to citrus, grapes, berries, and livestock in the foothills and the upperwatershed. We respectfully submit the following:

## **1. Control Cost of Compliance to Benefit Water Quality**

Despite our record of stewardship and lack of surface water quality exceedances the ranchers and growers of PNSSNS will see ever higher costs of an expanded regulatory program. This program focuses on protecting groundwater quality from discharges unlikely to be seen in our region of the Central Valley. It concerns us when we hear that costs in Eastern San Joaquin have doubled from \$2 to \$4 to comply with the new program requirements. State Board Oversight fees alone have increased 625% per acre (12¢ to 75¢) since the inception of this program. Moreover, individual farmers also pay for fire protection, water masters, air quality, etc. Please do not view program cost increases in isolation or the near term. The steadily rising cost of this program insures a steady loss of membership. Approximately 70% of PNSSNS consist of small farms 20 acres or less. They simply can't afford the cost of over-zealous water monitoring.

Currently the MRP requires just one year, followed by two years of Core Monitoring (field parameters) plus management plan parameters. The proposed MRP will, if adopted, require two consecutive years of Assessment Monitoring and a third year if a water quality objective or trigger limit is exceeded only once at a Representative Monitoring site during the two-year assessment period. One exceedance does not a Management Plan trigger, especially when there is no distinction between low and high vulnerability areas. Please prioritize parameters delineating those with the highest potential to create vulnerability to water (pesticides, toxicity, salinity, nutrients) and those with dissolved oxygen, pH and E. coli viewed as low vulnerability areas. And please drop this requirement for a third assessment year.

## **2. Low Vulnerability Option**

The definition of low vulnerability area on Page 4 of Attachment E (Definitions) simply states, "are all areas not designated as high vulnerability for either surface or groundwater or as determined by the Executive Officer." Yet, the last sentence of the first paragraph in Section III. C. 1. a, states, "The Central Valley Water Board does not anticipate that this option will apply to areas of the valley floor due to the intense agricultural land use." Please strike this. PNSSNS monitoring results have been excellent. Please re-visit our monitoring results and consider a reduced Monitoring / Management approach that fit the needs of the Sacramento Valley water quality issues, not the needs of other WDRs being adopted.

## **3. Low Vulnerability option for 2013-14 Assessment Monitoring**

Please consider permitting those groups approved for low vulnerability option to use the results from the past nine (9) years of water monitoring to replace the 1st assessment year (2013-14) with the next assessment year monitoring to occur in 5 years (2017-18). To obtain the level of individual reports required by this new program, there will be increased need for one-on-one outreach and education. As a result, staff costs will increase to produce these new reporting and tracking requirements. Subwatersheds that have proven record of low vulnerability monitoring results should not be further financially penalized by requirements for more testing.

Thank you for your consideration.

Respectfully,

PNSSNS Board of Directors

Tom Aguilar – President, Placer Co. Mandarin Grower

Ed Sills – Vice President, Sutter Co. Organic Diverse Crop Grower

Bonnie Ferreira – Treasurer, Placer Co. Cattle Rancher

Jim Gates – Secretary, Nevada Co. Cattle Rancher

Alan Lauppe – Director, North Sacramento Co. Diverse Crop Grower

Matt Conant – Director, Sutter Co. Walnut Grower

Carol Scheiber – Director, Placer Co. Cattle Rancher

Frank Correia – Alternate Director, Placer Co. Cattle Rancher



October 11, 2013

Dr. Karl Longley, Chairman  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Dr #200  
Rancho Cordova, CA 95670-6114

**RE: Administrative Draft Sacramento Valley Waste Discharge Requirements**

Dear Chairman Longley:

The Sacramento River Watershed Waste Discharge Requirements (WDR) General Order is unlike any previous WDR the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has considered to date. It will cover a diverse landscape. For example, the Sacramento River watershed has tens of thousands of acres hundreds of miles away from the Delta where livestock graze in the summer on irrigated pasture at elevations above 3000 feet and the growing season is a mere five months. It is home to a major portion of the Pacific Flyway where millions of birds forage and nest in state and federal refuges. It extends from the Delta north to the shadow of Mount Shasta then northeast to the Oregon border, a landscape where the cropping pattern is predominately alfalfa, walnuts and almonds with fewer acres of field and row crops than in other parts of the Central Valley.



Source: California Department of Food and Agriculture, 2013

Whether it is a Sierra Valley ranch, a Lake County organic pear orchard, or walnuts in Butte County, there is one unifying theme to the Sacramento Valley: its proactive stewardship. Stewardship that has fostered a partnership between irrigated agriculture and local Farm Bureaus, University of California (UC) Extension crop specialists, County Agricultural Commissioners, the Natural Resource Conservation Service (NRCS) and Resource Conservation District staffs to improve and protect surface water quality. This partnership has resulted in over \$25 million dollars in funding (Table 3, Pages 22-23, Attachment A – Information Sheet) available to growers and livestock operations for management practices that protect and improve water quality.

The results of the partnership are unlike those anywhere else in the Central Valley. As is documented by the Regional Board staff, 96% of monitoring results from 50 sampling sites in the Sacramento Valley are below water quality trigger limits. (Figure 3, Page 19, and Table 2, Summary of Surface Water Quality Data 2005 – 2012, Pages 20-21 of Attachment A- Information Sheet.) Two-thirds of the remaining 4% are exceedances of parameters that are influenced much more by natural conditions than agricultural practices (e.g., conductivity, dissolved oxygen, pH, and *E. coli*.)

Considering these results do growers in the Sacramento Valley Coalition area warrant being subject to the same level of reporting proposed in other WDRs and Monitoring Reporting Programs (MRPs)? Clearly this warrants continuing the same level of action to protect and improve water quality, but not the same frequency and level of reporting. The Administrative Draft WDR and MRP take the first steps to recognize this, but doesn't fully balance the Sacramento Valley monitoring results with the cost of the new requirements. The new program should be about results not reports.

There are numerous examples showing how the partnership has benefited water quality. In Walker Creek (Glenn County) and Pine Creek (Butte County), the Agricultural Commissioners' Pilot Program was instrumental in conducting outreach to growers, documenting management practices and determining the source of chlorpyrifos exceedances. These exceedances have not reoccurred.

In Northeastern California, where the amount of irrigated agriculture is dwarfed in comparison to timber and forest land (Appendix MRP-3, Page 13, 56% percent of the land is held by federal or state agencies), growers took the initiative to work with specialists from the UC Extension and documented management practices related to all the crops grown in the high elevation of the Modoc plateau, even though it was not required by a management plan. In partnership with the Resource Conservation Districts and the NRCS, landowners have funded projects that improve water quality and minimize stream bank erosion through livestock and irrigated pasture management practices.

It is this same kind of partnership that the Sacramento Valley growers will implement to protect and improve groundwater quality.

The sustainable nature of Sacramento Valley agriculture is not happenstance. Many growers have been farming in the Sacramento River watershed for three or more generations. Water quality is as important to agriculture as it is to others who rely on it.

Dr. Karl Longley  
Sacramento River Watershed WDR  
October 11, 2013  
Page 3

As the Central Valley Regional Water Quality Board considers the Administrative Draft of the Sacramento River Watershed WDR and MRP Order, we encourage you to be cognizant of how different the Sacramento Valley is from the other areas of the Central Valley for which the Central Valley Water Board has reviewed and/or approved WDRs and MRPs. The agronomic, topographic, cropping and land use patterns, and hydrogeological conditions are significantly different from other parts of the Central Valley and are significantly diverse within the Sacramento River watershed.

We request that the Central Valley Water Board recognize these differences in tailoring the reporting requirements to match our stewardship ethic and documented improvements to water quality. The Administrative Draft WDR and MRP collectively in several places contain the foundational elements for a program that is tailored to the characteristics of the Sacramento Valley. A continued dialog and further revisions will benefit both water quality and the regulated community alike.

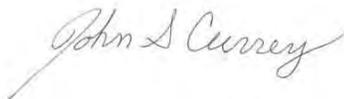
Water quality is important to agriculture. Protecting that water quality is essential to maintaining yields and economic viability. But responsible stewardship of any public resource requires balancing prudent fiscal and societal decisions to ensure progress is made.

Attached are our specific comments on the Administrative Draft WDR and MRP.

Sincerely,



Larry Domenighini  
President/Grower  
Colusa Glenn Subwatershed



John Currey  
Manager Dixon Resources Conservation District/Grower  
Dixon Solano Subwatershed



Steve Danna  
President/Grower  
Butte Yuba Sutter Subwatershed



Carolyn Mansfield  
President/Grower  
El Dorado County Water Quality Management  
Corporation

Dr. Karl Longley  
Sacramento River Watershed WDR  
October 11, 2013  
Page 4



Marc Hooper  
President  
Lake County Farm Bureau



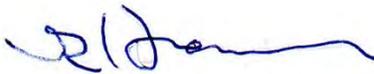
Tom Aguilar  
President/Grower  
Placer-Nevada-South Sutter-North Sacramento  
Subwatershed



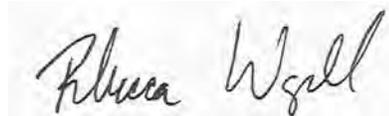
Sandy Elles  
Executive Director  
Napa County Farm Bureau



Myles Flourney  
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Northeastern California Water Association



Robert Harris  
President/Rancher  
Shasta Tehama Watershed Education Coalition



Rebecca Waegell  
Manger  
Sacramento Amador Water Quality Alliance



Russell Reid  
Chairman  
Upper Feather River Watershed Group



Denise Sagara  
Executive Director  
Yolo County Farm Bureau Education Corporation

Cc: Jenny Lester Moffitt, Vice-Chair  
Sandra Meraz  
Robert Schneider

Jon Costantino  
Carmen Ramirez

Pamela Creedon  
Susan Fregien

Joe Karkoski  
Mark Cady

## ATTACHMENT - Sacramento Valley Water Quality Coalition Specific Comments

### **Waste Discharge Requirements (WDR) Order, Finding 38, Pages 10-11**

#### *Controlling Cost of Compliance is Imperative to Benefit Water Quality*

The fee for this program as adopted by the State Water Resources Control Board (State Board) (i.e., State Water Quality Fee) has increased twice in the last three years. In September, the State Board increased the annual permit fee from 56 cents to 75 cents an irrigated acre. The Coalition members in the Sacramento Valley collectively now pay nearly \$1 million dollars in State Water Quality Fees, which include the increase adopted in September. Because the fee is likely to change during the life of the WDR any exact amount included in the WDR will be inaccurate.

Despite the Coalition's record of stewardship and limited surface water quality exceedances, the ranchers and growers of the Sacramento Valley will be saddled with increased costs of an expanded regulatory program, whose focus is protecting groundwater quality from discharges (i.e., nitrates) that will not be similar in scope in the Sacramento River watershed with those found in the nitrate studies of the Salinas Valley and Tulare Lake region. It concerns us to hear that costs in the Eastern San Joaquin have doubled from \$2 to \$4 per acre to comply with the new program requirements. Money can be spent on reports or it can be spent on projects to improve water quality. In our view it is best spent on projects that improve water quality.

Our Coalition understands there is a legacy nitrate groundwater contamination problem in the Central Valley and elsewhere in the state. The Central Valley Water Board needs to take action to remedy the problem and prevent further contamination, but in the Sacramento Valley we are already protecting water quality from degradation. Extensive and increasing use of drip or low flow irrigation methods and recommended pesticide, herbicide and nutrient management practices that are protective of water quality are already in use by Coalition members.

If the cost of this program doubles or triples on a per acre-basis, the cost may become a perceived disincentive to join a Coalition, which would likely result in increased cost for the Central Valley Water Board due to increased outreach and enforcement efforts, as well as staff resources needed to manage individual WDRs. Water quality is important for agricultural production. This approach must work to the benefit of all.

It is important to recognize that ranchers and growers face an increasing burden of time and cost, not just from water quality programs, but also from fire protection, watermaster program fees, air quality, etc., that each landowner must pay. These proposed new regulatory requirements should not be viewed in isolation or the near term. With the exception of coordination of monitoring with the Surface Water Ambient Monitoring Program (SWAMP) in the Upper Feather River and Pit River subwatersheds the last two years, there has been little the Coalition members can point to that the fees are being used to benefit water quality in the Sacramento Valley.

Groundwater quality protection proposals like the Management Practices Effectiveness Program (MPEP) will be in place for a decade or more, through the inevitable up and down economic cycle of agriculture. The MPEP will cost millions of dollars to improve scientific understanding of the amount of nitrate applications that potentially impact groundwater quality and the management needed to avoid these potential impacts.

The ability to tailor the WDR and MRP to the diverse landscape of the Sacramento Valley is imperative. Recognizing that a dissolved oxygen exceedance in the Upper Pit River, with only 5% of the land mass in irrigated acres, is different than in Stockton and therefore creating flexibility in the new program is essential.

#### **Waste Discharge Requirements (WDR) Order Farm Evaluations Templates – Maps and Well Information- Section VII. B. 2. Page 24**

The changes (Footnote) made in the Tulare Lake and Eastern San Joaquin WDRs specifying that, “Any farm map or information on the location of wells on the farm does not need to be provided to the third-party Group,” should be added to the Sacramento River WDR.

#### **Waste Discharge Requirements (WDR) Order- Farm Evaluations High Vulnerability Areas, Section VII. B. 2, Page 24**

By 1 March 2015, all members within high vulnerability areas (Surface/Groundwater) must prepare their Farm Evaluation and Nitrogen Management Plan Summary for submittal to the third-party entity. In order to meet this 1 March 2015, deadline growers will have to know if they are in high vulnerability areas by the fall/winter of 2014.

However, please note that as is indicated on Table 7, on Page 60 of Attachment A (Information Sheet) the Groundwater Quality Assessment Report (GAR) which will identify high vulnerability areas is not due until 11 March 2015. The Regional Board staff will be reviewing, revising and making recommendations to the Executive Officer on a number of GARs at the same time.

Due to the timing of the GAR, it is appropriate that the first Farm Evaluation and Nitrogen Management Plan Summary Report deadline be changed to 1 March 2016 to allow time for approval of the GAR, notification to those in high vulnerability areas, as well as time to complete and submit the Farm Evaluation template and Nitrogen Management Plan Summary report. The date in Table 8 for Farm Evaluations in high vulnerability areas should also be changed.

#### **Waste Discharge Requirements (WDR) Order- Watershed/Subwatershed Sediment and Erosion Control Plan, Section VII. C. 2, Page 25**

The Coalition supports the inclusion of the option for groups of agricultural landowners to work together on sediment and erosion control, in lieu of preparing individual Sediment and Erosion Control Plans. This represents a cost effective approach to compliance. This type of flexibility in the WDR and MRP allows the Central Valley Water Board to understand that different compliance approaches may be beneficial.

#### **Attachment A (Information Sheet) Table 7, Page 60, Due Date for GAR**

The schedule of deliverables, required timelines, and approximate due dates listed in Table 7 on Page 60 of Attachment A (Information Sheet) indicates the Groundwater Quality Assessment Report (GAR) is due 11 March 2015 one year after the Notice of Applicability (NOA). This date seems to presume that the NOA will occur at the same time as the Regional Board’s decision on the Sacramento River Watershed

WDR General Order. In all likelihood the NOA will be on 11 April 2014. The due date for the GAR should be changed to 11 April 2015, one year after the NOA.

### **Attachment B (Monitoring Reporting Program), Section III.C, Pages 2-3, Reduced Monitoring/Management Practices Verification Option**

The inclusion of the Reduced Monitoring/Management Practices Verification Option in the Sacramento Valley MRP is an important step to achieving flexibility. But there is more that can be done by the Central Valley Water Board to craft a Sacramento Valley WDR and MRP that is consistent with the goals of the Irrigated Lands Regulatory Program and still acknowledges the differences from the remainder of the Central Valley.

For example, the last sentence of the first paragraph in Section III. C. 1. a, which states, "The Central Valley Water Board does not anticipate that this option will apply to areas of the valley floor due to the intense agricultural land use—" should be stricken. There are portions of the Sacramento Valley which have successfully completed management plans and have taken action to address water quality exceedances by funding and using management practices. They should be credited with their proactive efforts and qualify for this option. This would be further incentive to be classified as low vulnerability (by not having any active high priority management plans), regardless of location and/or intensity of agriculture. The frequency of monitoring should be proportionate to the occurrence of exceedances, This is particularly important considering that the new MRP increases the required assessment monitoring to at least two consecutive years.

Lastly, two subwatersheds—El Dorado County and the Putah Creek (Napa) subwatersheds—have successfully implemented a Pilot Management Practices Program for the last three years. They have used a comprehensive survey of management practices, have verified that the practices are in place, and have done extensive outreach and education. In the case of the Napa subwatershed, there is a conservation ordinance in place to address sediment and erosion control. Similarly, El Dorado has an agricultural grading ordinance in place that also addresses these measures. Both El Dorado and Napa Counties also have a substantial number of acres enrolled in the Fish Friendly Farming program, which is focused on environmentally sound, sustainable practices that meet and exceed 19 local, state and federal land or production best practices and are certified by an independent third party. Napa and El Dorado growers voluntarily participate in farm-specific practices tailored to protect and enhance the ecological quality of the region. These two subwatersheds should not have to start all over again. The programs that were developed under the existing MRP should continue to apply under the proposed Order and should be implemented as previously approved by the Executive Officer.

In a United States Geological Survey (USGS) publication entitled, *Groundwater-Quality Data for the Sierra Nevada Study Unit, 2008: Results from the California GAMA Program*, the groundwater quality data results were summarized on pages 13 and 14. Contaminants were rarely detected with very few cases of contaminants approaching or exceeding drinking water health thresholds for groundwater quality in the Sierra Nevada Study Unit. Nitrates are essentially non-existent issue, and only a couple of highly mobile herbicides plus one common residential use pesticide (fipronil) were detected. None of these were at levels considered to be a health concern. Of the herbicides, atrazine and simazine have some agricultural use, and hexazinone is almost exclusively used for forestry applications. Fipronil is used only for "structural pest control" (termites mostly).

The conclusions of the report indicate that agriculture has not degraded groundwater quality in the Sierra Nevada region, and supports the reduced monitoring option for the region.

Under the Sacramento Valley Water Quality Coalition's (Coalition) current MRP 2013-2014 is an assessment year for surface water quality monitoring. The Coalition supports and appreciates that the MRP allows the 2013-2014 assessment year to qualify as one of the two consecutive assessment years required in the Administrative Order. We request the Board allow the same flexibility by allowing those subwatersheds who wish to pursue the reduced monitoring/management practices verification option to use the 2013-14 assessment year, and the surface water quality results from the past nine (9) years, along with completion of the Farm Evaluation reports in 2014 to support their request.

### **Attachment B (Monitoring Reporting Program), Section III. A. 1, Page 5, Assessment Monitoring**

Currently the MRP requires just one year assessment monitoring, followed by two years of Core Monitoring (field parameters) plus management plan parameters. The proposed MRP will, if adopted, require two consecutive years of Assessment Monitoring and a third year for any specific pollutant if a water quality objective or trigger limit **is exceeded only once at a Representative Monitoring site during the two-year assessment period**. This has the potential to create cost inefficiencies by having monitoring and sampling crews travelling sporadically throughout the Sacramento Valley taking one sample here and another there. One exceedance does not trigger a Management Plan. This requirement for a third assessment year should be dropped.

Additionally, as discussed below this requirement makes no distinction between waterbody pollutants that are primarily influenced by agriculture (e.g., pesticides and nutrients) and those that are influenced primarily by natural conditions, are field measurements of habitat conditions and marginally influenced by agriculture (e.g., dissolved oxygen, pH, and E. coli).

### **Attachment E (Definitions) Page 4, Low Vulnerability Area**

One of the distinguishing characteristics of the Sacramento Valley is the low occurrence of water quality exceedances that trigger Management Plans for registered pesticides. As Table 2 and Figure 4 on Page 20, of the Information Sheet (Attachment A) document, there are 11 registered pesticide Management Plans and several of those are being considered by the Executive Officer for completion because proactive efforts have resulted in no exceedances in over three years. Similarly, the Executive Officer has deemed several of the ten (10) toxicity and trace metals management plans listed in Table 2 complete. The Central Valley Water Board was provided in 2011, a Source Evaluation Report for Pathogen Indicators (*E. coli*) that ruled out irrigated agriculture as a significant source in 19 waterbodies.

On average, the percentage of exceedances compared to number of tests is less than 10% for all constituents. Even the range at which pollutants were detected is low when compared to other parts of the Central Valley. For example, electric conductivity (salinity) ranges from 58-1677 uS/cm. Proactive efforts by Sacramento Valley growers and ranchers have protected and improved surface water quality.

Yet a strict interpretation of the current low vulnerability area definition in the WDR would preclude any area of the Sacramento Valley from qualifying as low vulnerability, thereby negating the intended flexibility provided in the WDR and MRP created by different deadlines and reporting cycles for Farm Evaluations, Nitrogen Management Plans, and/or Sediment Erosion Control Plans.

The definition of low vulnerability area on Page 4 of Attachment E (Definitions) simply states, “. . . all areas not designated as high vulnerability for either surface or groundwater or as determined by the Executive Officer.” High vulnerability areas for surface water are then defined as those that require a Surface Water Quality Management Plan (SWQMP). Specifically, a surface water could be considered high vulnerability due to elevated pH even though all other pollutants are below limits, or perhaps not even detected. Such a designation as high vulnerability based on such a field parameter is inappropriate and the WDR and MRP should account for such instances. The definition and designation does not consider or take into account the type of exceedances that triggered the SWQMP or whether agriculture has been determined to be the cause of the exceedances. As is shown on Page 19 of Attachment A (Information Sheet) Central Valley Water Board staff found in analyzing surface water quality monitoring results for the entire Sacramento Valley that fewer than 4% exceeded water quality trigger limits. Two-thirds of the four percent (4%) were for parameters that are influenced primarily by natural conditions and marginally influenced by agriculture (e.g., dissolved oxygen, pH, and *E. coli*).

In many of our subwatersheds it is these field measurements that have triggered Management Plans, not pesticides, nutrients or toxicity. The Regional Board must distinguish between the nature of water quality parameters being exceeded that are clearly agricultural issues and so there is a meaningful delineation between low and high vulnerability areas. A prioritization of parameters delineating those with the highest agricultural potential to adversely impact water quality (pesticides, toxicity, salinity, nutrients) should be included in the vulnerability definition, with areas that have Management Plans only for dissolved oxygen, pH and *E. coli* included in the low vulnerability areas.

#### **Attachment E (Definitions) Page 5, Small Farming Operations**

According to Central Valley Water Board staff estimates that 61% of growers and 4% of irrigated acres in the Sacramento Valley would be classified as Small Farming Operations. This represents an estimated 7320 members and 71,080 irrigated acres.

This designation creates inequities between growers. What is the justification for someone with 60 acres being treated differently than someone with 70 acres? As the Central Valley Water Board heard at the Public Workshop on the San Joaquin County and Delta Administrative Order, the definition of a small farm based on economic sustainability can be anywhere from 400-800 acres.

This definition was an accommodation made in the Eastern San Joaquin WDR Order due to requests by grower organizations in the southern San Joaquin Valley - not the Sacramento Valley. It will potentially create data gaps in high vulnerability areas, providing an incomplete picture of management practices and inputs for the Central Valley Water Board. It will create administrative inefficiencies and costs for the Sacramento Valley by requiring us to track three separate classifications (low, high, small farming operations) of growers for reporting cycle purposes. This provision should be removed from the Sacramento Valley WDR Order.

#### **General Order Page 28, Provision VIII. B—Membership (Participant) List**

In the Sacramento Valley our participant list includes those who have paid their invoice and complied with requests for information. If they have not met these two requirements they are not included in the Participant List. The language requiring us to list members who have been revoke or are pending revocation places it in the role of regulator and should be stricken.

**General Order Page 28, Provision VIII. C—Template Requirements for Farm Evaluations, Nitrogen Management Plans, and Sediment and Erosion Control Plans**

We recommend the inclusion of language to allow third-parties the ability to modify the templates due to coalition-specific issues, including geographic area, the commodities grown, known water quality impairments, the propensity to impact water quality, and the size and scale of farming operations. Such tailoring will allow the Regional Board to obtain the most relevant information specific to the area being regulated while also allowing growers to minimize costs.

Dr. Karl E. Longley, Chair  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, #200  
Rancho Cordova, California 95670-6114

**RE: Comments on Draft Waste Discharge Requirements**

Dear Dr. Longley and Board Members:

This comment letter is in response to your release of Draft Waste Discharge Requirements (WDR) for discharges from irrigated lands within the Sacramento River Watershed. As the Placer-Nevada-South Sutter-North Sacramento Subwatershed Group (PNSSNS) Board of Directors (volunteer farmers/ranchers), we have witnessed the effect of the Irrigated Lands Regulatory Program (ILRP) on our agricultural producers, natural resources and overall economy. Regardless of the Irrigated Lands Regulatory Program (ILRP), current members, former members and non-members have always worked closely with the local agricultural commissioners, resource conservation districts and UC Davis Coop extension farm advisors to maintain cost effectiveness in producing crops, managing natural resources and keeping the environment clean. Their pro-activeness in implementing best management practices to preserve our waters are evident in the past ten years of water monitoring results.

Currently, PNSSNS has 27,000 acres enrolled under the Sacramento Valley Water Quality Coalition (SVWQC) with 500 landowners representing diversity in size, crops and geology. From walnuts, orchards, row crops, grains and cattle on the valley floor to citrus, grapes, berries, and livestock in the foothills and the upperwatershed. We respectfully submit the following:

**1. Control Cost of Compliance to Benefit Water Quality**

Despite our record of stewardship and lack of surface water quality exceedances the ranchers and growers of PNSSNS will see ever higher costs of an expanded regulatory program. This program focuses on protecting groundwater quality from discharges unlikely to be seen in our region of the Central Valley. It concerns us when we hear that costs in Eastern San Joaquin have doubled from \$2 to \$4 to comply with the new program requirements. State Board Oversight fees alone have increased 625% per acre (12¢ to 75¢) since the inception of this program. Moreover, individual farmers also pay for fire protection, water masters, air quality, etc. Please do not view program cost increases in isolation or the near term. The steadily rising cost of this program insures a steady loss of membership. Approximately 70% of PNSSNS consist of small farms 20 acres or less. They simply can't afford the cost of over-zealous water monitoring.

Currently the MRP requires just one year, followed by two years of Core Monitoring (field parameters) plus management plan parameters. The proposed MRP will, if adopted, require two consecutive years of Assessment Monitoring and a third year if a water quality objective or trigger limit is exceeded only once at a Representative Monitoring site during the two-year assessment period. One exceedance does not a

Management Plan trigger, especially when there is no distinction between low and high vulnerability areas. Please prioritize parameters delineating those with the highest potential to create vulnerability to water (pesticides, toxicity, salinity, nutrients) and those with dissolved oxygen, pH and E. coli viewed as low vulnerability areas. And please drop this requirement for a third assessment year.

## **2. Low Vulnerability Option**

The definition of low vulnerability area on Page 4 of Attachment E (Definitions) simply states, "are all areas not designated as high vulnerability for either surface or groundwater or as determined by the Executive Officer." Yet, the last sentence of the first paragraph in Section III. C. 1. a, states, "The Central Valley Water Board does not anticipate that this option will apply to areas of the valley floor due to the intense agricultural land use." Please strike this. PNSSNS monitoring results have been excellent. Please re-visit our monitoring results and consider a reduced Monitoring / Management approach that fit the needs of the Sacramento Valley water quality issues, not the needs of other WDRs being adopted.

## **3. Low Vulnerability option for 2013-14 Assessment Monitoring**

Please consider permitting those groups approved for low vulnerability option to use the results from the past nine (9) years of water monitoring to replace the 1st assessment year (2013-14) with the next assessment year monitoring to occur in 5 years (2017-18). To obtain the level of individual reports required by this new program, there will be increased need for one-on-one outreach and education. As a result, staff costs will increase to produce these new reporting and tracking requirements. Subwatersheds that have proven record of low vulnerability monitoring results should not be further financially penalized by requirements for more testing.

Thank you for your consideration.

Respectfully,

*Susan Hock*

Robinson Ranch

Penn Valley, California 95945



Yolo County Farm Bureau Education Corporation

## ***Irrigated Lands Program***

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October 10, 2013

Dr. Karl Longley, Chairman  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Dr #200  
Rancho Cordova, CA 95670-6114

### **RE: Administrative Draft Sacramento Valley Waste Discharge Requirements**

Dear Chairman Longley:

When the Conditional Ag Waiver program started in the early 2000's the Regional Board (together with the Water Quality Coalitions) adopted a watershed approach to regulation. Individual Waste Discharge Requirements (WDR) in The Sacramento Valley and end-of-field monitoring were seen as not only cumbersome and expensive, but with over 6 million acres of farmland and 50,000+ operations to regulate<sup>1</sup>, this single program, without the watershed approach, would have dwarfed all the other Regional Board programs combined. Therefore a watershed approach to regulation was adopted, with regional ambient monitoring, coalition style outreach, and a dependence on the existing Department of Pesticide Regulation's Pesticide Use Reporting (PUR) program as the main tracking database for on-farm practices that impact water quality (ie. pesticide applications). So far, the watershed approach has been an imperfect system, yet has had many successes, in the Sacramento Valley.

The new Sacramento River watershed Waste Discharge Requirements (WDR) General Order is unlike any previous WDR the Central Valley Regional Water Quality Control Board (Central<sup>1</sup> Valley Water Board) has considered to date. For example, on-farm reporting requirements, a small component of the new program, will mandate the creation of more than 150,000 plan documents alone (although not submitted to the Board, Farm Evaluations, Nitrogen Management, and Sediment/Erosion Plans will be required for all farming operations). Currently (FY2102-13), all Regional Boards together statewide review less than 18,000 monitoring reports for all purposes combined<sup>2</sup>. Other components of the new WDR will have similar dramatic increases in reporting requirements.

The geographic size and diversity of the Sacramento Valley creates a challenge for regulatory programs. Some geographic areas need improvement, while others have little agricultural impacts. Regulatory flexibility is key to success. We urge you to consider our recommendations and the recommendations submitted by the Sacramento Valley Water Quality Coalition (**in their comment letter sent Oct 11, 2013**) and **comments from** the individual subwatersheds for flexibility in the program.

Sincerely,

Eric Paulsen  
President

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(1) [http://www.waterboards.ca.gov/about\\_us/performance\\_report\\_1213/regulate/24111\\_irrigated\\_lands.shtml](http://www.waterboards.ca.gov/about_us/performance_report_1213/regulate/24111_irrigated_lands.shtml) accessed Oct 9, 2013

(2) [http://www.waterboards.ca.gov/about\\_us/performance\\_report\\_1213/regulate/](http://www.waterboards.ca.gov/about_us/performance_report_1213/regulate/) accessed Oct 9, 2013

October 10, 2013

130231:BS:EC

Sent via e-mail to Mark.Cady@waterboards.ca.gov

**Subject:** Sacramento River Source Water Protection Program Comments on ILRP Administrative Draft WDRs General Order for Sacramento River Watershed

Dear Mr. Mark Cady:

On behalf of the Sacramento River Source Water Protection Program (SRSWPP), thank you for the opportunity to provide comments on the Irrigated Lands Regulatory Program (ILRP) Administrative Draft Waste Discharge Requirements General Order for Growers within the Sacramento River Watershed (Sacramento Valley Order). The SRSWPP is sponsored by the City of Sacramento and the Sacramento County Department of Water Resources; this program is coordinated with other agencies that draw their drinking water from the Sacramento River (or have plans to do so), including the City of West Sacramento, East Bay Municipal Utility District, and the Woodland-Davis Clean Water Agency. We serve drinking water to more than 600,000 people in Northern California.

Watershed management programs are essential for preserving the high quality of the Sacramento River watershed. The Central Valley Regional Board and other regulatory agencies, regulated communities, and educational organizations have made significant strides. We appreciate the substantial efforts of the Sacramento Valley Water Quality Coalition (SVWQC) and the ILRP to protect water quality. We believe that the draft Sacramento Valley Order provides the major components for this long-term order, and we are proposing specific modifications to assist in finalizing the Order while meeting our interests.

The SRSWPP seeks to maintain the high quality of the Sacramento River drinking water supply for the current and future generations. It is our responsibility as water utilities to ensure that our water is both healthful and free of any unpleasant taste, odor, or other aesthetic effects. We have been actively providing stakeholder input during the development of the Long Term Irrigated Lands Regulatory Program (ILRP) orders, because they have the potential to impact source water quality for current and future water quality constituents of interest. Source water protection is part of a "multi-barrier" approach to providing safe drinking water. Drinking water treatment alone cannot always be successful in removing contaminants. Even in cases where treatment is an option, treatment can be substantially more costly than source water protection. We rely on management programs, including the Long Term ILRP, as part of the source water protection in the Sacramento Valley.

Over the last two decades, USGS and other monitoring programs have detected pesticides in the Sacramento River.<sup>1</sup> The presence of pesticides in the river demonstrates that there are pathways for water pollutants in agricultural discharges to reach downstream water supplies. In addition, our ongoing drinking water source assessments continue to identify agriculture as a significant possible contaminating activity in our watershed. Possible contaminating activities are human activities that are actual or potential origins of contamination for a drinking water source; these include sources of both microbiological and chemical contaminants that could have adverse effects upon human health. We appreciate the significant efforts of the SVWQC to implement extensive monitoring programs, management plans, and education and outreach efforts to its members as part of the Conditional Waiver for the Sacramento River Watershed. This has resulted in significant reductions in frequency and detected levels of pesticides in the Sacramento River.

Agriculture has the potential to contribute numerous constituents of interest to our source water. Our key interests for the Sacramento River drinking water supply, in addition to pesticides, include turbidity, organic carbon, and pathogens. Historical data collected as part of the ILRP indicates that these constituents are contributed by agriculture, so we support their inclusion in this long term Order by monitoring and implementing control measures, as appropriate.

Our comments include a summary of major items, as well as specific requested modifications to the language in the Draft Order and its supporting documents (Attachment 1).

### **Antidegradation**

The Order and its attachments may not be fully consistent with the state Antidegradation Policy (State Water Board Resolution 68-16), state guidance for implementing this policy (including but not limited to the State Water Board Guidance Memorandum of February 16, 1995, and the Memorandum from M. Lauffer to Tom Howard dated February 22, 2013 and its attachments), and case law; e.g., *Asociación de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Board* (2012) 210 Cal.App.4th 1255 (AGUA).

Under the authorities cited above, the Antidegradation Policy applies whenever there is (a) existing high quality water (surface water or groundwater), and (b) an activity that will discharge waste into such high quality water. High quality waters are those that contain levels of one or more water quality constituents or characteristics that are better than the applicable water quality objective(s). Available monitoring data in the Water Board's records indicate that many—if not most—of the waters receiving agricultural discharges are “high quality waters” as defined by Resolution 68-16, as are downstream waters, such as the Sacramento River, which serves as our drinking water source.

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<sup>1</sup> Detections include both rice pesticides and pesticides like diazinon and chlorpyrifos that are not used on rice.

Under California Antidegradation policy: (1) the existing high quality must be maintained, unless it is demonstrated that any change “will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed” by the applicable water quality objectives; and (2) the activity will be required to meet waste discharge requirements “which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.”

Prior to issuance of the Order, state policy, guidance, and case law required an antidegradation analysis and specific findings, since surface water quality has degraded, in part due to agricultural operations, and degradation would continue under the Order. The antidegradation analysis may be incomplete, including but not limited to the following:

***Completeness of Required Findings of Maximum Benefit to the People of the State and Substantial Evidence to Support Each Finding.*** To support the required finding that the discharge will be consistent with the maximum benefit to the people of the State, there must be a consideration of various factors, including:

- (1) past, present, and probable beneficial uses of the water,
- (2) environmental factors,
- (3) the implementation of feasible alternative treatment or control methods, and
- (4) economic and social costs of the proposed discharge compared to the benefits.

All findings required by the SWRCB’s antidegradation policy cannot be conclusory and must be supported by evidence and analysis in the record.

The fourth consideration – economic and societal costs – must consider both the costs to the discharger (rice growers) and the costs to the affected public (such as increased costs to treat surface water affected by the discharge). Cost savings to the discharger, standing alone, are not adequate justification for allowing degradation.

We found no information in the Order or any of its attachments or appendices describing the cost of drinking water treatment, nor any consideration of these costs or non-monetary costs (such as odor and taste issues) when making the determination of the “maximum benefit to the people of the State” as required by Resolution 68-16, other than a single conclusory statement on page 54 of Attachment A (sixth bullet), which is not supported by any evidence in the record.

The Order, by allowing surface water degradation, could increase concentrations of constituents in surface water. Such degradation could require construction of additions to drinking water utilities’ treatment facilities. Additions could potentially include capital costs for new treatment process facilities and the land for construction of the facilities, and ongoing operational costs. On a life cycle basis (including both capital and operation and maintenance),

using estimates from California-specific water industry cost information, we project that additional treatment could easily cost on the order of tens of millions, approaching hundreds of millions, of dollars per year and potentially rival the total annual cost of the Order (which includes substantial costs unrelated to surface water quality protection). To establish the maximum benefit to the people of the State, these potential costs need to be weighed against the incremental costs of surface water monitoring and management responses that minimize degradation.

To assist the Water Board with the process of developing substantial evidence for its assessment of potential costs to drinking water utilities, we have enclosed cost estimates for drinking water treatment (Attachment 2), based on a recent compilation of annualized capital and operational treatment costs by the Association of California Water Agencies (ACWA) (these data are available on the internet at <http://www.acwa.com/content/water-quality/2013-public-health-goals-report-guidance>). When evaluating cost ranges, the Water Board should recognize that the ACWA compilation includes very large utilities that may have lower unit treatment costs, due to the benefits of economies of scale.

For the above reasons, we believe that the Order's treatment of the antidegradation issue will require significant additional analysis and consideration on the part of the Water Board, in light of the AGUA decision and the other authorities cited above.

***Intergovernmental Coordination.*** State Water Board Guidance for implementation of Resolution 68-16 requires "intergovernmental coordination" with affected local, state, and Federal agencies. The record must document the intergovernmental coordination, which has been defined in Water Board guidance to entail specifically requesting that affected local agencies review proposed actions. Affected downstream drinking water utilities, which are local government agencies, comprise a key group for this required intergovernmental coordination due to their responsibilities for ensuring drinking water quality for their customers.

Given the ongoing nature of the Order, which will involve many decisions that could relate to water quality degradation in future years, intergovernmental coordination should be provided on an ongoing basis in this Order. Below and in the attached mark-up of the draft Order, we propose specific mechanisms to achieve the required coordination that are intended to minimize the burdens on the Water Board and dischargers.

#### **Cooperating Agency Request and Opportunity for Participation**

The Sacramento River drinking water utilities, through the SRSWPP, propose to be included as a cooperating agency in this Order. The participation in the role of coordinating agency that we propose is intended to serve multiple purposes under the Safe Drinking Water Act and California's Porter-Cologne Water Quality Control Act, including the intergovernmental coordination requirements of

State guidance for implementation of Antidegradation requirements. This opportunity for participation is only being requested for the two Long Term ILRP Orders that address the watershed upstream of Sacramento area drinking water utility intakes — this Order and the Rice Order. It is essential for the Sacramento River drinking water utilities, through the SRSWPP, to have the opportunity for sharing information and input to this management process because of the long-term nature of this Order, our specialized expertise and information, and our commitment to provide high quality drinking water for current and future generations.

In accordance with federal and state law we operate a Source Water Protection Program which has identified agriculture as a significant potential contaminating activity. The direct relationship between agricultural discharges and downstream surface water intakes serving a large population that occurs in this watershed is relatively unique in California. We propose our role as a cooperating agency to include coordination on development of the pesticide selection process, development of trigger limits, prioritization of management plans, and periodic review of management plans. We have also requested notification of surface water exceedance reports in cases of drinking water related water quality problems in order to allow us to perform a timely assessment of potential treatment or water quality impacts. If it is not a possibility to be specifically included in the Order as a cooperating agency, we request to be listed as an interested party to receive information on key outcomes and certain submittals, to ensure the opportunity for our information and expertise to be considered during Executive Officer decision making.

### **Availability of Electronic Information**

We request that the Central Valley Water Board make key documents readily available on its Internet website in a timely manner. The scientific information developed as part of this program is essential in the assessment portion of our Source Water Protection program. Internet accessibility reduces requests to staff and increases efficiency of information sharing.

### **Monitoring Program**

It is essential that surface water monitoring programs in the Order be sufficiently robust to ensure detection of degradation in water quality (as required for compliance with Antidegradation requirements) and in order to address both cumulative effects and drinking water-specific water quality issues. The monitoring program must be designed to protect the safety of drinking water (e.g., MUN beneficial use) from the watershed receiving agricultural discharges. This entails a slightly different focus than monitoring focused on solely on aquatic life protection. We discuss below considerations for addressing drinking water in the surface water monitoring program.

### ***Pesticides***

Currently Ongoing Changes In Regulation Of Pesticides In Drinking Water. The United States Environmental Protection Agency (USEPA) and the California Department of Public Health

(CDPH) continually evaluate constituents for new or revised drinking water regulation. This results in periodic updates to our list of constituents of interest. The USEPA's Contaminant Candidate List (CCL) is an example of this process. Every five years the USEPA identifies a list of constituents that will be considered for Regulatory Determination. The current list, CCL3, includes 116 constituents. Chlorate, which is used in the Sacramento Valley, is included on the CCL3 and is projected by USEPA to get a positive Regulatory Determination (meaning that a primary drinking water standard will begin development) and will likely have a new standard in the next five years.

Another USEPA program is the Endocrine Disrupters Screening Program, which is evaluating chemicals for potential non-cancer impacts to the endocrine system. The initial list of constituents was comprised of 67 constituents and a second list was completed with 109 constituents; including, 2,4-D, atrazine, chlorpyrifos, chlorothalonil, diazinon, glyphosate, iprodione, permethrin, propargite, simazine, and trifluralin. This program could potentially lead to new or revised primary drinking water standards if they are determined to be of human health concern.

Current Pesticide Monitoring Priorities for Drinking Water Quality. There are many pesticide active ingredients applied to crops in the Sacramento Valley watershed. Other pesticide-related chemicals, such as degradates and other ingredients in pesticide products, can occasionally have potential to be hazardous to water quality. We agree with the Water Board that a prioritization approach is an appropriate basis for the selection of pesticides for monitoring, though we would prefer if the Order explicitly included the potential for future consideration of monitoring of pesticide degradates and/or other ingredients in pesticide products. We request that the Order be amended to explicitly provide for consultation with drinking water utility scientific experts in the process for selection of pesticides for monitoring because we have special expertise that will assist the Water Board and the third-party implementing the Sacramento Valley Order with identification of pesticide priorities from the drinking water quality and public health protection perspective.

Since 2008, the SRSWPP has used a simple methodology to prioritize pesticides for our attention. The prioritization approach is described in the enclosed memorandum (Attachment 3 - Sacramento River Watershed Pesticide Prioritization Memorandum, October 2013). This approach is relatively similar to the prioritization process previously employed by the Water Board and the California Rice Commission, except that it uses drinking water benchmark values—instead of aquatic life protection values—as the basis of the prioritization process. The prioritization process goes beyond a simple tabular comparison to bring in available scientific information about the highest ranking pesticides. This second step has the effect of winnowing down the priority list to a manageable subset.

The current review has identified several pesticides as potential monitoring priorities, to characterize concentrations of these constituents in the watershed, particularly at times

coinciding with the types of agriculture-related pesticide discharges (storm water and irrigation runoff and drift during application). The SRSWPP would like to request the opportunity to work with the Regional Board to share more information on these pesticides and potential monitoring program modifications that could address these constituents.

**Organic Carbon**

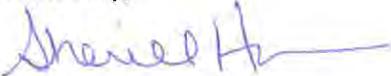
Total organic carbon (TOC) is a surrogate measure of disinfection by-products (DBP) precursor material in water. TOC levels in either source or treated water are used to determine treatment requirements in the Stage 1 Disinfectant/Disinfection By-Product Rule (D/DBP Rule). Disinfectants used in drinking water treatment can react with the naturally-occurring portion of organic carbon in the water to form byproducts, such as trihalomethanes and haloacetic acids, which are both defined by EPA as a carcinogen, and may pose health risks. Organic carbon is recognized in the chemical constituents narrative of the Basin Plan and therefore must be evaluated as part of the Long Term ILRP. Protection of the municipal and domestic beneficial use should include looking at cumulative effects of watershed activities and ensuring that reasonable efforts are made to prevent degradation in the long term.

If there are significant changes made to the Order or its Attachments, we request another public comment period prior to development of a Proposed Order.

Please contact Elissa Callman at 916-808-1424 if you have any questions or would like to discuss our comments. We look forward to working cooperatively with Regional Board staff on the completion of this Order.

Thank you.

Sincerely,



Sherill Huun  
Supervising Engineer

Cc:

Joe Karkoski, Central Valley Water Board  
Jeanne Chilcott, Central Valley Water Board  
Susan Fregien, Central Valley Water Board  
David Duncan, CDPR  
Nan Singhasemanon, CDPR  
KayLynn Newhart, CDPR  
Ali Rezvani, CDPH  
Dave Brent, Director  
Joe Robinson, Senior Deputy City Attorney

Bill Busath, Engineering & Water Resources Manager  
Michael Malone, Operations & Maintenance Manager  
Pravani Vandeyar, Water Quality Superintendent  
Dave Phillips, Water Treatment Superintendent  
Forrest Williams, Sacramento County Department of Water Resources  
Vicki Butler, Sacramento County Department of Water Resources  
Dan Gwaltney, Sacramento County Department of Water Resources  
Dan Mount, City of West Sacramento  
Hubert Lai, EBMUD  
Eileen White, EBMUD  
Jacques DeBra, Woodland-Davis Clean Water Agency  
Bonny Starr, Starr Consulting  
Kelly Moran, TDC Environmental

**List of Attachments for Sacramento River Source Water Protection Program Comments on ILRP Draft Sacramento Valley WDRs**

**Attachment 1:** Specific proposed modifications to the Order, attachments, and appendices. These specific language modifications do not address all of the concerns identified in our comment letter, and are in addition and supplementary to the comments provided in our letter.

**Attachment 2:**

Data from the Association of California Water Agencies that provides ranges of costs for installing and operating various drinking water treatment technologies. These data have been gathered from a variety of sources and represent estimates for different size systems, different sources, and different constituents targeted for reduction by the treatment. Table 1 represents the results of a 2012 ACWA Survey of its member agencies. Table 2 includes data from several agencies that was gathered separately from the survey. Table 3 is treatment cost data from previous ACWA Guidance documents with the costs updated to 2012.

**Attachment 3:**

Sacramento River Watershed Pesticides Prioritization Memorandum, October 2013. To illustrate the use of drinking water-related quality objectives and human health risk values associated with drinking water (e.g., U.S. EPA Human Health Benchmarks for Pesticides, and other U.S. EPA and California Drinking Water Program reference values), we have enclosed a memorandum that uses these drinking water values to prioritize pesticides for potential monitoring. Subsequent to the initial prioritization, the memorandum brings in other available scientific information to develop a final recommended list of pesticides and pesticide degradates for potential near-term monitoring. This memorandum provides an example of the types of expertise that we can share with the Water Board and the third-party implementing the Sacramento Valley Order in the process for selection of pesticides for monitoring. We would like to share information with the Water Board and the third-party about these particular pesticides toward development of a final priority list for near-term monitoring.

**ATTACHMENT 1**  
**Specific Requested Modifications on Draft Sacramento Valley WDRs**  
**and Supporting Documents**

Additions underlined; deletions in ~~strikeout~~

**Waste Discharge Requirements General Order**

**Findings**

Page 1, item 2, first sentence, clarify that land where commercial rice is currently being grown and covered under Rice Order is not included in this Order

This Order applies to owners and operators of irrigated lands within the Sacramento River Watershed, excluding land where commercial rice, species *Oryza sativa*, is currently being grown and is covered under a separate Irrigated Lands Regulatory Program Order.

Page 6, item 22, second to last sentence, clarify to show the necessity of reviewing and updating vulnerability designations

High and low vulnerability area designations ~~will~~ shall be reviewed and updated throughout the implementation of this Order.

Page 10, item 37, second paragraph, last sentence, addition to clarify consistency with antidegradation requirements

The Order will also result in the implementation of BPTC by those discharging to high quality waters and assure that any change in water quality will provide the highest water quality be consistent with maximum benefit to the people of the state.

Page 12, item 44, first and last sentences, clarify that land where rice is grown and covered under Rice Order is not included in this Order

This order excludes all land that is planted to commercial rice (*Oryza sativa*), which is covered by the General Order for Sacramento Valley Rice Growers (R5-2014-XXXX), which authorizes the California Rice Commission to represent rice growers with respect to waste discharge requirements on that land. .... The Order for Rice Growers does not include rice grown for seed or wild rice, so growers of wild rice and rice for seed must obtain regulatory coverage under this or another General Order.

Page 12-13, Coordination and Cooperation with Other Agencies, add new:

*Sacramento River drinking water utilities. The Sacramento River is the source of drinking water for drinking water utilities serving the greater Sacramento area. In accordance with*

California and Federal law, Sacramento River drinking water utilities operate Source Water Protection Programs to assess and protect the Sacramento River – their source of drinking water – from microbiological and chemical contaminants. The Central Valley Water Board will work cooperatively with the Sacramento River drinking water utilities to coordinate and leverage their efforts and to ensure protection of Sacramento River source water quality.

Page 15, item 52, item j), clarify that failures to implement management practices apply to surface water as well

j) Failure to implement applicable management practices, or equivalent practices, identified as protective of surface water or groundwater in the Management Practices Evaluation Report.

#### **IV. Provisions, B. Requirements for Members of the Third-Party Group**

Page 18, item 7, third sentence, clarify that sediment discharge and erosion prevention practices may be implemented by either Individual Plans or Watershed/Subwatershed Plans

Alternatively, as specified in section VII.C.2, Members ~~shall~~ may participate in the development and implementation of a watershed/subwatershed based (or collective) Sediment and Erosion Control Plan that includes collective management practices (e.g., sediment control basin at the bottom of a drainage area), in addition to individual management practices, for the control of sediment.

Page 20, item 20, add two farm management performance standards that were identified in other ILRP Orders for consistency with Order objectives

- d. prevent pollution and nuisance
- e. Achieve and maintain water quality objectives and beneficial uses

#### **IV. Provisions, C. Requirements for the Third-Party Group**

Page 21, item 8.b, third sentence, addition to provide the Water Board with a means to determine the extent of compliance with Grower requirement IV. B.4.

The annual summary must report the total number of growers who attended the outreach events and specify the percentage of all growers with parcels in an area governed by a SQMP/GWMP that attended.

Page 21, item 9, first sentence, modification to clarify that all exceedances or degradation – not solely issues identified by the third-party group or board – must be addressed.

Work cooperatively with the Central Valley Water Board to ensure all Members are providing required information and taking necessary steps to address exceedances or degradation identified by the third-party or board.

## VII. Required Reports and Notices – Member

Page 23, introductory paragraph, third sentence, add text to clarify potential conflict with MRP Order R5-2012-0116

Reports and notices shall be submitted in accordance with section IX, Reporting Provisions, as well as MRP Order R5-2012-0116. If there are any conflicts, the requirements of this Order will prevail.

Page 24, item B.2., modification to ensure accuracy of information in Farm Evaluation while minimizing burden on members:

After 1 March 2018, the Executive Officer may approve ~~reduction in the frequency of updates and submission of optional~~ submittal of certifications of no changes in lieu of annual updates to Farm Evaluations if none of the Member's parcels are in an area governed by a SQMP/GQMP or Source Identification Study, if the third-party demonstrates that year to year changes in Farm Evaluation updates are minimal and the Executive Officer concurs that the practices identified in the Farm Evaluations are consistent with practices that, when properly implemented, will achieve receiving water limitations or best practicable treatment or control, where applicable.

## VIII. Required Reports and Notices – Third Party

Page 29, item C, The SRSWPP submitted formal comments on the Templates for the Eastern San Joaquin WDRs. The final templates have not yet been posted on the Regional Board website. We are incorporating by reference our August 16, 2013 comments on the Templates for the Eastern San Joaquin WDRs previously submitted to the Central Valley Water Board. If there are any proposed modifications to the Templates, we request another opportunity for public review and comment as per MRP R5-2012-0116, section VI.

Page 31, item H. Monitoring Report, modify text to add posting of the final Monitoring Report to the Central Valley Water Board website:

The Central Valley Water Board will post the final Monitoring Report on its website in a timely manner.

Page 32, item I.1, SQMP/GQMP General Requirements, first paragraph, fourth sentence, modify text to add Source Identification Study to public review and comment period:

The Central Valley Water Board will post the proposed SQMP/GQMP, or Source Identification Study, on its website for a public review and comment period.

Page 32, item I. 2, Surface Water Quality Management Plan (SQMP), modify to correct reference to MRP and for compliance with state Antidegradation policy:

A SQMP shall be developed by the third-party where: (1) an applicable water quality objective or applicable water quality trigger limit is exceeded (considering applicable averaging periods) twice in a three year period for the same constituent at a monitoring location (trigger limits are described in Section VIII of the MRP) and irrigated agriculture may cause or contribute to the exceedances; (2) the Basin Plan requires development of a surface water quality management plan for a constituent or constituents discharged by irrigated agriculture, or (3) the Executive Officer determines that irrigated agriculture may be causing or contributing to a trend of degradation of surface water ~~that may threaten applicable Basin Plan beneficial uses.~~

Page 33, item I. 3, modification to provide public review and comment on determination:

At the request of the third-party or upon recommendation by Central Valley Water Board staff, the Executive Officer may determine the development of a SQMP/GQMP is not required. Prior to the Executive Officer's determination, the Central Valley Water Board will post the third-party request or staff recommendation on its website for a review and comment period.

## **IX. Reporting Provisions**

Page 34, item 3, modification to provide the public the ability to know that a report exists:

All reports prepared and submitted to the Executive Officer in accordance with the terms of this Order will be made available for public inspection at the offices of the Central Valley Water Board, except for reports, or portions of such reports, subject to an exemption from public disclosure in accordance with California law and regulations, including the Public Records Act, Water Code section 13267(b)(2), and the California Food and Agriculture Code. A list of all reports submitted will be posted to the Central Valley Water Board website.

## **Attachment A - Information Sheet**

### **IV. Description of the Sacramento River Watershed Area**

Page 6, Table 1, first asterisk, clarify that this excludes commercial rice, not wild rice or seed rice

\*Excluding commercial rice (Oryza sativa) only, wild rice and seed rice are included

## **VI. Grower Participation under the Conditional Waiver and Compliance Enforcement Activities**

Page 12, introductory paragraph, second sentence, clarify this excludes only commercial rice, not wild rice or seed rice

The estimated total irrigated cropland in the Coalition area is 2.36 million acres, or 1.8 million acres excluding commercial rice (Oryza sativa) and dairies.

## **IX. Surface Water and Groundwater Monitoring**

Page 17, item A.1, bullet number one, revise text to correct reference to MRP and for consistency with the Order:

The basic questions to be answered by the updated surface water quality monitoring program are similar to those established under the previous MRP Order (R5-2008-0805):

1. Are receiving waters to which irrigated lands discharge meeting receiving water limitations specified (Section III of the Order)~~applicable water quality objectives and Basin Plan provisions?~~

## **X. Farm Evaluations**

Pages 30 and 31, third paragraph, second sentence, revise to reflect requirement to comply with any requirements of the Order

The farm evaluation is intended to provide the third-party and the Central Valley Water Board with information regarding individual Member implementation of the Order's requirements. Without this information, the board would rely solely on representative surface and groundwater monitoring to determine compliance with ~~water quality objectives~~the Order.

## **XVI. Water Quality Objectives**

Page 38, second and third paragraph of section, revise to include all enforceable California MCLs, including secondary MCLs, which were omitted in the cited code references, and drinking water related narrative objectives:

Water quality objectives that apply to surface water are described in the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (Basin Plan). Applicable water quality objectives include, but are not limited to, (1) the numeric objectives, including the bacteria objective, the chemical constituents objective (includes listed chemicals and state drinking water standards, i.e., maximum contaminant levels (MCLs) promulgated in Title 22 California Code of Regulations (CCR) Division 4, Chapter 15 ~~sections 64431 and 64444~~ that are applicable through the Basin Plan to waters designated as municipal and domestic

supply), dissolved oxygen objectives, pH objectives, and the turbidity objectives, and (2) the narrative objectives, including the biostimulatory substances objective, the chemical constituents objective, the taste and odor objective, the pesticides objective, the sediment objective, and the toxicity objective. The Basin Plan also contains numeric water quality objectives that apply to specifically identified water bodies, such as specific temperature and salinity objectives. Federal water quality criteria that apply to surface water are contained in federal regulations referred to as the California Toxics Rule and the National Toxics Rule. CFR, sections 131.36 and 131.38.

Water quality objectives that apply to groundwater include, but are not limited to, (1) numeric objectives, including the bacteria objective and the chemical constituents objective (includes state MCLs promulgated in Title 22 CCR Division 4, Chapter 15, ~~sections 64431 and 64444~~ and are applicable through the Basin Plan to municipal and domestic supply), and (2) narrative objectives including the chemical constituents, taste and odor, and toxicity objectives.

Page 39, item A, "Implementation of Water Quality Objectives", third paragraph, third sentence, modify to include all cooperating agencies with responsibilities for water quality protection in the Sacramento River watershed in the process to develop trigger limits:

For constituents that are not assigned Basin Plan numeric water quality objectives, Central Valley Water Board staff will develop trigger limits in consultation with the Department of Pesticide Regulation (for pesticides), Sacramento River drinking water utilities, and other agencies as appropriate.

#### **XIX. Statement of policy with respect to maintaining high quality waters in California (State Water Board Resolution 68-16)**

Page 42, This section requires substantial revisions in order to comply with State Water Board Resolution 68-16, as clarified by the AGUA case. Given its direct relevance to this Order, this section should include a summary of the AGUA case.

Pages 42-43, revise second and third paragraphs of section for consistency with antidegradation requirements and available evidence

Second paragraph, second sentence:

Through the process of becoming aware of effective management practices; evaluating their practices; and implementing improved practices; Members are expected to meet the farm management performance measures and, thereby, achieve best practicable treatment or control (BPTC) except in situations where the receiving water body can be demonstrated to not have achieved the applicable water quality objective since 1968, in which case growers are expected to demonstrate best efforts, where applicable.

Third paragraph, second sentence:

If trends in such degradation are identified ~~that could result in impacts to beneficial uses~~, a surface (or groundwater) quality management plan must be prepared by the third-party.

Page 43, item A, first paragraph, fourth sentence, revise text to read:

In such waters, some degradation of water quality may occur without compromising protection of beneficial uses, subject to the analysis and findings required by State Water Board Resolution 68-16.

Page 47, item B, third paragraph, first sentence, clarify conclusion related to waterbody impairments in the Sacramento Valley

~~However, d~~Data collected by the Central Valley Water Board, dischargers, educational institutions, and others demonstrate that many water bodies within the Sacramento River Watershed are already impaired for various constituents that are or could be associated with agricultural activities, however all of those water bodies flow into downstream water bodies which are classified as high-quality waters.

Page 48, item C, third paragraph, revise for consistency with antidegradation requirements:

There is no specific set of technologies, practices, or treatment devices that can be said to achieve BPTC/best efforts universally in the watershed. This Order, therefore, establishes a set of performance standards that must be achieved and an iterative planning approach that will lead to implementation of BPTC/best efforts. The iterative planning approach will be implemented as two distinct processes, 1) establishment of a baseline set of universal farm water quality management standards combined with upfront evaluation, planning and implementation of management practices to attain those goals, and 2) additional planning and implementation measures where degradation trends are observed ~~that threaten to impair a beneficial use~~ or where beneficial uses are impaired (i.e., water quality objectives are not being met).

Page 49, item C.1, addition to list of performance standards consistent with antidegradation requirements:

h. minimize degradation of high-quality waters

Page 54, item D, sixth bullet, revise to reflect consistency with antidegradation requirements and to delete inaccurate statement about costs to water utilities associated with the water quality degradation allowed by this Order:

- The Order prohibits degradation ~~above a water quality objective~~ and establishes representative surface water monitoring and groundwater monitoring programs to determine whether irrigated agricultural waste discharges are in compliance with the

Order's receiving water limitations or causing trends of degradation, local communities should not incur any additional treatment costs associated with the degradation authorized by this Order.

## Table 8

Page 61, line item Farm Evaluations, clarify text to include correct approximate due date for high vulnerability areas

All others, High Vulnerability Areas 1-Mar-2015, updated annually thereafter 1-Mar-2015

Page 61, line item Individual Sediment Plans, revise text to accurately reflect requirements from Order and MRP (sediment plans required for any farm designated through the Farm Evaluations or Sediment Discharge and Erosion Assessment Report)

Individual Sediment Plans, Small Farming Operations, Designated, 1 year from Sediment Report approval

Individual Sediment Plans, Large Farming Operations, Designated, 180 days from Sediment Report approval

Individual Sediment Plans, All Farming Operations Not Designated, not required

## Attachment B - Monitoring and Reporting Program

### III. Surface Water Quality Monitoring Requirements

Page 5, before item A, add monitoring objectives consistent with the WDR and antidegradation requirements:

The objectives of surface water quality monitoring are to determine compliance with the receiving water limitations in Section III of the Waste Discharge Requirements and to determine if a trend of degradation of surface water is occurring. The Executive Officer may require modification of the monitoring program upon determination that the monitoring program does not meet these objectives.

Page 5, item A, third sentence, clarify text to be consistent with requirements

Integration sites are monitored comprehensively on an annual basis, ~~but less frequently~~, to assess broad long term trends.

Page 5, item A.2, fourth sentence, modify text to clarify four distinct sample events and the need to target vulnerable periods during the irrigation season

Integration site monitoring will be conducted four times annually on an ongoing basis, twice following separate storms events in the rainy season and twice during irrigation season, separated to target periods of expected vulnerability to agricultural practices.

Page 8, item C.1.a, modify text to reflect Information Sheet that this option will not apply to the valley floor areas

~~The Central Valley Water Board does not anticipate that~~ This option will not apply to areas on the valley floor due to intensive agricultural land use.

Page 9, item C.1.a, second bullet, modify text to include human health toxicity

- A description of the low threat of pesticide discharges, evaluated based on information such as the types of pesticides applied and their toxicity to aquatic life and human health;

Page 9, item C.1.a, first paragraph, modify text to address exceedances in subwatersheds with reduced monitoring/management practices

An exceedance of any pesticide, toxicity, copper, or nutrient water quality objective or trigger limit will require monitoring of that constituent for an additional two years and may result in the modification or suspension will result in an evaluation of the appropriateness of continuation of this option for the subwatershed where the exceedance occurred.

Page 11, C.3, first paragraph, first sentence, modify to clarify that Water Board staff will lead the pesticide process and reflect coordination with Sacramento River drinking water utilities

The pesticides identified as "to be determined" (TBD) on Table 2 shall be identified as part of a process by Water Board staff that includes input from qualified scientists, including the Sacramento River drinking water utilities, and coordination with the Department of Pesticide Regulation.

Page 11, C.3, first paragraph, we understand that the third-party will apply "evaluation factors" to the list of priority pesticides identified by Regional Board staff to further refine the monitoring program, we request that there is clarification provided in the section to describe what these factors are and how these will be applied (i.e. use in subwatersheds)

Page 16, item C.5, last paragraph, request public notice of Special Project Monitoring proposals by adding sentence:

The Central Valley Water Board will make final Special Project Monitoring proposals, and any revisions, available on their website in a timely manner.

## V. Third-Party Reporting Requirements

Page 27, item A.7.d, request to provide definitions for RLs and MDLs in the document as these are not included in Attachment E – Definitions, Acronyms, and Abbreviations.

Page 28, item C. Annual Monitoring Report, modify text to add posting of the final Annual Monitoring Report (AMR) to the Central Valley Water Board website:

The Central Valley Water Board will post the final AMR on its website in a timely manner.

Page 29, items C. 14 and 15, modify for consistency with antidegradation requirements:

14. Summary of exceedances of water quality objectives/Trigger Limits, and any trends of degradation of surface water occurring during the reporting period and for surface water related pesticide use information;

15. Actions taken to address water quality exceedances and any trends of degradation of surface water that have occurred, including but not limited to, revised or additional management practices implemented;

Page 30, item C, Report Component No. 14 – Summary of Exceedances, first sentence, clarify that reporting for item 14 must address antidegradation requirements:

A summary of the exceedances of water quality objectives or triggers that have occurred during the monitoring period and identification of any trends of degradation of surface water is required in the Monitoring Report.

Page 30, item C, Report Component No. 16 – Evaluation of Monitoring Data, second sentence, clarify that addressing deficiencies for item 16 could include more considerations in addition to sampling locations

As part of this evaluation, the third-party must analyze all readily available monitoring data that meet program quality assurance requirements to determine deficiencies in monitoring for discharges from irrigated agricultural lands and whether additional sampling locations information ~~is~~ is are needed, such as sampling locations, sample frequency, or constituent list.

Page 32, item D, top of page, first paragraph, modify text to include drinking water notification of exceedance report preparation in case of drinking water related water quality problems to allow for timely notice of potential cause for impact to water treatment:

Upon determining an exceedance, the third-party shall send the Exceedance Report by email to the third-party's designated Central Valley Water Board staff contact by the next business day. The third-party or Central Valley Water Board staff shall notify the Sacramento River drinking water utilities of exceedances on drinking water related water quality problems within 7 days of the notification from the third-party.

## VI. Templates

Page 32, The SRSWPP refers to our previous comment on the Order, Section VIII.C.

## VIII. Watershed/Subwatershed Based Sediment and Erosion Control Plans

Page 33, first bullet item, modify text to show that the Sediment and Erosion Control Plan must be installed, operational, and meeting water quality objectives in accordance with Provision XII of the Order

- 1) A time schedule for implementation and/or installation of collective management practices to ensure compliance with water quality objectives

## IX. Water Quality Triggers for Development of Management Plans

Page 33, first and second paragraphs, modify to clarify meaning of Table 5 and to specify coordination with agencies with regulatory responsibilities related to discharges in the Sacramento River watershed:

First paragraph, last sentence:

Table 5 of this MRP provides a non-comprehensive lists of Basin Plan numeric water quality objectives and NTR/CTR criteria for constituents of concern that may be discharged by Members.

Second paragraph, second sentence:

Trigger limits will be developed by the Central Valley Water Board staff through a process involving coordination with the Department of Pesticide Regulation (for pesticides), Sacramento River drinking water utilities, and stakeholder input.

## Appendix MRP-1 – Management Plan Requirements

### I. Management Plan Development and Required Components

Page 2, fourth paragraph, next to last sentence, provide for coordination with agencies with regulatory responsibilities related to discharges in the Sacramento River watershed when establishing priorities for the order of multiple SQMP/GWMPs:

After consultation with Department of Pesticide Regulation (for pesticides) and Sacramento River drinking water utilities, tThe Executive Officer may approve or require changes be made to the SQMP/GQMP priority list.

Page 5, item D.1, first paragraph, clarify requirements of the Order

The monitoring system must be designed to measure effectiveness at achieving the goals and objectives of the SQMP or GQMP and capable of determining whether management practice changes made in response to the management plan are effective in ending the water quality problem and can comply with the terms of the Order.

Page 5, item D.2, bullets a. and b., clarify requirement for downstream monitoring and reference to the MRP

- a. The location(s) of the monitoring site and schedule (including frequencies) for monitoring should be chosen to be representative of the COC discharge to the watershed. Where the water quality problem being addressed occurs downstream of the discharge, monitoring should include at least one representative downstream location to determine the effectiveness of the SQMP in addressing the water quality problem that is the basis for the SQMP.
- b. Surface water monitoring data must be submitted electronically per the requirements given in section III.~~ED~~ of the MRP.

Page 7, item G, first paragraph, clarify Source Identification Study is part of a Management Plan

Should the third-party conduct a Source Identification Study as part of the Management Plan to comply with this Order, the third-party must first receive approval from the Executive Officer.

## II. Approval and Review of the Management Plan

Page 7, item a, first sentence, clarify that Source Identification Studies are also subject to review and comment:

- a. Water quality management plan approval – Prior to Executive Officer approval of any management plan (including a Source Identification Study), the Central Valley Water Board will post the draft management plan or Source Identification Study on its website for a review and comment period.

Page 7, item b, second sentence, specifically list the Sacramento River drinking water utilities as an interested party:

Central Valley Water Board staff will meet with the third-party and other interested parties, including Sacramento River drinking water utilities, to evaluate the performance of management plans.

### **III. Management Plan Completion**

Pages 8 and 9, item a, provide that a minimum of three years of monitoring data are required for all determinations of completion of a management plan:

a) Demonstration through evaluation of monitoring data that the water quality problem is no longer occurring (i.e., 3 or more years with no exceedances during the times of the year when previous exceedances occurred) or demonstrated compliance with the Order's surface and groundwater receiving water limitations for a minimum of 3 consecutive years.

#### **Appendix MRP-3**

This document is an excellent presentation of information related to the wide variety of conditions in the SVWQC's subwatershed groups. There is a large amount of information to support the selection of representative monitoring sites. We would like to suggest a few modifications to the document to further support its purpose. Also, we believe that the integration sites should be included in this document to support why they serve to represent the overall activities covered under this Order and will provide long-term assessment information.

1. Add an introductory paragraph which clarifies and confirms the type of information used as the basis for selecting representative sites (i.e., crop type, agricultural practices, hydrologic connection of waterbodies).
2. Show the representative monitoring sites on the subwatershed maps (Figures 2-12). This will allow for easy identification of the hydrologic connection/representativeness of the monitoring sites selected.
3. Complete identification of representative sites for indicated subwatersheds.
4. Add discussion regarding the selection of the integration sites. This should include a map showing which portions of the area included in the Order are tributary to each site and a description of the percentages. This will ensure substantial representation of all the lands included in the Order.

#### **Attachment E – Definitions, Acronyms & Abbreviations**

Page 2, item 8, revise to add trigger limits, consistent with use of this term in Attachments A and MRP-1:

8. Exceedance - For the purposes of this Order, an exceedance is a reading using a field instrument or detection by a California State-certified analytical laboratory where the detected result indicates an impact to the beneficial use of the receiving water when compared to a water quality standard or trigger limit for the parameter or constituent. Exceedances will be determined based on available data and application of the appropriate averaging period. The appropriate averaging period may be defined in the Basin Plan, as part of the water quality criteria established by the U.S. EPA, or as part of the water quality criteria or trigger limit being used interpret a narrative water quality objective. If averaging

periods are not defined as part of the water quality objective, trigger limit, or the water quality criteria being used, then the Executive Officer may use its best professional judgment to determine an appropriate period.

Page 4, item 22, this definition has been changed by adding the option of as determined by the Executive Officer. There is no process or basis provided for this revised definition in the Order or its Attachments, and we request that this information be developed and included in the Order or deleted from this definition.

Page 7, item 49, clarify that pesticide discharges known to occur from agricultural fields are included in the definition of waste discharge:

49. Waste discharges from irrigated lands – The discharge or release of waste to surface water or groundwater. Waste discharges to surface water include, but are not limited to, irrigation return flows, tailwater, drainage water, subsurface (tile) drains, stormwater runoff flowing from irrigated lands, aerial drift, seepage through dikes, and overspraying of pesticides. Waste can be discharged to groundwater through pathways including, but not limited to, percolation of irrigation or storm water through the subsurface, backflow of waste into wells (e.g., backflow during chemigation), discharges into unprotected wells and dry wells, and leaching of waste from tailwater ponds or sedimentation basins to groundwater.

A discharge of waste subject to the Order is one that could directly or indirectly reach waters of the state, which includes both surface waters and groundwaters. Direct discharges may include, for example, discharges directly from piping, tile drains, wells, ditches or sheet flow to waters of the state, or seepage or percolation of wastes through the soil to surface water or groundwater. Indirect discharges may include aerial drift or discharges from one parcel to another parcel and then to waters of the state. See also the definition for “waste”.

Page 7, item 53, revise for consistency with Receiving Water Limitations and antidegradation requirements:

53. Water quality problem – Exceedance of an applicable water quality objective, condition of pollution or nuisance, impairment of a Basin Plan beneficial use, or a trend of degradation of surface waters or ground water~~that may threaten applicable Basin Plan beneficial uses.~~

**Attachment 2 to Sacramento River Source Water Protection Program Comments  
on ILRP Administrative Draft Sacramento Valley WDRs  
October 10, 2013**

**ATTACHMENT NO. 3  
Table 1  
Reference: 2012 ACWA PHG Survey**

**COST ESTIMATES FOR TREATMENT TECHNOLOGIES  
(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)**

<b>No.</b>	<b>Treatment Technology</b>	<b>Source of Information</b>	<b>Estimated Unit Cost 2012 ACWA Survey (\$/1,000 gallons treated)</b>
1	Ion Exchange	Coachella Valley WD, for GW, to reduce Arsenic concentrations. 2011 costs.	1.84
2	Ion Exchange	City of Riverside Public Utilities, for GW, for Perchlorate treatment.	0.89
3	Ion Exchange	Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO <sub>3</sub> . Design finished water concentration: 45 mg/L NO <sub>3</sub> . Does not include concentrate disposal or land cost.	0.67
4	Granular Activated Carbon	City of Riverside Public Utilities, GW sources, for TCE, DBCP (VOC, SOC) treatment.	0.45
5	Granular Activated Carbon	Carollo Engineers, anonymous utility, 2012 costs for treating SW source for TTHMs. Design source water concentration: 0.135 mg/L. Design finished water concentration: 0.07 mg/L. Does not include concentrate disposal or land cost.	0.32
6	Granular Activated Carbon, Liquid Phase	LADWP, Liquid Phase GAC treatment at Tujung Well field. Costs for treating 2 wells. Treatment for 1,1 DCE (VOC). 2011-2012 costs.	1.36
7	Reverse Osmosis	Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO <sub>3</sub> . Design finished water concentration: 45 mg/L NO <sub>3</sub> . Does not include concentrate disposal or land cost.	0.72
8	Packed Tower Aeration	City of Monrovia, treatment to reduce TCE, PCE concentrations. 2011-12 costs.	0.39
9	Ozonation+ Chemical addition	SCVWD, STWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA concentrations. 2009-2012 costs.	0.08
10	Ozonation+ Chemical addition	SCVWD, PWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA concentrations, 2009-2012 costs.	0.18

**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**  
**(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)**

<b>No.</b>	<b>Treatment Technology</b>	<b>Source of Information</b>	<b>Estimated Unit Cost 2012 ACWA Survey (\$/1,000 gallons treated)</b>
11	Coagulation/Filtration	Soquel WD, treatment to reduce manganese concentrations in GW. 2011 costs.	0.68
12	Coagulation/Filtration Optimization	San Diego WA, costs to reduce THM/Bromate, Turbidity concentrations, raw SW a blend of State Water Project water and Colorado River water, treated at Twin Oaks Valley WTP.	0.77
13	Blending (Well)	Rancho California WD, GW blending well, 1150 gpm, to reduce fluoride concentrations.	0.64
14	Blending (Wells)	Rancho California WD, GW blending wells, to reduce arsenic concentrations, 2012 costs.	0.52
15	Blending	Rancho California WD, using MWD water to blend with GW to reduce arsenic concentrations. 2012 costs.	0.62
16	Corrosion Inhibition	Atascadero Mutual WC, corrosion inhibitor addition to control aggressive water. 2011 costs.	0.08

**ATTACHMENT NO. 3**  
**Table 2**  
**Reference: Other Agencies**

**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**  
**(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)**

<b>No.</b>	<b>Treatment Technology</b>	<b>Source of Information</b>	<b>Estimated Unit Cost 2012 Other References (\$/1,000 gallons treated)</b>
1	Reduction - Coagulation- Filtration	Reference: February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.	\$1.47 - \$9.23
2	IX - Weak Base Anion Resin	Reference: February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.	\$1.50 - \$6.29
3	IX	Golden State Water Co., IX w/disposable resin, 1 MGD, Perchlorate removal, built in 2010.	\$0.46
4	IX	Golden State Water Co., IX w/disposable resin, 1000 gpm, perchlorate removal (Proposed; O&M estimated).	\$1.00
5	IX	Golden State Water Co., IX with brine regeneration, 500 gpm for Selenium removal, built in 2007.	\$6.57
6	GFO/Adsorption	Golden State Water Co., Granular Ferric Oxide Resin, Arsenic removal, 600 gpm, 2 facilities, built in 2006.	\$1.72 - \$1.84
7	RO	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. RO cost to reduce 800 ppm TDS, 150 ppm Nitrate (as NO <sub>3</sub> ); approx. 7 mgd.	\$2.25
8	IX	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. IX cost to reduce 150 ppm Nitrate (as NO <sub>3</sub> ); approx. 2.6 mgd.	\$1.25
9	Packed Tower Aeration	Reference: Inland Empire Utilities Agency : Chino Basin Desalter. PTA-VOC air stripping, typical treated flow of approx. 1.6 mgd.	\$0.38

10	IX	Reference: West Valley WD Report, for Water Recycling Funding Program, for 2.88 mgd treatment facility. IX to remove Perchlorate, Perchlorate levels 6-10 ppb. 2008 costs.	\$0.52 - \$0.74
11	Coagulation Filtration	Reference: West Valley WD, includes capital, O&M costs for 2.88 mgd treatment facility- Layne Christensen packaged coagulation Arsenic removal system. 2009-2012 costs.	\$0.34
12	FBR	Reference: West Valley WD/Envirogen design data for the O&M + actual capitol costs, 2.88 mgd fluidized bed reactor (FBR) treatment system, Perchlorate and Nitrate removal, followed by multimedia filtration & chlorination, 2012. NOTE: The capitol cost for the treatment facility for the first 2,000 gpm is \$23 million annualized over 20 years with ability to expand to 4,000 gpm with minimal costs in the future. \$17 million funded through state and federal grants with the remainder funded by WVWD and the City of Rialto.	\$1.55 - \$1.63

**ATTACHMENT NO. 3**

**Table 3**

**Reference: 2010 ACWA Cost of Treatment Table, Costs Revised for 2012**

**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**

**(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)**

<b>No.</b>	<b>Treatment Technology</b>	<b>Source of Information</b>	<b>Estimated 2012* Unit Cost (\$/1,000 gallons treated)</b>
1	Granular Activated Carbon	Reference: Malcolm Pirnie estimate for California Urban Water Agencies, large surface water treatment plants treating water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, 1998	0.53-1.00
2	Granular Activated Carbon	Reference: Carollo Engineers, estimate for VOC treatment (PCE), 95% removal of PCE, Oct. 1994,1900 gpm design capacity	0.24
3	Granular Activated Carbon	Reference: Carollo Engineers, est. for a large No. Calif. surf. water treatment plant ( 90 mgd capacity) treating water from the State Water Project, to reduce THM precursors, ENR construction cost index = 6262 (San Francisco area) - 1992	1.16
4	Granular Activated Carbon	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility for VOC and SOC removal by GAC, 1990	0.45-0.66
5	Granular Activated Carbon	Reference: Southern California Water Co. - actual data for "rented" GAC to remove VOCs (1,1-DCE), 1.5 mgd capacity facility, 1998	2.08
6	Granular Activated Carbon	Reference: Southern California Water Co. - actual data for permanent GAC to remove VOCs (TCE), 2.16 mgd plant capacity, 1998	1.35
7	Reverse Osmosis	Reference: Malcolm Pirnie estimate for California Urban Water Agencies, large surface water treatment plants treating water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, 1998	1.56-2.99
8	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 1.0 mgd plant operated at 40% of design flow, high brine line cost, May 1991	3.69
9	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 1.0 mgd plant operated at 100% of design flow, high brine line cost, May 1991	2.27
10	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 10.0 mgd plant operated at 40% of design flow, high brine line cost, May 1991	2.46
11	Reverse Osmosis	Reference: Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 10.0 mgd plant operated at 100% of design flow, high brine line cost, May 1991	1.90
12	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 40% of design capacity, Oct. 1991	6.17

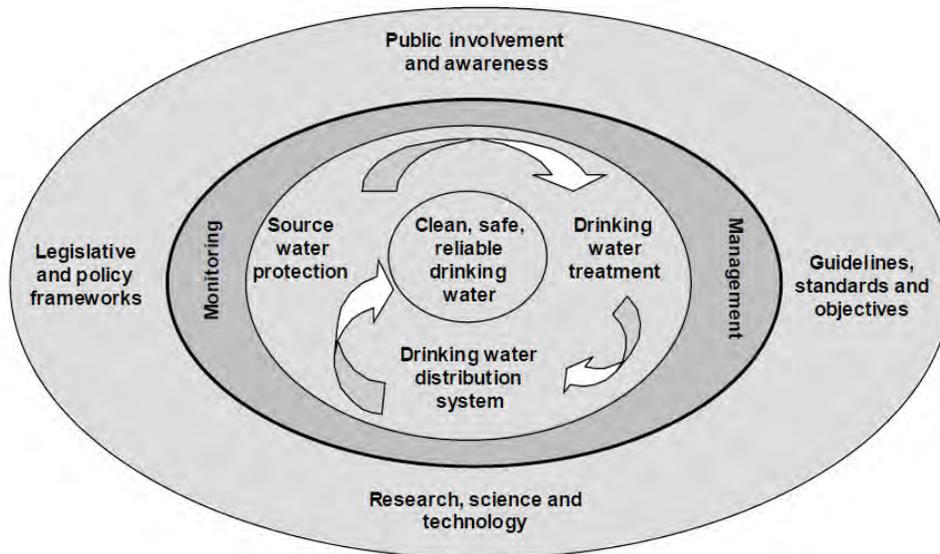
**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**  
(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

No.	Treatment Technology	Source of Information	Estimated 2012* Unit Cost (\$/1,000 gallons treated)
13	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 100% of design capacity, Oct. 1991	3.64
14	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 10.0 mgd plant operated at 40% of design capacity, Oct. 1991	2.73
15	Reverse Osmosis	Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 10.0 mgd plant operated at 100% of design capacity, Oct. 1991	1.69
16	Reverse Osmosis	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility with RO to remove nitrate, 1990	1.70-2.99
17	Packed Tower Aeration	Reference: Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 1.4 mgd facility operating at 40% of design capacity, Oct. 1991	0.98
18	Packed Tower Aeration	Reference: Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 14.0 mgd facility operating at 40% of design capacity, Oct. 1991	0.52
19	Packed Tower Aeration	Reference: Carollo Engineers, estimate for VOC treatment (PCE) by packed tower aeration, without off-gas treatment, O&M costs based on operation during 329 days/year at 10% downtime, 16 hr/day air stripping operation, 1900 gpm design capacity, Oct. 1994	0.26
20	Packed Tower Aeration	Reference: Carollo Engineers, for PCE treatment by Ecolo-Flo Enviro-Tower air stripping, without off-gas treatment, O&M costs based on operation during 329 days/year at 10% downtime, 16 hr/day air stripping operation, 1900 gpm design capacity, Oct. 1994	0.27
21	Packed Tower Aeration	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility - packed tower aeration for VOC and radon removal, 1990	0.42-0.69
22	Advanced Oxidation Processes	Reference: Carollo Engineers, estimate for VOC treatment (PCE) by UV Light, Ozone, Hydrogen Peroxide, O&M costs based on operation during 329 days/year at 10% downtime, 24 hr/day AOP operation, 1900 gpm capacity, Oct. 1994	0.51
23	Ozonation	Reference: Malcolm Pirnie estimate for CUWA, large surface water treatment plants using ozone to treat water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, <i>Cryptosporidium</i> inactivation requirements, 1998	0.12-0.24
24	Ion Exchange	Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility - ion exchange to remove nitrate, 1990	0.57-0.74

Note: \*Costs were adjusted from date of original estimates to present, where appropriate, using Engineering News Record (ENR) building costs index (20-city average) from Dec 2012.



**Figure 1. Multi-Barrier Approach**



Source: Canadian Council of Ministers of the Environment (2002). *From Source to Tap*.

Pesticides are of interest to Sacramento River drinking water utilities because over the last two decades, on many occasions pesticides have been detected at drinking water treatment plant intakes. The efforts of the rice industry and regulatory agencies through the Rice Pesticide Program have resulted in significant reductions in frequency and detected levels of rice pesticides in the Sacramento River. However, the historic presence of pesticides at plant intakes demonstrates that there are pathways for water pollutants in agricultural discharges to reach downstream water supplies.

For pesticides, source water protection efforts are focused on working within the existing regulatory and management programs that manage the various potential contaminating activities, such as the California Department of Pesticide Regulation (DPR), the Central Valley Regional Water Quality Control Board (Water Board), and the U.S. EPA Office of Pesticide Programs.

### **Drinking Water Standards**

There are numerous pesticides currently regulated in treated drinking water either by the U.S. EPA or by the DPH (see <http://water.epa.gov/drink/contaminants/index.cfm> and <http://www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx>). Note that California has its own drinking water standards for some constituents and that in California, both primary and secondary Maximum Contaminant Levels are enforceable.

In addition to drinking water standards, DPH has developed Notification Levels for additional constituents of interest (DPH 2012). These are health based levels that require action by the water utility, ranging from public notification to treatment, if found above the Notification Levels. Similar action is required for a related set of values known as “archived advisory levels” (DPH 2012).

U.S. EPA has also developed Health Advisories for other constituents in drinking water that are not currently regulated. These are non-enforceable levels which can provide guidance to water systems on the potential risk to public health. The Health Advisories include acute and chronic risk for cancer and non-cancer health effects. U.S. EPA has conveniently compiled Federal drinking water standards, including health advisories, into a reference handbook (U.S. EPA 2012).

Drinking water standards are not static. The U.S. EPA Office of Groundwater and Drinking Water has several programs in place to review the current drinking water standards (called the Six Year Review) as well as identify new constituents which may require a new drinking water standard (the Contaminant Candidate List). Another USEPA program that may affect drinking water standards is the Endocrine Disruptors Screening Program, which is evaluating chemicals for potential non-cancer impacts to the endocrine system. This program could potentially lead to new or revised primary drinking water standards if they are determined to be of human health concern.

### **Drinking Water Benchmarks**

For those pesticides without drinking water standards, U.S. EPA has developed Human Health Benchmarks for use by the states in water quality management. These values, which are periodically updated, are available on the Internet (U.S. EPA 2013). U.S. EPA recently started development of cancer risk benchmarks, the first of which were published in August 2013.

### **Pesticide Prioritization Methodology**

The SRSWPP pesticide prioritization methodology, known as the Risk Screening Ratio method, involves the following steps:

1. Obtain Sacramento River watershed pesticide use data from DPR (DPR 2013a). (The most recent data currently available are from calendar year 2011). For purposes of this prioritization, the Sacramento River watershed was defined to include the counties discharging to the Sacramento River and its tributaries upstream of the Sacramento River water utility drinking water intakes: Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, Tehama, Yolo, and Yuba. To simplify the assessment, it was assumed that the amount of pesticide use in the portions of these counties that are not within the Sacramento River watershed is not large compared to the total amount of pesticide use within the watershed. Rice pesticides were removed from the data set as they are addressed in a separate evaluation.
2. Obtain human health impact reference values for each pesticide. Use standards where available (U.S. EPA 2012; DPH 2012); otherwise, use U.S. EPA Human Health Benchmarks (U.S. EPA 2013). (Care must be taken in selection of these values, as available benchmark values are often not comparable because they are based on varying levels of acceptable human health risk, and newer values may reflect important new scientific information.)

3. Calculate the ratio of quantity of each pesticide used, by sector, to the human health impact benchmark values. Rank these “Risk Screening Ratios” from largest to smallest.
4. For those pesticides with the highest Risk Screening Ratios, review other available information about the pesticide, such as the pesticide’s environmental fate, available water quality monitoring data, and U.S. EPA modeling results to determine if available information is sufficient to establish a final priority level. Water quality monitoring data can provide the most valuable input and can come from DPR, watershed-wide monitoring programs, scientific researchers, government agencies like USGS, the Water Board, water utilities, and participants in regulatory programs like the Water Board Irrigated Lands Regulatory Program. It is important to verify the data quality, the detection limits (which may be higher than benchmarks), and that the data was collected in a manner and timeframe consistent with pesticide use patterns.

Ingredients other than the pesticide active ingredient in products and adjuvants (whose chemical identities are not disclosed to the public) were excluded from this prioritization process, as were oils, clays, polymers, sulfur, solvents, biopesticides, mineral salts, and chemicals applied in quantities less than 3,500 pounds (non-carcinogens) or 1,000 pounds (carcinogens and other chemicals with relatively low human health reference values).

Four chemicals with usage greater than 3,500 pounds were not evaluated due to the lack of an available human health impact reference value: Dazomet, Metconazole, Maleic hydrazide potassium salt, and Diglycolamine salt of 3,6-Dichloro-o-anisic acid.

### **Sacramento River Watershed Pesticide Non-Rice Pesticide Prioritization 2013**

Table 1 lists the 25 highest-ranking non-rice pesticides (on the basis of the risk ratio) in the watershed in 2011. Table 1 provides the selected human health drinking water reference values for each pesticide. A risk-screening ratio has been calculated for each pesticide. The table is sorted by the risk-screening ratio to provide the initial prioritization list.

Table 2 presents the second portion of the review, which brings in available scientific information (primarily water quality monitoring data from DPR and the Irrigated Lands Program) for the twelve highest ranked pesticides. On the basis of this information, Table 2 includes recommendations for potential next steps for consideration by the SRSWPP. The highlighted rows indicate pesticides for which it is recommended that the SRSWPP request Water Board staff and the coalition of growers covered by the Sacramento River Watershed WDRs—the Sacramento Valley Water Quality Coalition (SVWQC)—evaluate the pesticide and include monitoring of that pesticide in the Irrigated Lands Regulatory Program (ILRP) Sacramento River Watershed Waste Discharge Requirements (WDRs) monitoring program to ensure that management practices provide sufficient protections for drinking water quality.

Though not included in Table 2, consideration should be given to monitoring of chlorothalonil under the ILRP Sacramento River Watershed WDRs. The risk-screening ratio for chlorothalonil was based on a DPH Health Advisory value targeting a  $10^{-4}$  cancer risk. If a  $10^{-6}$  cancer risk had been the target (and the benchmark adjusted

accordingly), chlorothalonil would have been the second highest-ranking pesticide. Chlorothalonil use has increased significantly over the past ten years, from about 76,000 pounds in 2002 to about 242,000 pounds in 2011 (DPR 2013a). Chlorothalonil products contain multiple trace contaminants, including dioxins (primary MCL  $3 \times 10^{-8}$  µg/L), that contribute to the risks of this pesticide. Since the contaminants—particularly dioxins—are challenging and costly to measure, monitoring of these contaminants should only be considered after first evaluating chlorothalonil monitoring data. The SRSWPP should consider conducting additional review of chlorothalonil to determine whether to recommend further evaluation by Water Board staff and the SVWQC.

Pesticide priorities have changed with each of the three Sacramento River watershed prioritizations conducted for the SRSWPP on non-rice pesticides. This current review generated the most significant changes, largely due to the new information about pesticide cancer risk from U.S. EPA (U.S. EPA 2013). Changes also occurred in response to changes in pesticide use, new monitoring data, and other new scientific information about pesticide hazards. Recognizing that regulatory actions like U.S. EPA's 15-year cycle of Registration Reviews, new pesticide products, and a backlog of U.S. EPA and U.S. Fish and Wildlife Service pesticide "consultations" under the Endangered Species Act will continue to have significant effects on Sacramento Valley pesticide usage, and that U.S. EPA plans to continue to update and expand its human health benchmarks for pesticides, the source water protection program will have best information if it updates this prioritization every 2-3 years.

### **Summary of Recommendations**

- Request Water Board staff and the SVWQC evaluate 1,3 dichloropropene, metam sodium, and metam potassium and include 1,3-dichloropropene, methyl isothiocyanate (MITC),<sup>1</sup> oxyfluorfen, oryzalin, and simazine in the pesticide monitoring to be conducted under the ILRP Sacramento River Watershed WDRs to ensure that management practices provide sufficient protections for drinking water quality.
- Request that Water Board staff and SVWQC evaluate mancozeb, ethalfluralin, and iprodione during planning for the pesticides monitoring under the ILRP Sacramento River Watershed WDRs to determine if mancozeb, ethylenethiourea,<sup>2</sup> ethalfluralin, and/or iprodione monitoring is warranted in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections for drinking water quality.
- Consider conducting additional review of chlorothalonil and propargite to determine whether to recommend further evaluation by Water Board staff and the SVWQC.
- Request that the Water Board use the most recent U.S. EPA Human Health Benchmark for Pesticides to evaluate monitoring data (e.g., as water quality triggers for development of management plans) under the ILRP Sacramento River Watershed WDRs for those pesticides without drinking water standards.
- Update this Sacramento River watershed pesticide prioritization in 2015 or 2016.

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<sup>1</sup> The quickly formed and toxic degradate of both metam sodium and metam potassium.

<sup>2</sup> The toxic degradate of mancozeb.

**Table 1. Initial Sacramento River Watershed Non-Rice Pesticide Prioritization**

Pesticide	2011 Use (lb. a.i.)	Drinking Water Reference Value (µg/L)	Type of Reference Value	2011 Risk Ratio *	Priority Ranking
1,3-Dichloropropene	734,910	0.5	Enforceable Primary DWS	1,469,819	1
Metam Sodium (Sodium N-Methyl dithiocarbamate)	122,331	0.19 (N-Methyl dithiocarbamate)	Archived Advisory Level	643,850	2
Mancozeb	344,545	0.6	HHBP – Cancer (10 <sup>-6</sup> risk)	574,241	3
Potassium N-Methyl dithiocarbamate	89,991	0.19 (N-Methyl dithiocarbamate)	Archived Advisory Level	473,637	4
Oxyfluorfen	98,683	0.5	HHBP – Cancer (10 <sup>-6</sup> risk)	197,365	5
Ethalfuralin	26,306	0.4	HHBP – Cancer (10 <sup>-6</sup> risk)	65,765	6
Chlorpyrifos	118,229	2	Health Advisory - Lifetime	59,115	7
Oryzalin	146,766	5	HHBP – Cancer (10 <sup>-6</sup> risk)	29,353	8
Iprodione	21,130	0.8	HHBP – Cancer (10 <sup>-6</sup> risk)	26,412	9
Diazinon	18,047	1.2	Notification Level	15,039	10
Propargite	13,232	1	HHBP – Cancer (10 <sup>-6</sup> risk)	13,232	11
Simazine	52,836	4	Enforceable Primary DWS	13,209	12
Chloropicrin	523,588	50	Archived Advisory Level	10,472	13
Methyl Bromide	972,597	140	HHBP - Chronic	6,947	14
Trifluralin	40,534	10	Health Advisory - Lifetime	4,053	15
Paraquat Dichloride	105,376	30	Health Advisory - Lifetime	3,513	16
Ziram	316,611	112	HHBP - Chronic	2,827	17
Clofentezine	2,434	0.9	HHBP – Cancer (10 <sup>-6</sup> risk)	2,704	18
Glufosinate-Ammonium	97,528	42	HHBP - Chronic	2,322	19
Permethrin	7,092	4	HHBP – Cancer (10 <sup>-6</sup> risk)	1,773	20
Chlorothalonil**	242,454	150	Health Advisory - 10 <sup>-4</sup> cancer risk	1,616	21
Oxytetracycline, Calcium Complex	5,910	4	HHBP - Chronic	1,478	22
MCPA, Dimethylamine Salt	36,717	30	Health Advisory - Lifetime	1,224	23
2,4-D, Dimethylamine Salt	84,314	70 (2,4-D)	Enforceable Primary DWS	1,204	24
Methyl Parathion	2,515	2	Notification Level	1,204	25

Sources: DPR Pesticide Use Reporting Database (DPR 2013a). Total quantity of pesticide active ingredient (a.i.) applications reporting in 2011 as used on crops other than rice in Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, Tehama, Yolo, and Yuba Counties.

DWS = California or U.S. EPA established Drinking Water Standard. HHBP = U.S. EPA Human Health Benchmark for Pesticides (U.S. EPA 2013); Health Advisory (U.S. EPA 2012); Notification Level (DPH 2012); Archived Advisory Level prepared for the Central Valley Water Board (DPH 2012).

\*Ratio of use quantity to drinking water benchmark. \*\*Does not include toxic impurities, including dioxins, furans, and hexachlorobenzene.

**Table 2. Evaluation of Twelve Highest Ranking Non-Rice Pesticides**

Pesticide	Drinking Water Benchmark (µg/L)	Evaluation	Recommendation
1,3-Dichloropropene	0.5 (California has a non-enforceable Public Health Goal of 0.2)	No monitoring data with appropriate timing and detection limits were identified for the Sacramento River watershed (DPR 2013b). Use has increased significantly over the past ten years, from about 220,000 pounds in 2002 to about 735,000 pounds in 2011 (DPR 2013a). Although it has generally been assumed that this volatile pesticide would not occur in runoff, a recent DPR review found experimental data indicating that the fraction occurring in runoff, though very small, could cause surface water concentrations significantly greater than 0.5 µg/L (Vidrio 2012, p. 10-11 and 15-16).	Request that Water Board staff and SVWQC evaluate 1,3-dichloropropene and add monitoring of 1,3-dichloropropene during vulnerable periods, such as storm events during and immediately after the application period in the monitoring to be conducted under the ILRP Sacramento River Watershed WDRs.
Metam Sodium (Sodium N-Methyl dithiocarbamate)	0.19 (N-Methyl dithiocarbamate)	Salt of N-Methyl dithiocarbamate, which dissociates and then quickly degrades in water to methyl isothiocyanate (MITC), a more toxic chemical that is the principal component of metam sodium's fumigation functionality. No monitoring data for N-Methyl dithiocarbamate or MITC were identified for the Sacramento River watershed or elsewhere in California (DPR 2013b).  Although it has generally been assumed that this volatile pesticide would not occur in runoff, a recent EPA review used numerical modeling to estimate that the fraction occurring in runoff, though very small, could cause surface water concentrations significantly greater than 0.19 µg/L (U.S. EPA 2010).	Request that Water Board staff and SVWQC evaluate metam sodium and metam potassium (see below) and add monitoring of MITC during vulnerable periods, such as storm events during and immediately after the application period, be included in the monitoring to be conducted under the ILRP Sacramento River Watershed WDRs.
Mancozeb	0.6	No monitoring data were identified for either mancozeb or its toxic degradate ethylenethiourea for the Sacramento River watershed (DPR 2013b). Use has increased significantly over the past ten years from about 47,000 pounds in 2002 to about 345,000 pounds in 2011 (DPR 2013a).  U.S. EPA's most recent risk assessment concluded that under the scenarios it evaluated, mancozeb would decompose to ethylenethiourea in water prior to reaching drinking water sources, where levels were not estimated to be of concern (U.S. EPA 2005). It is unclear whether this assessment accounted for the cancer risks that are the basis of the drinking water benchmark.	Request that Water Board staff and SVWQC evaluate mancozeb during planning for the pesticides monitoring under the ILRP Sacramento River Watershed WDRs. Environmental fate, modeling, and monitoring studies (if available) should be evaluated in light of the new EPA cancer risk benchmark, current use patterns, and the most vulnerable time periods to determine if mancozeb and or ethylenethiourea monitoring is warranted in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections.

**Table 2. Evaluation of Twelve Highest Ranking Non-Rice Pesticides (Continued)**

Pesticide	Drinking Water Benchmark (µg/L)	Evaluation	Recommendation
Potassium N-Methyl dithiocarbamate	0.19 (N-Methyl dithiocarbamate)	Salt of N-Methyl dithiocarbamate, which dissociates and then quickly degrades to methyl isothiocyanate (MITC) (see Metam Sodium (see above). On the basis of the formation of the same toxic degradate, this compound should be prioritized and evaluated together with Metam Sodium.	See metam sodium (above).
Oxyfluorfen	0.5	Has been monitored by the SVWQC. In 2012, there were five detections upstream of the Sacramento River at Freeport, all less than 0.07 µg/L; in 2011, there were 8 detections less than 0.4 µg/L, but a sample from the Colusa Basin Drain contained 0.77 µg/L, which is higher than the benchmark (SVWQC 2012, 2013). The highest concentration in the Sacramento Valley watershed in DPR's surface water database is 0.22 µg/L (DPR 2013b).  Statewide, concentrations as high as 4.7 µg/L have been reported in surface water, but most values are less than the benchmark (DPR 2013b).	Since a concentration greater than the benchmark was measured, monitoring is appropriate in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections.
Ethalfuralin	0.4	Statewide, detections are rare, but concentrations as high as 0.36 µg/L have been reported in surface water. Sampling in the Sacramento Valley was from relatively limited locations receiving agricultural runoff, but does include many samples from the Sacramento River at Freeport between 1999 and 2004 with no detections (reporting limit of 0.004-0.009 µg/L) (DPR 2013b).  Use has increased significantly over the past ten years from about 10,000 pounds in 2002 to about 26,000 pounds in 2011 (DPR 2013a).	Request that Water Board staff and SVWQC evaluate ethalfuralin during planning for the pesticides monitoring under the ILRP Sacramento River Watershed WDRs. Environmental fate and monitoring studies should be evaluated in light of the new EPA cancer risk benchmark, current use patterns, and the most vulnerable time periods to clarify if past monitoring is representative of risks in the Sacramento River Watershed and whether monitoring is warranted in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections.

**Table 2. Evaluation of Twelve Highest Ranking Non-Rice Pesticides (Continued)**

Pesticide	Drinking Water Benchmark (µg/L)	Evaluation	Recommendation
Chlorpyrifos	2	<p>Since 2006, more than 900 surface water samples have been collected in the Sacramento River watershed, none of which exceeded the drinking water benchmark, and less than 0.2 percent exceeded 10 percent of the benchmark (SVWQC 2007-2011). Since 2006, there have been no detections in the Sacramento River main stem (SRCSD CMP 2006-2011).</p> <p>The upcoming Diazinon and Chlorpyrifos Basin Plan Amendment will address chlorpyrifos for purposes of aquatic life protection. Threats to aquatic life occur at concentrations below the human health benchmark.</p>	<p>Additional monitoring is unnecessary at this time from the drinking water source protection perspective. Monitoring data associated with TMDL implementation should be periodically evaluated to confirm that future management practices continue to provide sufficient protections.</p>
Oryzalin	5	<p>Has been monitored by the SVWQC. In 2011, it was detected in a sample upstream of the Sacramento River at Freeport at 0.6 µg/L; in 2009, it was detected in 2 samples in Walker Creek, an upstream watershed, with a maximum concentration of 4.9 µg/L (SVWQC 2012, 2013). The highest concentration in the Sacramento Valley watershed in DPR's surface water database is 2.2 µg/L (DPR 2013b).</p> <p>Statewide, excluding spills, concentrations as high as 15 µg/L have been reported in surface water, but most values are less than the benchmark (DPR 2013b).</p>	<p>Since measured concentrations approached the benchmark, monitoring is appropriate in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections.</p>
Iprodione	0.8	<p>Statewide no detections have been reported in surface water. Sampling in the Sacramento Valley was from relatively limited locations receiving agricultural runoff, but does include many samples from the Sacramento River at Freeport between 2005 and 2010 with no detections (reporting limit of 0.01 to 0.538 µg/L) (DPR 2013b).</p> <p>Use has increased over the past ten years from about 13,500 pounds in 2002 to about 21,000 pounds in 2011 (DPR 2013a).</p>	<p>Request that Water Board staff and SVWQC evaluate iprodione during planning for the pesticides monitoring under the ILRP Sacramento River Watershed WDRs. Environmental fate and monitoring studies should be evaluated in light of the new EPA cancer risk benchmark, current use patterns, and the most vulnerable time periods to clarify if past monitoring is representative of risks in the Sacramento River Watershed and whether monitoring is warranted in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections.</p>

**Table 2. Evaluation of Twelve Highest Ranking Non-Rice Pesticides (Continued)**

Pesticide	Drinking Water Benchmark (µg/L)	Evaluation	Recommendation
Diazinon	1.2	<p>Since 2006, more than 900 surface water samples have been collected in the Sacramento River watershed, none of which exceeded the drinking water benchmark, and less than 0.5 percent exceeded 10 percent of the benchmark (SVWQC 2007-2011). Since 2006, there have been 22 detections in the Sacramento River main stem, yet all were less than 10 percent of the benchmark (SRCSA CMP 2006-2011).</p> <p>The upcoming Diazinon and Chlorpyrifos Basin Plan Amendment will address diazinon for purposes of aquatic life protection. Threats to aquatic life occur at concentrations below the human health benchmark.</p>	<p>Additional monitoring is unnecessary at this time from the drinking water source protection perspective. Monitoring data associated with TMDL implementation should be periodically evaluated to confirm that future management practices continue to provide sufficient protections.</p>
Propargite	1	<p>In the Sacramento Valley, measurements have occurred at many locations receiving agricultural runoff, including many samples from the Sacramento River at Freeport between 1996 and 2010 with no detections reported (reporting limits &lt;0.1). Only four detections were reported in Sacramento Valley sampling locations; the highest concentration in the Sacramento Valley watershed in DPR's surface water database is 0.3 µg/L (DPR 2013b).</p> <p>Statewide concentrations as high as 20 µg/L have been reported in surface water, but most measurements are lower than the benchmark (DPR 2013b).</p> <p>Use has decreased significantly over the past ten years from about 116,000 pounds in 2002 to about 13,000 pounds in 2011 (DPR 2013a).</p>	<p>Consider conducting additional review of propargite. Environmental fate and monitoring studies should be evaluated in light of the new EPA cancer risk benchmark, declining use, current use patterns and anticipated use trends, and the most vulnerable time periods to clarify if past monitoring is representative of risks in the Sacramento River Watershed and whether additional monitoring is appropriate in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections.</p>
Simazine	4	<p>Simazine has been monitored by the SVWQC and the California Rice Commission with detections, at concentrations less than 0.4 µg/L (SVWQC and CRC 2006-2011; SVWQC 2012). However, in 2012, the SVWQC had a detection of 5.4 µg/L in Pine Creek and in 2009 there was a detection of 10 µg/L in Walker Creek, both of which are upstream watersheds (SVWQC 2011, 2013).</p>	<p>Since concentrations greater than the MCL were measured, monitoring is appropriate in the ILRP Sacramento River Watershed WDRs monitoring program to ensure that management practices provide sufficient protections.</p>

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