3.2.13 Letter 10—Regional Council of Rural Counties, Nick Konovaloff, Legislative Analyst

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Comment Letter IL10

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September 20, 2010

Pamela Creedon, Executive Officer Central Valley Regional Water Quality Control Board 11020 Sun Center Drive Rancho Cordova, CA 95670-6114

Re: Long Term Irrigated Lands Regulatory Program Programmatic Environmental Impact Report – Draft Report

Dear Ms. Creedon:

On behalf of the thirty member counties of the Regional Council of Rural Counties (RCRC), we are writing to express our concerns as well as our points of agreement with the Central Valley Water Board Long Term Irrigated Lands Regulatory Program (ILRP) Programmatic Environmental Impact Report (PEIR) as summarized in the Draft Report (Report). First, we would like to appliand your efforts given the enormity of the task, as well as offer our appreciation for the opportunity provided by the Regional Board to participate as an interested observer in the stakeholder process. With that said, RCRC respectfully offers the following comments primarily as it relates to the low and high priority area issue.

RCRC has thirty member counties geographically dispersed throughout California from the California-Mexico border to the eastern spine of the Sierra Nevada's to the Pacific Ocean to the California-Oregon border. RCRC's member counties are predominately located in Northern California and those counties contain the vast majority of California's watersheds that provide the needed water supply for two-thirds of all Californians including much of the agricultural industry.

RCRC shares a number of concerns as expressed by the Sacramento Valley Water Quality Coalition (SVWQC) and others regarding the PEIR. One such concern is the requirement that if there are two or more exceedances of a particular waste constituent at the same monitoring site within a 3-year period that coalition groups are required to prepare and submit a management plan to address the exceedances. RCRC questions the use of this standard. Two or more exceedances within a three year time period does not necessarily mean that beneficial uses (i.e. non-aquatic) are being impaired. Additionally, RCRC believes that language throughout the document

10-1

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should be modified to specify that the exceedances are associated with irrigated agriculture and/or irrigated agriculture is identified as the predominant source of the exceedance. As you are well aware, in many instances other nonpoint sources (i.e. natural causes or legacy OC Pesticides) contribute to exceedances.

10-1 cont'd

Many of the counties in Northern California as well as the eastern spine of the state have geographically isolated operations and have minimal issues as noted in the Report. For example on page 27 the Report notes:

In the upper Sacramento River Basin, generally north of Tehama County, as well as in the foothill regions of both the Sacramento and San Joaquin River Basins, there is infrequent or no use of agricultural pesticides in most areas (CA DPR Pesticide Use Reports).

10-2

Many RCRC member counties have isolated agricultural operations and RCRC supports the staff recommendation outlined on page 138 regarding low priority areas.

Recommendation: A series of areas, geographically based, or commodity based implementation mechanisms with prioritized requirements. <u>Implementation mechanisms could include waivers in low priority areas</u> (emphasis added) and general WDR's in high priority areas. Individual WDRs could be developed and implemented as an enforcement tool.

RCRC is supportive of a tiered system and supports the staff recommendation outlined on page 139 regarding a geographically based tiering system.

 Recommendation: Establish geographically based tiering system to reduce costs for lower threat areas.

However, RCRC does have some reservations and confusion regarding the Tier 1 (low priority areas) and Tier 2 (high priority areas) approach as currently drafted.

10-3

It appears as drafted at the bottom of page 151 and the top of page 152 that nearly everyone would begin in Tier 2 and have to provide rationale for moving to Tier 1.

Examples of high priority areas for surface water would be those under SQMPs in the current ILRP (where irrigated agricultural operations are a source of the water quality concern). Area priority may be re-classified by the Central Valley Water Board based on review of new information collected during program implementation.

RCRC questions why those areas under SQMPS in the current ILRP should automatically be placed in Tier 2 as proposed. As noted earlier, natural causes contribute to exceedances such as DO and pH.

On page 146 the document states that where a large geographic area has multiple low and high-priority sub-areas that the mechanism would be WDR's and the

requirements of the WDRs then may be tailored to address the sub-areas. RCRC questions why Tier 2, with its more stringent requirements and higher costs should be the automatic default.

10-4 cont'd

Agriculture remains a critical aspect of the economy throughout the state but particularly in rural areas and it is imperative that any public policy is carefully crafted to balance the goals of the policy with the economy, jobs and the people of the state as well as the resources of those responsible for implementing the policy.

RCRC is most appreciative of the opportunity to provide these comments and looks forward to a successful program that adequately addresses the needs of all the stakeholders.

Sincerely,

Nick Konovaloff Legislative Analyst

3.2.13.1 Responses to Letter 10

10-1

See Comment Letter 33, Response 4 and Comment Letter 41, Response 23.

Under Alternatives 1, 2, and 6, identification of irrigated agriculture as the source, in whole or part, of water quality exceedances would be the first step in the development of a management plan. If natural or nonagricultural sources are established as being responsible for the exceedances, the Central Valley Water Board's Executive Officer may waive further development of a management plan.

10-2

The support for isolating low priority areas, described in Alternative 6, will continue to be considered in the development of the Long-term ILRP.

10-3

The support for a tiered system will be considered in the development of the Long-term ILRP.

See Comment Letter 97, Response 6 and Comment Letter 111, Response 21.

10-4

Under Alternative 6, the implementation mechanism selected for a large geographic area would include multiple subareas. Developing separate implementation mechanisms for each subarea would be costly and impractical in cases where a single third-party group would be the lead-entity for a large geographic area. As stated on page 146 of the Draft PEIR, Appendix A (text box), implementation mechanism selection for a geographic area would be based on whether there are any high priority areas (WDRs—high priority areas or a mixture; waiver—only low priority areas). Requirements of the WDRs would then be tailored to implement Tier 1 requirements in the low priority subareas. The Tier 1 requirements proposed for low priority subareas under WDRs would be similar to the conditions for low priority areas under a conditional waiver.

3.2.14 Letter 95—Sacramento County Farm Bureau, Charlotte Mitchell, Executive Director

Comment Letter IL95



SACRAMENTO COUNTY FARM BUREAU

8970 Elk Grove Boulevard • Elk Grove, California 95624-1946 (916) 685-6958 • Fax (916) 685-7125

September 24, 2010

Ms. Megan Smith 630 K Street, Suite 400 Sacramento, CA 95814

SUBJECT: Comments on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program

Dear Ms. Smith:

The Sacramento County Farm Bureau (Farm Bureau) is providing the following comments on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program (DPEIR).

The most significant concern we have is the unnecessary expansion of a current program that places a financial burden on our members who farm and ranch in Sacramento County. The business of producing food for the region, State and nation has become increasingly costly due to the layers of regulatory programs placed upon an industry that cannot pass these costs onto its customers. Farming and ranching is unique in that capacity and should be protected against any unnecessary, costly regulatory programs. The Regional Board estimates in the DPEIR the costs to administer the program will range from approximately \$4 million to \$66 million depending on the Alternative selected. Up to 97% of these costs would be funded by agriculture through acreage fees assessed by the Regional Board. The Economic Analysis estimates it would cost a grower \$5,000 in low impact areas, in addition to costs for water quality testing. This is simply unacceptable. This is concerning as the water quality monitoring performed is also a public benefit. The proposed Long Term Irrigated Lands Program must utilize existing monitoring programs. Our family farmers and ranchers are unable to absorb anymore regulatory costs!

95-

In addition, the current Irrigated Lands Regulatory Program (ILRP) has shown very few water quality problems caused by agriculture and therefore does not constitute the need for a major expansion to this current program.

95.2

To Represent and Promote Agriculture in Sacramento County

RE: Comments on the DPEIR for Central Valley ILRP Sacramento County Farm Bureau September 24, 2010 Page 2

The following comments are specific to the DPEIR.

Alternative 1 does not accurately represent the "No Project" scenario; Continuation
of the existing ILRP would be a project subject to CEQA.

The DPEIR states that Alternative 1 constitutes the "No Project" Alternative, which the DPEIR defines as 'full implementation of the present program." This description of Alternative 1 is misleading. In actuality, the DPEIR does not include a true "No Project" Alternative that represents what would happen if the Regional Board took no action. The "No Project" Alternative is a mandatory component of an EIR. The purpose of this CEQA requirement is "to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." (California CEQA Guidelines.)

95-3

The DPEIR does not adequately evaluate the Program's direct and indirect effects on the environment.

The DPEIR acknowledges, under the alternative analyzed, the higher cost of irrigation would result in less water being used and some land going out of production. What the DPEIR fails to analyze is the impact of less irrigation water returning to streams and diminished groundwater recharge. The process of irrigation has many benefits; including the recharging of groundwater basins. Numerous entities rely on that recharged groundwater to meet their water supply needs, including urban agencies, private domestic users, industry and agriculture. Irrigation water in many cases recharges area streams providing positive environmental benefits. In a specific situation, a nearby creek receives the benefit of irrigation water from corn, this creek would normally dry up in the summer time but with return irrigation water it runs year-round providing habitat for a variety of species.

95.4

In addition, the DPEIR does not fully address the impacts it would cause by increase irrigation costs and therefore loss of actively farmed land on the Sacramento County General Plan and the South Sacramento Habitat Conservation Plan. Both of these plans rely upon actively farmed land to achieve their goals and objectives. The DPEIR does not discuss how these plans would be affected.

95-5

The DPEIR also does not analyze any conflicts with the County's land use plans, regulations, or zoning ordinances.

RE: Comments on the DPEIR for Central Valley ILRP Sacramento County Farm Bureau September 24, 2010 Page 3

The DPEIR makes the assumption that all irrigated agriculture creates a discharge of waste is inappropriate.

To presume that irrigated agriculture discharges water that is toxic waste is inaccurate and has no evidentiary support. This inaccurate assumption then places the entire burden to the farmer or rancher to disprove that they have created a discharge of waste. The Staff Report makes a broad assumption that all irrigated agriculture creates a discharge of waste, subjecting operations. This clearly provides that at farmer or rancher is guilty and must then prove his or hers innocents to the quality of water discharged. This is unacceptable. The Staff Report goes on to acknowledge that some of these operations do not create a discharge of waste. This appears to be inconsistent.

4. Tier Classifications are concerning.

The Tier 1 and Tier 2 approach needs revision. All operators of irrigated agriculture land should be identified as Tier 1 unless quality data indicates otherwise. Again, the proposed language assumes that all irrigated agriculture creates waste discharge. This is faulty and is an unsupported acquisition. It would appear then the Regional Board would need to asses all individual agricultural operations to determine if each operation would either become a Tier 1 or Tier 2. This approach is infeasible. The Regional Board should revise the Tier 1 and Tier 2 classifications to clearly indicate the designation of water bodies between Tier 1 and Tier 2 must be limited based on the use of scientific, quality controlled data. Tier 2 groundwater designations should be initially limited to DPR groundwater management zones and areas where nitrates or other constituents are known to effect drinking water quality. It should also be recognized that in some areas of the County all water quality standards are met except for bacteria. It is very difficult to show that these exceedances are caused by irrigated agricultural operations. In many cases this is caused by nature; something that agriculture cannot control nor should they be held accountable for.

5. Periodic Review of Approved Management Plans

The Recommended Program Alternative requires review of the management plans to occur every two or five years, depending on the type of management plan, by third party groups and other interested parties. While we concur that a periodic review is necessary, we disagree that 'other interested parties' should be involved in that review process. The Regional Board represents the public interest and therefore it would be unnecessary and not legally subject to allow for the general public to review such documents.

95-9

RE: Comments on the DPEIR for Central Valley ILRP Sacramento County Farm Bureau September 24, 2010 Page 4

Sacramento County Farm Bureau is concerned about the proposed Long Term Irrigated Lands Program and has outlined some of the challenges it presents to our family farmers and ranchers. We support the technical and legal comments submitted on behalf of the Sacramento Valley Water Coalition, several agricultural organizations and other water quality coalitions, by Teresa Dunham, Esq.

Again, we thank you for the opportunity to submit comments. However, we strongly encourage you to review the comments and suggestions that we have provided as well as the California Farm Bureau and the Sacramento Valley Water Quality Coalition. Agriculture is the backbone of our State and nation. We must protect it from further regulatory crosion. While we agree that water quality is important not only to our farm and ranch families but for urban users as well, agriculture cannot absorb anymore regulatory costs before they are put out of business.

Sincerely,

Charlotte Mitchell

Charlotte Mitchell, Executive Director

3.2.14.1 Responses to Letter 95

95-1

See Master Response 17. Also, see Comment Letter 96, Responses 11 and 12.

95-2

Water quality data collected in major areas throughout the Central Valley show a correlation between irrigated agricultural discharges and effects on local surface water and groundwater quality and it is widely accepted that, in many areas of the Central Valley, irrigated agriculture does impact water quality. Refer to ECR Chapter 3, Surface Water Quality, and Chapter 4, Groundwater Quality, for additional discussion of this topic. The ECR is incorporated by reference into the Draft PEIR and provides the baseline conditions for purposes of the impact assessments. Also see Comment Letter 50, Response 14.

95-3

See Master Response 2.

95-4

See Master Response 14 and Comment Letter 111, Response 53.

95-5

See Master Response 11.

95-6

See Master Responses 7 and 11 and Comment Letter 111, Response 53.

95-7

See Comment Letter 95, Response 2. The Central Valley Water Board recognizes that not all irrigated agriculture impacts water quality. However, the data presented in the ECR (incorporated by reference into the Draft PEIR) indicate exceedences of water quality standards that are shown to occur as a result of irrigated agriculture operations. (See ECR Chapters 3 and 4).

Also see Master Response 12.

95-8

See Comment Letter 1, Response 5.

Alternative 6's tier system would be geographically based (e.g., watershed, basin). Geographic areas would be assessed using regional monitoring collected in the current program and other information to assign a tier level to the area. Alternative 4's tier system would be implemented at the individual field level as suggested in this comment.

The concerns regarding the feasibility of assessing individual operations and recommendations provided by the comment will be considered in the development of the Long-term ILRP.

See Comment Letter 111, Response 21.

95-9

See Comment Letter 1, Response 48.

3.2.15 Letter 116—Sierra County Board of Supervisors, Dave Goicoechea, Chairman of the Board

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JSA

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Comment Letter IL116

SIERRA COUNTY

Board of Supervisors P.O. Drawer D Downieville, California 95936 Telephone (530) 289-3295 Fax (530) 289-2830



September 27, 2010

ILRP Comments Ms. Megan Smith 630 K Street, Suite 400 Sacramento, CA 95814

Dear Ms. Smith:

Thank you for the opportunity to comment on the Deaft Programmatic Environmental Impact Report for the Irrigated Lands Regulatory Program (ILRP) and we request that you give serious consideration to the issues brought forward by the County of Sierra. The County of Sierra has previously submitted comments and has participated in numerous meetings between Regional Board staff and the representatives of the Upper Feather River Watershod in Plumas and Sierra Counties. The following comments are in addition to those previously provided to your staff.

The Board of Supervisors strongly supports and stresses the importance of developing implementation policies that recognize the existence of the homogenous local agricultural practices within the higher elevation subwatersheds like the Upper Feather River Watershed. This demands that the program incorporate more reasonable low-impact tiers that recognize the diversity of subwatershed regions, climate, water supply and use, geology, agricultural practices, non-agricultural land uses within the sub-region, and so forth. This, in turn, creates a more fair and equitable program that recognizes the subregions and allows direct accountability for program implementation at the local level.

We are pleased that Alternative 2 in the Draft Environmental Impact Report presents a tiered approach to the ILRP based on risk assessment and provides a framework that can be used to establish an effective program that makes the best use of both private and public funds to improve and protect water quality. We encourage the Regional Board to move forward with Alternative 2 as the basis for the long-term program. Of course, the details of such a program are critical and it is imperative that these details contain language and policy that reflect the unique conditions that we find in the Upper Feather River Watershed and likely that will be found in other regions. To effectively address our general concerns and obtain the benefits of a tiered approach, elemental aspects of the program will need further consideration and definition, which seems to be acknowledged by both regional board members and staff:

- How exactly will the lines be drawn between the different risk-based tiers?
- Given the current state of the economy and the strained resources of both local and state
 agencies to provide assistance and coordination that would otherwise support the most

116-1

116-2

116-3

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effective program, what is the timeline for implementation and how will priorities be established? • How can the ILRP benefit from the County's involvement in the Integrated Regional Water Management Planning process (IRWMP) and the existence of the Sierra Valley Groundwater Management District that encompasses all of the Upper Feather River Watershed area.	116-4 cont'd
 What are the equitable considerations and what are the consequences for maintaining the economic viability of agriculture in higher-elevation watershed areas where the economic returns are relatively "low value" and the agricultural practices are relatively low-impact and low-risk? 	116-6
 How do you identify, quantify, and separate lower elevation and lower watershed regions and their respective issues, constraints, and restrictions to the upper reaches where like issues, constraints, and restrictions do not exist? In the present case, we feel that the Upper Feather River Watershed is a Tier I low risk area and all aspects of and as a result have a reduced burden for monitoring and regulatory oversight. 	116-7
The staff report accompanying the EIR includes Figure 23 on page 161 with an example of a prioritization scheme for requiring different levels of surface and groundwater monitoring based upon known or potential water quality problems. The lesser level of monitoring requirements is based upon an area having "no irrigated agriculture related water quality problems." Depending upon how such a standard is interpreted, it could create a "zero tolerance" requirement that would eliminate any practical distinction offered by the multi-tiered approach. Unless management plans have been required as a result of exceedances of water quality objectives (or water quality impairments caused by agricultural operations have resulted in 303(d) listings), Tier 1 should be the appropriate monitoring level. Beyond that, where water quality is not in a state where beneficial uses are impaired, <u>trends</u> in water quality should be analyzed in each specific situation to determine an appropriate response based on the likelihood that the trend will actually lead to degradation of beneficial uses.	116-8
A timeline for the long-term ILRP should consider prioritizing implementation actions by balancing the needs of public health and the environment against current economic conditions and the financial challenges currently faced by both private and public participants. It is understandable that where practices on irrigated lands are significantly impacting the quality of drinking water or habitats for sensitive species, the most immediate practicable implementation timeline would be desired. However, in apparently low-risk regions where significant water quality impairments have not been identified or where there is a psucity of reliable data, additional implementation time would allow collaboration with stakeholders that may still be on the periphery of the irrigated lands program, such as local environmental health agencies, municipally-focused groundwater management programs, and the groundwater programs of the Department of Water Resources and the Sierra Valley Groundwater Management District.	116-9
The burden the ILRP could place on private landowners during these difficult economic times must be understood and reversed. The fact that this program could induce loss of agricultural lands and cause conversion to non-agricultural uses is problematic and directly contradicts the County General Plan direction. The EIR itself identifies some loss of agricultural resources as an unavoidable impact of the program. Why and how can this be an acceptable impact. To the	116-10
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extent those losses result in loss of open space and habitat and in conversion to uses that have other water quality impacts, an irrigated lands program that induces conversion seems to be at cross-purposes with the stated program goals and is unacceptable to the County. This potential short and long-term impact needs to be eliminated.

116-10 cont'd

Another consideration in establishing an implementation timeline should be the opportunity to coordinate with ongoing developments in the Integrated Regional Water Management program (IRWM) and the California Statewide Groundwater Elevation Monitoring program (CASGEM). To the extent these regional programs can help efficiently address ILRP needs (even if it is to only verify that there are no water quality issues), it could reduce the financial burden on agricultural landowners and increase the prospects for continued economic viability. Timelines for achieving ILRP benchmarks that do not consider the status of these other ongoing processes will force agriculture to fend for itself when opportunities for coordination, assistance, and efficiency are coming over the horizon.

116-11

A final, important consideration is the special combination of factors that define conditions in the high-elevation watersheds like those of the Upper Feather River region, where most of the irrigated lands are at 5,000 feet in elevation. The unique natural characteristics of this high elevation, alpine meadow region (classified as the largest in North America at the 5000 foot elevation or higher) and the current and potential agricultural practices dictated by climate, water supply, geology, and so forth have defined this upper region of the watershed as unique and very appropriately considered at the tier I level. The relatively low-value-per-acre agricultural activities identified in the EIR's economic analysis are the predominant uses of irrigated lands in the Upper Feather River region. To the extent program fees are applied on a per-acre basis, the relative economic burden on agricultural operations is only increased for the people in our region. On the other hand, the upper watersheds have the benefit of generally good water quality - both for surface water and groundwater. Where existing water quality data does not indicate any significant problems related to irrigated lands, and where acreage-based program fees already impose disproportionate burdens, it does not seem reasonable or equitable to require extensive monitoring programs in order to "prove a negative." We have no exceedances, we are not an impaired water body, and we feel that the Upper Feather River Watershed is on very solid ground for Tier 1-no impact classification.

116-12

In summary, thank you again for the opportunity to comment further on the development of the ILRP and for advancing the framework of a tiered approach to implementation. Sierra County strongly supports this tiered approach and we look forward to participating in the development of this program, including the stakeholder and CEQA processes that will follow.

Sincerely,

Sierra County Board of Supervisors

Dave Goicoechea Chairman of the Board

3

3.2.15.1 Responses to Letter 116

116-1

The comment's support for tiered program that will recognize agricultural practices within higher elevations will be considered in the development of a Long-term ILRP.

116-2

The support for Alternative 2 will be considered in the development of the Long-term ILRP.

116-3

See Comment Letter 47, Response 2.

116-4

Alternative 6 includes a timeline for implementation and prioritization system for addressing water quality problems (see Draft PEIR, Appendix A, pages 142–162).

116-5

If the Central Valley Water Board adopts Alternative 2 or 6, the management and monitoring under the IRWMP and Sierra Valley Groundwater Management District would be considered and coordinated with (where possible) in the development of monitoring and other regulatory requirements.

116-6

In "low-impact, low-risk" areas, the regulatory costs to growers are anticipated to be minimal. See Comment Letter 39, Response 1.

116-7

See Comment Letter 47, Response 2. The support for a tiered program that will recognize agricultural practices within higher elevations will be considered in the development of the Longterm ILRP.

116-8

See Comment Letter 47, Response 6.

116-9

See Comment Letter 45, Response 55. Staff believes the priorities established in Alternative 6's "Time schedule for compliance" reflect the suggested approach. The support for this approach will be considered in the development of the ILRP.

116-10

See Master Responses 11, 14, and 17.

116-11

The Central Valley Water Board agrees that it is important to take advantage of ongoing or planned information collection efforts. Coordinating the specific schedules for these local efforts would be addressed in the timelines established in the geographic-specific orders (under Alternative 6).

116-12

The comment's support for a tiered program that will recognize agricultural practices within higher elevations will be considered in the development of the Long-term ILRP.

Letter 134—Stanislaus County Environmental Review 3.2.16 Committee, Christine Almen, Senior Management Consultant



Comment Letter IL134 CHIEF EXECUTIVE OFFICE Richard W. Robinson Chief Executive Officer

> Patricia Hill Thomas Assistant Executive Officer

Monica Nino-Reid Assistant Executive Officer

Assistant Executive Officer

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STANISLAUS COUNTY ENVIRONMENTAL REVIEW COMMITTEE

September 27, 2010

Ms. Megan Smith **ILRP Comments** 630 K Street, Suite 400 Sacramento CA 95814

SUBJECT: ENVIRONMENTAL REFERRAL - CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - WASTE DISCHARGE REGULATORY PROGRAM FOR IRRIGATED LANDS WITHIN THE CENTRAL VALLEY REGION

Ms. Smith:

The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project and has no comments at this time.

The ERC appreciates the opportunity to comment on this project.

Sincerely,

Christine Almen, Senior Management Consultant

Environmental Review Committee

Christine almen

cc: ERC Members

3.2.16.1 Responses to Letter 134

There are no comments requiring responses in this letter.

3.2.17 Letter 102—Sutter County Resource Conservation District, James Cornelius, P.E., Water Resources Engineer



Comment Letter IL102

530.874.1481 PHONE 530.874.1480 FAX

1511 Butte House Road - Suite C, Yuba City, CA 95993

September 27, 2010

ILRP Comments Ms. Megan Smith 630 K Street, Suite 400 Sacramento, CA 95814

Subject: Comments on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program

Dear Ms. Smith:

The Butte Yuba Sutter Water Quality Coalition (BYSWQC) supports comments prepared jointly by the Central Valley Water Quality Coalitions relative to the Draft Program Environmental Impact Report (DPEIR) for the Central Valley Irrigation Lands Regulatory Program, the Draft Staff Report and the Recommended Program Alternative (RPA).

The area of concerns relative to the DPEIR and the RPA are:

	The DPEIR Does Not Accurately Describe or Analyze the Proposed Project The Cumulative Impacts of the Preferred Alternative Are Not Accurately Analyzed	102-1
C.	Alternative 1 Does Not Accurately Represent the "No Project" Scenario; Continuation of the Existing ILRP Would Be a Project Subject to CEQA, Not the "No Project" Condition	102-3
D.	The DPEIR Misrepresents the Baseline Conditions, So the Entire Environmental Analysis Is Tainted	102-4
, E.	The DPEIR Fails to Evaluate the Program's Reasonably Foreseeable Direct and Indirect Effects on the Environment	102-5
F.	The DPEIR Grossly Understates the Program's Potential Impacts on Land Use	102-6
G.	The DPEIR's Conclusions Regarding Global Warming Are Not Supported by Substantial Evidence	102-7
H.	The DPEIR Arbitrarily Imposes Measures That May Not Be Legally Imposed	102-8

In summary, the issues that should be addressed in the Staff Preferred Alternative are as follows:

1. Consistent with the recommendations contained in the Groundwater Quality Protection Strategy "Roadmap", the Regional Water Quality Control Board, Central Valley Region (Regional Board) should expand on partnerships opportunities that rely upon the appropriate local entities and state agencies involved in groundwater monitoring and protection (Department of Water Resources, Department of pesticide Regulation, Department of Public Health, etc.) to compile, analyze, and utilize existing groundwater data and protection programs, and identify gaps, prior to proceeding with the adoption, regulation, and enforcement upon potential dischargers of groundwater monitoring programs within the LT-ILRP. The appropriate local entities will vary throughout the Central Valley and may include the coalitions, local public agencies, and integrated regional water management planning agencies.

♠ SCRCD "Collaboration Through Cooperation"

- Reasonable time frames (no less than three years) must be established to develop local programs through the LT-ILRP that address prioritized groundwater quality problems.
- b. Sources of existing groundwater data should be fully utilized and include, but are not limited to: Groundwater Ambient Monitoring & Assessment Program (GAMA), Department of Pesticide Regulation (DPR), CV-SALTS, Department of Public Health, Department of Toxic Substances Control, and data compiled by local groundwater imanagement agencies and the Integrated Regional Water Management Plan (IRWMP).

cont'd

102-9

- c. Targeted identification will allow for proper determinations and prioritization regarding necessary and appropriate actions to take to address groundwater quality problems at the local level.
- Without such foundational steps, requirements within the LT-ILRP may be duplicative and conflict with other local and state programs managing groundwater.
- Recognition within the program the exceedances of constituents of concern with significant natural and other non-ag sources, such as DO, pH and pathogens (fecal / coliform / E. coli), will not constitute significant monitoring and regulatory compliance burdens.

102-10

3. Criteria used to designate Tier 1 and Tier 2 must be clarified and limited to scientific, quality-controlled data. Management Plan triggers, excluding natural and non-ag source DO, pH and pathogens, should serve as the basis for Tier 2 Surface Water designation. Tier 2 Groundwater designation should be initially limited to DPR groundwater management zones and areas where nitrates or other constituents are known to affect drinking water quality.

102-11

In conclusion, the BYSWQC appreciates the opportunity to comment on the DPEIR, RPA and associated documents. As indicated above, we have significant concerns with the DPEIR and the RPA. However, we continue to believe that Alternative 2 provides the necessary protection for water quality while allowing the BYSWQC the ability to assist growers and the Regional Board in developing reasonable programs for the protection of surface and groundwater in the BYSWQC Sub-Watershed. Further, unlike the RPA, Alternative 2 has been analyzed in the DPEIR and therefore is less vulnerable to CEQA challenge than the RPA. Thus, we encourage the Regional Board to consider the comments provided above and recommend Alternative 2 as the preferred alternative for Regional Board consideration.

102-12

Sincerely,

James Cornelius, P.E. Water Resources Engineer Coordinator BYSWQC

Sutter County Resource Conservation District

cc: Bruce Houdesheldt

Director Regulatory Affairs, NCWA 55 Capital Mall Ste 335

Sacramento, CA 95814

Steve Danna Chair, BYSWQC P.O. Box 3398 Yuba City, Ca 95992

SCRCD "Collaboration Through Cooperation"

3.2.17.1 Responses to Letter 102

102-1

See Master Responses 3, 4, and 7.

102-2

See Master Response 9.

102-3

See Master Response 2.

102-4

See Master Response 1.

102-5

The Central Valley Water Board finds that the document adequately addresses the alternatives' direct and indirect effects on the environment. See Master Responses 7 and 14.

102-6

See Master Response 14, 7 and 11.

102-7

See Master Response 16.

102-8

The comment has not provided the basis for a determination that an arbitrary and illegal imposition of measures exists. California Water Code Section 13360 prohibits the Board from specifying the manner of compliance with water quality objectives. Therefore, the Long-term ILRP will require changes in management in order to ensure water quality objectives and other state policies are met (e.g., Antidegradation Policy).

102-9

See Comment Letter 96, Response 11.

The requirements for the groundwater quality management plans include compilation of existing information and a description of the processes or types of studies that will be used to gather additional information. Because plan preparation does not require new studies or data collection, completing the preparation of the management plan, including conducting any necessary coordination, should be achievable within 18 months. The comment did not provide any data or evidence to support the need for a 3-year time frame.

102-10

Management plans developed under ILRP Alternatives 1, 2, and 6 to address repeated exceedances of a water quality parameter must first identify if agriculture is, in whole or part, responsible for the exceedances. If natural or nonagricultural sources are identified as being responsible for the exceedances, the Central Valley Water Board's Executive Officer may waive further development of a management plan.

The Central Valley Water Board acknowledges that dissolved oxygen (DO)/pH/pathogen exceedances may have multiple sources. It will consider inclusion of refinement of a tier system in the Long-term ILRP to provide flexibility to characterize areas as lower priority, with associated reduced management/ monitoring, even if there have been exceedances for these types of parameters. Also see Comment Letter 111, Response 21.

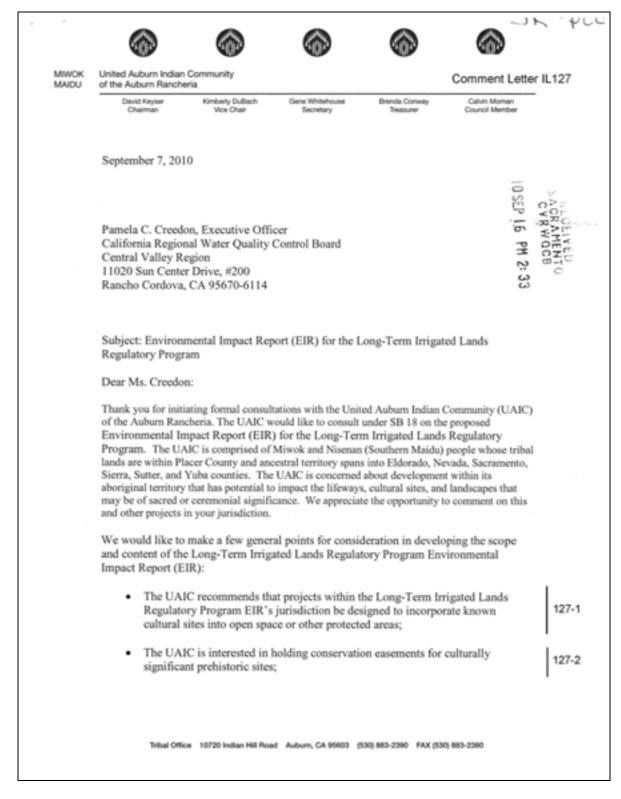
102-11

This comment will be considered in development of the Long-term ILRP.

102-12

The support for Alternative 2 will be considered in the development of the Long-term ILRP. See Master Responses 3 and 4.

3.2.18 Letter 127—United Auburn Indian Community of the Auburn Rancheria, Greg Baker, Tribal Administrator



Page 2 of 2

 The UAIC would like the opportunity to provide Tribal representatives to monitor projects if excavation and data recovery are required for prehistoric cultural sites, or in cases where ground disturbance is proposed at or near sensitive cultural resources;

127-3

 The UAIC is interested in receiving cultural materials from prehistoric sites where excavation and data recovery has been performed;

127-

 The UAIC would like to receive copies of environmental notices and documents for projects within the jurisdiction of the Long-Term Irrigated Lands Regulatory Program

27-5

 The UAIC would like to receive all confidential cultural and archaeological reports within the jurisdiction of the Long-Term Irrigated Lands Regulatory Program.

127-6

Thank you in advance for taking these matters into consideration, and for involving the UAIC in the planning process as early as possible. We look forward to meeting with you in the near future, and to reviewing the EIR. Please contact Marcos Guerrero, cultural resources specialist, at (530) 883-2364 or email at mguerrero@aubumrancheria.com.

Sincerely,

Greg Baker Tribal Administrator

CC: Marcos Guerrero, UAIC

3.2.18.1 Responses to Letter 127

127-1

The Draft PEIR discusses potential impacts to cultural resources, see Chapter 5, Environmental Impacts and Mitigation Measures, Section 5.3, Cultural Resources, beginning at page 5.3-9. Lands enrolled in the Long-term ILRP are primarily privately owned. Assistance offered by the United Auburn Indian Community (UAIC) in monitoring excavation of culturally significant prehistoric sites is noted and appreciated. The Central Valley Regional Board will consider availability of this assistance when helping growers avoid impacts to cultural resources while implementing the Long-term ILRP. Growers who encounter cultural resources while undertaking practices to comply with the Long-term ILRP will be encouraged to consult with local Native American communities to ensure proper excavation and data recovery techniques are employed.

127-2

See Comment Letter 127, Response 1

127-3

See Comment Letter 127, Response 1.

127-4

Lands enrolled in the Long-term ILRP are primarily privately owned. Growers who encounter cultural resources while undertaking practices to comply with the Long-term ILRP will be encouraged to protect cultural materials from prehistoric sites through consultation with local Native American communities.

127-5

The UAIC has been added to the ILRP public notice mailing list.

127-6

If such reports are created, this request will be considered in coordination with the Native American Heritage Commission (NAHC).

3.2.19 Letter 45—Westlands Water District, Orvil D. McKinnis Jr., Watershed Coordinator



3130 N. Fresno Street, P.O. Box 6056, Fresno, California 93703-6056, (559) 224-1523, FAX (559) 241-6277

September 28, 2010

ILRP Comments Ms. Megan Smith 630 K Street, Suite 400 Sacramento, CA 95814

SUBJECT: Comments on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program

Dear Ms. Smith:

The Westlands Water District is providing the following significant comments and concerns on the Draft Program Environmental Impact Report for the Central Valley Irrigated Lands Regulatory Program (DPEIR), the Draft Staff Report, the Recommended Program Alternative (RPA), and the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program (Economic Analysis). As requested, our comments are organized by document and include recommended changes where they were deemed appropriate.

DPEIR

Overall, we find the analysis in the DPEIR to be superficial, and not specific to analyzing environmental impacts associated with the five alternatives as well as the RPA.

Our comments on the major areas of concern in the DPEIR are as follows.

The DPEIR Does Not Accurately Describe or Analyze the Proposed Project

The DPEIR analyzes five proposed alternatives. Staff has combined elements of many of these alternatives to develop a sixth alternative, which staff is now recommending for approval. As the recommended alternative, the staff-developed alternative has become the proposed project. However, the DPEIR does not analyze this project at all. While the elements of the staff-recommended alternative have been cherry-picked from the other alternatives, the ,

Ms. Megan Smith. Comments on the Draft Program EIR for Central Valley ILRP September 28, 2010. Page 2

DPEIR does not attempt to analyze the environmental impacts that would result if these elements were combined with each other, which is how they would be implemented if the alternative were selected.

A draft environmental impact report (EIR) must include a general description of the proposed project's technical, economic, and environmental characteristics. (State CEQA Guidelines, § 15124(c).) The project description must be stable, accurate, and consistent throughout the EIR. "An accurate, stable, and finite project description is the sine qua non of an informative and legally sufficient EIR." (County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 193.) "A curtailed or distorted project description may stultify the objectives of the [CEQA EIR] process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative, and weigh other alternatives in the balance." (Id. at pp. 192-193.)

45-1 cont'd

The DPEIR follows a NEPA-like approach. It does not identify any preferred alternative. Instead, it analyzes each of the alternatives in detail, and it claims that, at the conclusion of the environmental review process, any one of them could be adopted as the proposed project. Even if it is assumed that this approach fully complies with CEQA, the DPEIR fails because it does not attempt to analyze the environmental impacts associated with the Staff Recommended Alternative (Alternative 6). Although individual elements of Alternative 6 have been analyzed in the DPEIR, there is no evaluation of what would result when those elements are combined with each other, as they would be if Alternative 6 were to be selected for implementation.

Indeed, the DPEIR does not include this alternative in its text. Rather, the staffrecommended alternative is presented solely in the appendices. In Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, the Supreme Court reaffirmed that key elements of the CEQA analyses cannot be buried in the appendices. Here, the proposed project itself – the alternative that staff is recommending that the Regional Board implement as the program – is only presented in the appendices. This is an obvious violation of Vineyard, and it results in serious errors in the environmental analysis.

Thus, the DPEIR suffers from both substantive and procedural flaws that are critical to a full and public review of the DPEIR. Ms. Megan Smith Comments on the Draft Program EIR for Central Valley ILRP September 28, 2010 Page 3

The Cumulative Impacts of the Preferred Alternative Are Not Accurately Analyzed

The staff-recommended alternative represents an accumulation of elements presented in the five alternatives that are analyzed in the DPEIR. As noted above, Alternative 6 was not considered in the DPEIR, and no attempt was made to analyze the components of this program (as they would be applied) in conjunction with each other. Similarly, the DPEIR does not identify any projects or programs similar in nature, location, and type to result in a meaningful comparative analysis. CEQA Guidelines state, "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (State CEQA Guidelines, § 15130(a)(1).)

45-2

In breach of State CEQA Guidelines section 15130, the DPEIR employs neither a list nor a summary of plans and projections approach to the cumulative impacts analysis. In fact, the DPEIR does not identify a single program, policy, plan, or project to be included in the cumulative impacts analysis. Instead of analyzing the cumulative effects of the project together with other projects causing related impacts, the DPEIR simply concludes that there are no other projects – and analyzes the cumulative impacts of the project, standing alone; this analysis cannot withstand scrutiny. Other programs and projects that have the potential to affect water quality in the program area include U.S. EPA's recent action banning pesticide application in certain areas, numerous pending NPDES and other permit actions, and the Regional Board's own Groundwater Protection Strategy, which has been in development for several years and thus, require analysis with the current project.

45-3

In addition, even if it were deemed appropriate to disregard all the programs and projects that have the potential to contribute to cumulative impacts and consider the "cumulative impacts" of the program standing alone, the DPEIR has not done this. As explained above, the DPEIR does not analyze the impacts associated with Alternative 6; it makes no attempt to evaluate what effects will result if those program components are implemented in conjunction with each other. Thus, even if it were sufficient to limit the scope of the cumulative impacts analysis to the program alone, the DPEIR's approach leads to a failure to analyze – and a deliberate understating of – the project's cumulative impacts.

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> C. Alternative 1 Does Not Accurately Represent the "No Project" Scenario; Continuation of the Existing ILRP Would Be a Project Subject to CEQA, Not the "No Project" Condition

The DPEIR claims that Alternative 1 constitutes the "No Project" Alternative, which the DPEIR defines as "full implementation of the present program." This description of Alternative 1 is misleading. In reality, the DPEIR does not include a true "No Project" Alternative that represents the outcome absent any Regional Board action.

"The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, . . . as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (State CEQA Guidelines, § 15126.6(e)(2).) When the existing conditions include implementation of a program or rule that will expire unless some affirmative action is taken, the "No Project" scenario must consider the expiration of that program or rule and its associated ramifications. (See, e.g., Sherwin-Williams Co. v. S. Coast Air Quality Management Dist. (2001) 86 Cal.App.4th 1258, 1280 [SCAQMD properly defined the "No Project" scenario as "not adopting the proposed amendments to Rule 1113, but instead allowing the expiration of the current product variances for some of the coating categories, and maintaining the current version of Rule 1113 as amended by a 1990 court order"].) In contrast, when an agency must act affirmatively to extend an existing program or rule, that itself is a project, that must be analyzed under CEQA. (Sunset Sky Ranch Pilots Assn. v. County of Sacramento (2009) 47 Cal.4th 902, 909 [county's decision not to renew a conditional use permit that was expiring is not a project under CEQA, but the renewal of the permit would be].)

Here, the "No Project" Alternative should reflect the expiration of the existing waiver program on June 30, 2011. (See Coalition Group Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, Order No. R5-2006-0053, at p. 17 (2006 Conditional Waiver). Pursuant to Water Code section 13269, the 2006 Conditional Waiver remains in place only if it is affirmatively renewed by the Regional Board. (Wat. Code, § 13269(b)(1).)

The lack of an accurate "No Project" Alternative constitutes a critical flaw for the DPEIR; the "No Project" Alternative is a mandatory component of the EIR process. The purpose of this

Ms. Megan Smith Comments on the Draft Program EIR for Central Valley ILRP September 28, 2000 Page 5

requirement is "to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." (State CEQA Guidelines, § 15126.6(e)(1).) In this case, no such comparison is possible because the "No Project" Alternative is fundamentally inaccurate.

45-4 cont'd

D. The Baseline Conditions are Misrepresented, Therefore the Entire Environmental Analysis is Tainted

The Environmental Setting fails to describe accurately the existing environmental conditions, even at a programmatic level. "Knowledge of the regional setting [of the project] is critical to the assessment of environmental impacts The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." (State CEQA Guidelines, § 15125(c).) With that end in mind, the DPEIR "must include a description of the physical environmental conditions in the vicinity of the project, . . . from both a local and a regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (Id. at § 15125(a).)

45-5

First, the "Existing Setting" chapter, by its own admission, is incomplete. For example, the description of the existing conditions related to surface water makes no mention of the amount of surface water currently being diverted or the amount being used for irrigation by participants in the Irrigated Lands Regulatory Program (ILRP). Likewise, there is no indication of how much water is returned to stream systems after agricultural use, and how much of that water is derived originally from groundwater basins or surface water sources. Without this information, it is not possible to determine whether the proposed new regulatory program will cause significant impacts on water supplies, stream systems, or the flora and fauna dependent on those systems.

The DPEIR attempts to overcome the gaps in the "Existing Setting" chapter by adding a discussion of environmental setting to each of the impact analyses. This is confusing to the reader because these supplemental discussions of the existing setting are not entirely consistent with the description provided in the "Existing Setting" chapter. In addition, the supplemental discussions in the impact analyses are improperly condensed. For example, in

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the Vegetation and Wildlife Section (section 5.7), the agricultural lands environmental setting of consists of three paragraphs for over 7 million acres of irrigated agricultural land in the Central Valley. Considering the diversity and value of varying vegetation and wildlife throughout the Central Valley, a three-paragraph summary cannot establish the existing environmental setting.

In this case, it is improper for the DPEIR to rely on the "No Program" Alternative to represent the existing baseline conditions. As explained above, the "No Program" Alternative misstates what will occur absent any Regional Board action. Because neither this nor any of the other attempts in the DPEIR to describe the environmental setting is legally adequate, the DPEIR lacks any accurate baseline against which to judge the environmental impacts of the proposed program.

45-5 cont'd

E. The DPEIR Fails to Evaluate the Program's Reasonably Foreseeable Direct and Indirect Effects on the Environment

"In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project." (State CEQA Guidelines, § 15064(d).) "An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment." (Id. at § 15064(d)(2).)

45-6

The DPEIR fails to achieve this directive. For example, the DPEIR acknowledges that, under the alternatives analyzed, the higher cost of irrigation would result in less water being used and some land going out of agricultural production. However, the DPEIR's analysis stops there. It does not consider what impacts will be caused by the reasonably foreseeable outcome of less irrigation, such as less water returning to stream systems and diminished flows at certain times of year, and less irrigation water reducing the amount of groundwater recharge that would otherwise occur. This is of considerable note in the San Joaquin Valley where many of the surface water delivery systems were built with the intent to increase local groundwater basin recharge. In many groundwater basins within the Central Valley, flood irrigation is responsible for a significant portion of the groundwater recharge to those basins. Numerous entities rely on

Ms. Megan Smith. Comments on the Draft Program EIR for Central Valley ILRP September 28, 2010 Page 7

that recharged groundwater to meet their water supply needs, including urban agencies, private of domestic users, industry, and agriculture. Less irrigation could result in significant environmental impacts, and a discussion of those potential impacts is completely absent from the DPEIR. In addition to direct groundwater impacts, discharge to waterways from the groundwater basin could also decrease, potentially resulting in reduced flows that may constitute a direct change in the environment; this possibility is not considered by the DPEIR. Finally, it is reasonably foreseeable that reduced irrigation could have other indirect environmental impacts. Reduced groundwater availability may require the installation of dedicated recharge basins or injection wells, or force third parties who rely on groundwater recharge to procure alternative supplies in the absence of the previously available groundwater. Such reasonably foreseeable consequences are not considered in the DPEIR, rendering the analysis of foreseeable consequences deficient.

45-6 cont'd

In addition to the potential reduction in irrigated acreage, changes in irrigation practices, and specifically the use of pressurized systems, can have a whole host of environmental impacts that were not considered in the DPEIR. For example, the DPEIR indicates that field preparation activities would not substantially increase because of changes in management practices. (See Table 5-5-1.) In reality, the installation of pressurized systems would result in a significant increase in fieldwork that includes but is not limited to the construction of pumping facilities, filtering equipment, and trenching and laying of pipes. These changes could have direct impacts on air quality, an environmental impact not discussed in the DPEIR. In addition, pressurized systems require additional energy to operate which would similarly result in potential impacts to air quality.

45-7

Similarly, the DPEIR acknowledges that the program will result in the conversion of agricultural lands to other uses, but it fails to analyze the reasonably foreseeable impacts associated with that conversion, such as increased valley temperatures (see Climate Change comments, below), and conflicts with existing land use regulations and zoning (see Land Use comments, below). All of these direct and indirect impacts resulting from the implementation of the program must be analyzed in the DPEIR.

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F. The DPEIR Understates the Program's Potential Impacts on Land Use

A draft EIR must "discuss any inconsistencies between the proposed project and applicable general plans and regional plans," including habitat conservation plans and natural communities conservation plans. (State CEQA Guidelines, § 15125(d).) While the DPEIR acknowledges the requirement to evaluate its consistency with General Plans and Habitat Conservation Plans (HCPs), it does not attempt to analyze these impacts even in a qualitative manner. The DPEIR's characterization as a programmatic document does not wholly excuse undertaking the required environmental analysis. The DPEIR should evaluate the extent to which adopted General Plans within the program area designate agricultural land uses that would be diminished by the increased irrigation costs imposed by the program and the resulting loss of agriculture. Likewise, the DPEIR must discuss whether and how adopted HCPs in the program area rely on agricultural land uses and how the increased irrigation costs imposed by the program, and the resulting loss of agriculture, would affect those plans.

45-9

Even more egregiously, the DPEIR fails to analyze the program's land use impacts. The DPEIR acknowledges that agricultural lands are a resource that must be analyzed under CEQA; also, it admits that many jurisdictions have adopted land use plans, regulations, and zoning ordinances to protect agricultural uses. Yet the DPEIR completely fails to analyze, even at a programmatic level, whether the program will conflict with any of these land use plans, regulations, or zoning ordinances. Again, the DPEIR's status as a programmatic document is not an excuse to omit any discussion of these potentially severe impacts.

45-10

G. The DPEIR's Conclusions Regarding Global Warming Are Not Supported by Substantial Evidence

The conclusions drawn in an EIR must be supported by substantial evidence. The DPEIR's climate change analysis fails to meet this standard, as it relies on argument and speculation rather than the best available evidence. While this is an evolving area of science, and there may not be much evidence available, the lead agency must use the best evidence available to it to inform its analysis. If there is any substantial evidence to support the DPEIR's conclusion that irrigating agricultural lands causes climate change, it is not contained in the DPEIR, nor does the DPEIR cite it.

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Here, the best available evidence is a 2007 study, which indicates that agricultural irrigation practices in the Sacramento/San Joaquin Valley cause the mean temperature in summer months to drop, even as greenhouse gas emissions drive temperatures upward. (Irrigation cooling effect: Regional climate forcing by land-use change, Geophysical Research Letters, Vol. 34, L03703 (Feb. 7, 2007) (Attachment 1).) One of the authors of the study, Professor Lara Kueppers, affirms, "activities related to agriculture, forestry and development do matter to the climate." As Professor Kueppers states, "If we don't consider what we're doing to the area by urbanizing, which removes farmland that has a cooling effect, we could very well end up with a much hotter Central Valley." This evidence suggests that any program such as the ILRP, which the DPEIR concedes will have the effect of removing some land from irrigation, will cause increased climate change impacts in the Central Valley. While it may not be possible to quantify precisely those impacts at this time, they must be disclosed, at least at a qualitative level.

45-11 cont'd

In addition, the DPEIR fails to account for the effects of new management practices on energy demand, which would in turn affect air quality, greenhouse gas emissions, and ultimately climate change. As noted in our comments regarding the DPEIR's failure to assess adequately the true impact of the long-term ILRP on the environment, the installation of pressurized systems would result in a significant increase in construction activities in the short term and increased energy consumption in the long term, both of which could contribute to an increase in greenhouse gas emissions. This increase could have a direct impact on climate change, yet it was not discussed or analyzed in the DPEIR, even in a qualitative fashion.

45-12

H. The DPEIR Arbitrarily Imposes Mitigation Measures That May Not Be Legally Imposed

CEQA Guidelines state that mitigation measures that cannot be legally imposed, need not be proposed or analyzed. (State CEQA Guidelines, § 15126.4(a)(5).) The "Mitigation and Improvement Measures," for vegetation and wildlife resources identified in section 5.7.6 (pp. 5.7-50) propose mitigation measures that would require avoidance of sensitive biological resources, additional CEQA review if such resources cannot be avoided, and would force agricultural landowners to conduct a delineation of affected wetlands "prior to implementing any

⁽See http://www.ucmerced.edu/news_articles/02082007_professor_s_research_shows.asp.).

Ms. Megan Smith Comments on the Draft Program EIR for Central Valley ILRP September 28, 2010 Page 10

management practice that will result in the permanent loss of wetlands." In delineating a wetlands, the mitigation requires it to be conducted in accordance with current U.S. Army Corps of Engineer (Corps) methods. The mitigation measures proposed here cannot be legally imposed in all cases.

45-13 cont'd

First, we question the requirement to undertake additional CEQA review when an adverse effect on a sensitive biological resource cannot be avoided. While we agree that impacts to such sensitive areas should be avoided, we are concerned that as proposed the mitigation measure imposes a new CEQA requirement on agricultural landowners and operators when no discretionary project may actually be triggered by the action. For example, in some jurisdictions, and depending on the construction activity, grading permits may be required. However, in many jurisdictions, the act of constructing a management practice may not rise to the level of activity subject to a grading permit. Further, the implementation of management practices at the farm level, which would be encouraged in area-wide waste discharge requirements (WDRs), is not subject to a discretionary approval by the Regional Board. Thus, there is no universal trigger for additional CEQA review. At most, such review may be necessary if the construction activity constitutes a discretionary project under the local jurisdiction's authority. To avoid confusion, we suggest that this mitigation measure be revised to clarify that additional CEQA review is only necessary if a discretionary project for approval has been triggered by the construction activity.

45-14

Next, we are concerned that the mitigation measure for wetland loss is too broad and fails to recognize that implementation of management practices is most likely to occur on irrigated agricultural land currently in production. The Regional Board does not have the authority to order the delineation of affected wetland areas identified as converted croplands because such agricultural areas do not fall within the jurisdiction of the Corps. The Clean Water Act (CWA) and the authority of the Corps to perform operations under the CWA apply only to "waters of the United States." The regulatory definition of waters of the United States specifically states that, "Waters of the United States do not include prior converted cropland" (33 C.F.R. § 328.3(a)(8).) Furthermore, guidance issued by the U.S. EPA in 2008 clarifying CWA jurisdiction following the Supreme Court case of Rapanos v. United States, 547 U.S. 715 (2006) made no mention of and had no effect on this exemption for ongoing agricultural operations. As such, cropland continues to be exempt from the Corps' CWA.

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jurisdiction. If it is not within the authority of the Corps to conduct a delineation because the area to be examined is not a water of the United States as defined by federal regulation, then it follows that it is not within the authority of the Regional Board to order individual agricultural operations to undertake such an action as a mitigation measure.

45-15 cont'd

II. Draft Staff Report

A. A. Application of State's Anti-Degradation Policy

The Draft Staff Report incorrectly characterizes application of the state's antidegradation policy. Specifically, the Draft Staff Report implies that application of the antidegradation policy is triggered merely because the long-term irrigated lands program will authorize agricultural discharges to surface and groundwaters to continue. (See Draft Staff Report at p. 63 ["From a programmatic standpoint, irrigated land waste discharges have the potential to cause degradation of surface and groundwater, and the requirements of the antidegradation policies must be followed."].) However, this characterization and application of the anti-degradation policy to the proposed long-term irrigated lands program is inappropriate. As indicated in State Board orders and guidance documents, the anti-degradation policy is triggered when the Regional Board is taking an action that may cause degradation in highquality waters. It is not applicable if the Regional Board's action will not cause degradation.

45-16

For example, State Board Order No. WQ 86-17 clearly states, "[b]efore approving any reduction in water quality, or any activity that would result in reduction in water quality, the Regional Board must first determine that the change in water quality would not be in violation of State Board Resolution No. 68-16 or the federal anti-degradation policy." (In the Matter of the Petition of Rimmon C. Fay, Order No. WQ 86-17, emphasis added.) More recently, the State Board said that, "[t]he federal anti-degradation policy and State Water Board Resolution 68-16 apply to reductions in water quality." (In the Matter of Petitions for Reconsideration of Water Quality Certification for the Re-operation of Pyramid Dam for the California Aqueduct Hydroelectric Project Federal Energy Regulatory Commission Project No. 2426, Order WQ 2009-0007 (Pyramid Dam) at p. 12.) By its own admissions in the DPEIR, the Regional Board anticipates that implementation of any of the alternatives analyzed, except for perhaps Alternative 1 as it applies to groundwater, will improve water quality. Thus, because

Ms. Megan Smith Comments on the Draft Program EIR for Central Valley ILRP September 28, 2010

adoption of the long-term program will not result in a reduction in water quality, the federal and \$\frac{1}{45-16}\$ state anti-degradation policies are not applicable.

cont'd

Furthermore, even though application of the anti-degradation policies may be triggered for changes that have already occurred, such an application only occurs when the changes have not already been reviewed for consistency with those policies. (See Pyramid Dam at p. 12.) That is not the case here. The Draft Staff Report incorrectly states, "unpermitted degradation has occurred since 1968." (Draft Staff Report at p. 61.) In fact, irrigated agricultural has been subject to Regional Board regulation since adoption of the original waivers in 1982 when the Regional Board adopted Resolution No. 82-036. To adopt waivers pursuant to Water Code section 13269, the Regional Board was required to find that the waivers were consistent with any applicable regional water quality control plan (i.e., Basin Plan). The water quality control plans for the Central Valley region (for both the Tulare Lake Basin and the Sacramento and San Joaquin River Basins) have included and contained State Board Resolution 68-16 since the plans were adopted in 1975. Thus, to adopt the waivers, the Regional Board needed to find that adoption of the waivers was consistent with Resolution 68-16. In other words, discharges from irrigated agriculture were found to be consistent with Resolution 68-16 in 1982, and therefore only a Regional Board action that would degrade water quality is subject to the state and federal anti-degradation policies. As already indicated, the proposed action would not degrade water quality but would improve water quality.

45-17

Even if implementation of the long-term ILRP does trigger application of anti-degradation policies, staff's recommendation that all operations subject to the program be subject to the best practicable treatment or control (BPTC) standard is entirely inappropriate. The BPTC standard only applies where there is potential degradation of high quality waters of the state. As articulated by the State Board, "[i]n order to determine whether the allowance of limited degradation is consistent with [the 68-16] provisions, we must first see if existing water quality is better than water quality established in policies." ([In the Matter of the Petitions of the County of Santa Clara, Santa Clara Water District, City of San Jose, Citizens for a Better Environment and Silicon Valley Toxics Coalition To Review Issuance of Waste Discharge Requirements of Hazardous Materials Cleanup to International Business Machines Corporation,] WQ Order 1986-8, at pp. 28-29.) This is a fact specific determination that the Regional Board must $\sqrt{}$

make, and cannot be broadly applied to all waters governed by the long-term ILRP in the absence of any inquiry into whether the affected water is considered high quality.

In spite of this threshold requirement, the Draft Staff Report concludes that because of the large number of water bodies within the scope of the long-term ILRP, "determination of a baseline water quality is a near impossible task" (Draft Staff Report at p. 60). Based on the "complexity" of determining the quality of waters covered by the program and the "significant variation in conditions over the broad areas covered by the program," staff's solution is to forego an individual assessment and simply apply BPTC to all irrigated lands. Essentially, the "long-term ILRP assumes that at least some of the waters into which agricultural discharges will occur are high quality waters" (id. at p. 63) and therefore BPTC should apply to all discharges. This assumption is contrary to the plain language and intent of the anti-degradation policy and the BPTC requirement.

45-18 cont'd

Staff's own conclusions do not indicate that all or even most of the waters affected by the program are high quality waters that would be subject to the BPTC standard. By its own admission in the DPEIR, the Regional Board acknowledges that "many water bodies in the Central Valley Region are already impaired for various constituents associated with irrigated agricultural activities . . ." and that under the long-term ILRP "multiple water bodies are affected by various discharges, some of which may be high quality waters and some of which may by contrast have constituents at levels that already exceed water quality objectives." (Draft Staff Report at pp. 61, 63.) The potential complexity of a more individualized assessment does not abrogate the Regional Board's responsibility for making determinations as to the status of a water body as high quality or not. Applying a blanket rule for all waters covered by the program, simply because it would be too time consuming or difficult to make individualized determinations to ascertain which waters would fall under the BPTC standard, is entirely inappropriate.

B. Coordination of Groundwater Programs (pp. 79-80)

In its discussion with respect to other regulatory programs, the Draft Staff Report indicates that staff intends to coordinate its efforts with the Department of Pesticide Regulation's (DPR) groundwater protection program. First, this essential coordination effort is buried in a Draft Staff Report's general description of other regulatory programs. To the extent that the

Regional Board intends to coordinate with DPR, the coordination element should be clearly identified as part of the RPA. That currently is not the case.

Second, the Regional Board's proposed method for coordination is not appropriate. The Draft Staff Report proposes that where there is a reported detection of pesticides in groundwater, the long-term ILRP (i.e., the Regional Board) would immediately review data and inform growers of the need to implement management practices. We disagree with the implication that any "reported detection of pesticides in groundwater" calls for immediate notification and action by growers. Instead, the long-term ILRP should evaluate if the reported level of the pesticide in question exceeds applicable groundwater quality objectives, and if future uses of the pesticide will potentially cause the level of pesticide to exceed applicable objectives. Once it has been determined that growers are discharging pesticides to groundwater that exceed applicable water quality objectives, then it is appropriate if new or additional management practices are necessary.

45-19 cont'd

On another note, we encourage the Regional Board to coordinate its efforts with existing groundwater programs and not just DPR's. The Regional Board should expand on partnership opportunities that rely upon the appropriate local entities, and state agencies involved in groundwater monitoring and protection (Department of Water Resources, Department of Public Health, etc.). With the objective to compile, analyze, utilize existing groundwater data and protection programs, and identify gaps, prior to proceeding with the adoption, regulation, and enforcement upon potential dischargers of groundwater monitoring programs within the long-term ILRP. The appropriate local entities will vary throughout the Central Valley and may include agricultural coalitions, local public agencies, and integrated regional water management planning agencies. By coordinating efforts, the Regional Board can avoid duplicating and conflicting with other local and state programs that are already being implemented by others.

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Consistency With Non-Point Source Policy (pp. 107-114)

The Draft Staff Report identifies five key elements from the State's Non-Point Source Policy to determine if the five alternatives are consistent with the five key elements. With respect to key element number 4, we disagree with the Regional Board's assessment that Alternative 2 is only partially consistent. Key element 4 states that, "[a]n NPS control implementation control program shall include sufficient feedback mechanisms so that the

RWQCB, dischargers, and the public can determine whether the program is achieving its stated purpose(s), or whether additional or different MPs [management practices] or other actions are required." Alternative 2 does provide and include sufficient feedback mechanisms. As indicated, Alternative 2 includes monitoring provisions for both groundwater and surface water monitoring as well as tracking of management practices. (DPEIR at pp. 3-12 - 3-13.) The monitoring provisions for Alternative 2 clearly provide for a sufficient feedback mechanism.

45-21 cont'd

D. Economic Impacts and Draft Technical Memorandum Concerning the Economic Analysis of the ILRP

After examining the full economic analysis of the long-term ILRP, we are concerned that it fails to address a number of the costs, which will be incurred because of implementation of the RPA, or any of the alternatives. The economic analysis is inadequate in that it does not evaluate the potential for substantial costs that may be associated with practices compelled or prohibited by the various alternatives, including, but not limited to, nutrient management, irrigation practices, and the installation and operation of monitoring wells. The costs of these actions could be in the hundreds of millions of dollars, yet they are not substantially addressed by the economic analysis. Furthermore, the economic analysis contains several generalities and understated assumptions that prevent the reader from attaining a genuine picture of the actual costs and economic impacts of the various alternatives. For example, there is an assumption that growers will simply "find less expensive ways to modify their production practices" and therefore the analysis assumes economic impacts would be somewhat reduced. (Draft Economic Analysis at pp. 1-3.) The economic analysis also fails to estimate the admittedly understated economic impacts because of forward-linked effects, and contains an invalid estimate of the number of enrolled growers. These generalizations and faulty assumptions severely reduce our confidence in the overall reliability of the economic analysis.

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In addition, we are very concerned with the Draft Staff Report's failure to analyze the economic impact of staff's RPA. The Porter-Cologne Water Quality Control Act (Porter-Cologne) requires that both costs and economic impacts be considered when developing a new regulatory program for agriculture. (See Wat. Code, § 13141.) The Draft Staff Report acknowledges this requirement, and the DPEIR does attempt to analyze the economic impact and cost of the long-term ILRP. Unfortunately, it does so in the context of the individual of

alternatives, none of which represents the actual staff proposed alternative that has been a recommended for implementation.

Just as the cumulative impacts of the preferred alternative are not analyzed in staff's RPA, the economic impacts of the proposed staff alternative are not analyzed either. As noted earlier in our comments, because the staff alternative is actually a collection of other project alternatives, the DPEIR does not truly analyze the proposed project. In the same vein, without analyzing the actual proposed project, it is impossible for the Draft Staff Report to analyze the true economic impact of that project. The Draft Staff Report does attempt to assemble relevant pieces from Alternatives 2 and 4 to produce an estimated economic impact and cost. However, there is no indication that the independent economic analysis on which those estimates are based is susceptible to such an approach, nor does staff set forth any assumptions that might justify the use of such a technique. Assumptions contained in the actual independent economic analysis may not remain true if variant pieces of each alternative are selectively taken out and subsequently reassembled, as is the case in the RPA. Taking isolated figures from an economic analysis that was designed to summarize the ramifications of different alternatives in their entirety may not accurately reflect the true economic impacts of the combined aspects of the new alternative. The DPEIR should have contained a full economic impact analysis of the RPA not based exclusively on the estimated costs of pieces assembled from the other alternatives. The DPEIR fails to do so, and therefore there is no basis on which to calculate accurately the economic impact or costs of the RPA.

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In addition, the failure of the Regional Board to adequately describe and analyze a no project alternative is simultaneously a failure to represent the economic impacts of that No Project alternative. As noted in our earlier concerns, Alternative 1 does not adequately represent the No Project scenario because continuation of the existing waiver program would additionally be a project subject to CEQA. The economic impact analysis notes that "full implementation of Alternative 1 is considered the continuation of the existing program" yet this does not take into account the fact that the current waiver program would expire absent Regional Board action. Consequently, there is no consideration of the economic impact of the true No Project alternative, the analysis of which would provide a more adequate baseline for comparison purposes.

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Aside from the more general deficiencies in the economic impact analysis contained in the Draft Staff Report, there are specific economic impacts that do not receive a thorough analysis. Specifically, the recommended shift to pressurized systems would require significant infrastructure changes for irrigation districts, including the construction of new pipelines and modification or construction of flow regulating structures and turnouts. This would require significant capital investment from growers and irrigation districts, and increased costs to the irrigation districts could ultimately be passed on to growers in the form of increased water rates. In addition, the DPEIR places the burden on growers and third party groups to prove that BMPs for groundwater quality protection and cleanup are effective through monitoring and assessment without taking into account the impact and cost of such efforts. Without considering these costs, the Draft Staff Report fails to analyze the actual costs and economic impact of the proposed project as it is required to do. Finally, the staff alternative indicates that the Tier 2 groundwater monitoring would have to both establish a baseline and trend and identify management practices. (Draft Staff Report at p. 158.) However, the potentially significant costs of undertaking this activity are also not contained in the economic analysis.

III. Recommended Program Alternative

A. Adoption of Individual WDRs Will Require Compliance With CEQA

The adoption of the eight to twelve WDRs discussed in Staff's recommended program alternative is a "project," as defined in CEQA. (Pub. Resources Code, § 21065.) CEQA and its requirements apply to discretionary projects proposed by public agencies. (Id., § 21080(a).) The Regional Board's approval of WDRs is a discretionary decision, and therefore it is subject to CEQA. Thus, when the Regional Board goes to adopt the eight to twelve individual WDRs, it will be required again to consider the environmental impacts associated with adoption of the individual WDRs. To the extent the Regional Board intends to rely on the DPEIR for its determination of environmental impacts, the DPEIR provides insufficient analysis and is only applicable on a limited basis.

B. Timeframe for Implementation is Aggressive

We are concerned that the timeframe for implementation outlined in the RPA is far too aggressive and operations subject to the long-term ILRP may be unable to meet the

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recommended deadlines. (PRA at p. 144.) First, the expansion from regulation of surface water only to surface and groundwater will be a struggle for each coalition to achieve, and it will take more than three months for coalitions and growers to analyze whether compliance is feasible. Furthermore, the Draft Implementation Timeframe allots a mere 30 months before new participants are enrolled in the program. Thirty months is an extremely optimistic estimate for the coalitions and the Regional Board to be able to convince growers who have never been part of the waiver that they need to enroll in the program, if they are in fact subject to its requirements. Finally, an anticipated full implementation deadline of three years is simply too aggressive. (See Section G.b. below, [Three years is needed to allow for the development of groundwater quality management plans.].) Since fall of 2008, the Stakeholder Advisory Workgroup has been meeting and providing feedback on issues pertaining to the development of a long-term ILRP. Even now, the EIR process is ongoing and a full hearing before the Regional Board on the long-term ILRP is tentatively scheduled for the summer of 2011. It is worrisome that a program requiring three years of stakeholder input, comments, and review is recommended for full implementation in such a short timeframe. Furthermore, the existing conditional waivers have been the controlling standard for such an extended period, a full transition to a new program in just three years may prove to be unworkable. It is overly aggressive to expect that the coalitions and the Regional Board can fully implement a new longterm program, which includes groundwater, in the three-year period.

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C. Adoption of Conditional Prohibition of Discharge Inappropriate

As has been indicated by several entities throughout this process, we are concerned with the Regional Board's intent to adopt a conditional prohibition into both Basin Plans. According to Regional Board staff, the intent is to provide the Regional Board with more direct enforcement authority over individuals that are not participating in the LTILRP. While the agricultural organizations are supportive of Regional Board efforts to utilize its enforcement authority appropriately to ensure equal and fair application of the LTILRP over all persons subject to its requirements, we are concerned with the use of a Basin Plan prohibition in this manner. The prohibition provisions in Porter-Cologne were included to authorize regional water quality control boards to determine that the discharge of certain types of waste or certain areas should be prohibited to protect water quality. (See Wat. Code, § 13243.) It was not included to circumvent notification requirements for bringing enforcement actions against non-compliant.

individuals. Furthermore, all persons should be afforded appropriate due process rights, including notification regarding non-compliance before being subject to administrative civil penalties. In addition, adequate enforcement tools appear to be in place without invoking prohibitions of discharge. Lastly, we observe that (1) a stated objective of the LTILRP is to avoid economic impact on agricultural operations, and that (2) a prohibition of discharge would severely impair the ability of most farms to function. This unnecessary provision therefore is out of keeping with the objectives of the LTILRP, as stated in this same document. As such, we continue to be opposed to this provision.

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Presumption That All Irrigated Agriculture Creates a Discharge of Waste is Inappropriate

The Draft Staff Report inappropriately presumes that all irrigated agriculture creates a discharge of waste. The Draft Staff Report states that "[b]ecause all irrigated agricultural operations could affect groundwater quality, they have been considered in the scope of the long-term ILRP." (Draft Staff Report at p. 143.) The Draft Staff Report makes this presumption in spite of the fact that staff acknowledges there is only a possibility that individual irrigated lands actually create a discharge of waste. (See Draft Staff Report at p. 143 ["Operations associated with irrigated agriculture . . . may leach waste into groundwater, potentially causing degradation, or causing or contributing to exceedances of water quality objectives."].) While the Regional Board may have the authority to regulate irrigated agriculture that creates a discharge of waste under the long-term ILRP, the Regional Board does not have unlimited regulatory authority to regulate agricultural practices that do not create such a discharge. One fundamental limitation on the Regional Board's authority to regulate irrigation practices is that the activity must result in a "discharge of waste" that impacts water quality. Simply because it would be "difficult to determine" whether individual irrigated lands are creating a discharge of waste does not eliminate the Regional Board's statutory obligation to regulate only activities that actually create a discharge of waste. While a blanket determination that all irrigated agriculture creates a discharge of waste may be convenient for regulatory authority purposes, it is an inaccurate presumption with no evidentiary support. Presuming all irrigated agriculture creates a discharge of waste simply because some irrigated agriculture may potentially or could possibly affect water quality is entirely inappropriate and does not fall within the Regional Board's authority to regulate only those irrigation practices that result in a "discharge of waste."

In addition, this improper presumption is coupled with an improper shift in the burden to the landowner or operator to disprove that presumption. Water Code section 13267 authorizes the Regional Board to require reports from those who discharge waste, but requires that the Regional Board "provide the person with a written explanation with regard to the need for the reports" and "identify the evidence that supports requiring that person to provide the reports." In contrast, the Draft Staff Report makes a broad assumption that all irrigated agriculture creates a discharge of waste, subjecting operations to various reporting requirements without providing a written explanation or supporting evidence, even while acknowledging that some of those operations do not create a discharge of waste.

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E. Third-Party Organizations Not Appropriate Entities to Identify Potential Impacts to Sensitive Areas

We are concerned that the Draft Staff Report places an impractical burden of identifying potential impacts to sensitive resources on third party organizations. The Draft Staff Report states, "Where an irrigated agricultural operation/third-party group determines that a proposed management practice/monitoring well may impact a sensitive resource, the ILRP will require" the individual or third party to mitigate the effects or come up with an alternative course of action. (Draft Staff Report at p. 172.) With this language, the RPA implies that the third-party organizations will be reviewing and approving all management practices, and their environmental settings for every covered coalition member. Such a requirement and expectation of the third-party groups is unrealistic and therefore the language should be modified.

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F. Determination of Impact to Sensitive Resources is Cost Prohibitive

The RPA includes a number of regulatory requirements for individual agricultural operations. One of the requirements would require individual agricultural operations to determine if a proposed management practice will impact a sensitive resource. This requirement is directly linked to the mitigation measures described in the DPEIR and discussed previously. As indicated above, the mitigation measures, which would require agricultural operations to hire consultants to conduct wetlands and habitat delineations, are costly and impractical. As a result, the mitigation measures are infeasible and not appropriate for application to agriculture. Further, ongoing agricultural operations on already converted.

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cropland are exempt from Corps requirements and, therefore, requiring such delineations are outside the Regional Board's authority. While we support and encourage avoidance of sensitive resources, we cannot support the extreme costs that would be placed on individual growers for delineating sensitive resources, except as already required by other environmental statutes and regulations.

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G. As Described, No Areas Would be Eligible to be Classified as Tier 1

As a preliminary matter, we encourage the Regional Board to revise the Tier 1 and Tier 2 classifications to indicate clearly that the designation of water bodies between Tier 1 and Tier 2 must be limited based on the use of scientific, quality-controlled date. Further, the designations between Tier 1 and Tier 2 should be clearly defined within the RPA. We recommend that the primary designation for Tier 2 surface water should be management plan triggers, and Tier 2 groundwater designations should be initially limited to DPR groundwater management zones, and to other areas where nitrates or other constituents are known to affect drinking water quality. All other waters should remain in Tier 1 until water quality data indicates otherwise.

1. Tier 1

According to the RPA, a major factor in determining if an area is classified as Tier 1 (i.e., low-priority) or Tier 2 (high priority) depends on if irrigated agricultural operations are identified as causing or contributing to a water quality problem to surface and/or groundwater. Based on this priority factor, it appears that the Regional Board would need to assess all individual agricultural operations in an area to determine if each individual operation is eligible to be classified as Tier 1. Such an approach is infeasible, which will mean that all areas will be classified as Tier 2.

Further, in determining what is classified as Tier 1 or Tier 2, the RPA provides no specificity with respect to situations where most water quality standards are met, except for one or two. For example, in some areas, water quality standards are met all parameters except pH, dissolved oxygen, and/or bacteria. When dealing with these types of constituents of concern, it is very difficult to ascertain the actual cause of exceedances and even more difficult to show that the exceedances are caused by irrigated agricultural operations. In many cases,

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exceedances for these constituents of concern are caused by natural and other non-agricultural sources. However, based on the language in the RPA, it is possible that areas with no other water quality exceedances, except those mentioned above, will be classified as Tier 2 areas and therefore be subject to more stringent reporting and monitoring requirements as compared to those in Tier 1. To avoid such consequences, we encourage that the RPA be amended to recognize that exceedances of these types of constituents will not trigger significant monitoring and regulatory compliance burdens as is required in Tier 2.

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Tier 2 (i.e., high-priority areas)

a. Surface Water

The RPA would require the development of a surface water quality management plan² (SQMP) for any parameter that exceeds water quality objectives two or more times in a threeyear period. The exceedances trigger for the development of SQMPs, as expressed here, is not an appropriate trigger for many parameters. This requirement fails to take into account the purpose of the water quality objective at issue and the beneficial use for which it is designed to protect. More specifically, the two or more exceedances in three years is a derivative from U.S. EPA's Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and their Uses (1985 Guidelines). Thus, at most, this standard should be applied where there are two or more exceedances of water quality objectives designed to protect aquatic life beneficial uses. It is inappropriate to use this standard to trigger implementation of SQMPs where there are exceedances of water quality objectives designed to protect non-aquatic life beneficial uses. For example, many water quality objectives are for the protection of human health over a long-term period of exposure. Thus, two exceedances in three years do not necessarily mean that the beneficial use in guestion is being impaired. Another example is salts. Salt objectives are usually set to protect agricultural beneficial uses. Crop impacts from salt are based on salt build up over time-not acute impacts. Thus, the requirement for a SQMP based on just two exceedances is unreasonable. This arbitrary requirement results in the unnecessary expenditure of time and resources on constituents that are not of concern considering the purpose of the objective. (RPA at p. 153.)

² The SQMP would need to be developed for the watershed represented by the monitoring site.

Further, the RPA states that under the SQMP, irrigated agricultural operations are required to implement management practices to achieve BPTC. This requirement is inconsistent with the state's anti-degradation policy. As stated previously, Resolution 68-16 applies only to high-quality waters (i.e., those achieving water quality objectives). BPTC, which is part of Resolution 68-16, applies only when there is a discharge to high-quality water. By virtue of the fact that a SQMP is required, the Regional Board has already determined that the water body is not high-quality water for the parameter in question, and therefore BPTC is not required.

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b. Groundwater

In general, we are concerned with the requirement for third-party groups to develop and submit groundwater quality management plans (GQMPs) within 18 months of adoption of the individual area/coalition WDR. Considering the need to collect and analyze available information to identify constituents of concern and areas of concern, 18 months is not sufficient time to collect and evaluate the available information. Instead, we recommend that the RPA allow three years for the development of GQMPs in order to allow for the development of local programs to address prioritized groundwater quality problems. Further, and as discussed previously, the RPA must allow for the use of existing groundwater data to prioritize necessary and appropriate actions for addressing groundwater quality problems at the local level. Without these foundational steps, the requirements within the ILRP may be duplicative and conflict with other local and state programs managing groundwater.

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More importantly, we are concerned that the Regional Board's assessment and definition of groundwater is the first encountered groundwater. Although not specifically discussed in the DPEIR or the RPA, most beneficial uses of groundwater do not actually occur in the first encountered groundwater. For example, municipal use of groundwater typically occurs in groundwater that is at least 100 feet below surface, and not 10 feet. However, tiers will be assigned based on the quality of water in the first encountered zone. The Draft Staff Report thereby makes an improper assumption that measuring discharge from irrigated lands covered by the long-term ILRP at the shallow first encountered groundwater level will provide an accurate picture of actual impact on the beneficial uses in that area. We do not believe this determination to be appropriate or supportable under Porter-Cologne.

In addition, the proposed measurement of groundwater in the first encountered zone fails to take into account the assimilative capacity of soil in irrigated lands governed by the longterm ILRP. There is considerable treatment that occurs as water makes its way through the soil profile, and in many areas, it can be reasonably expected that there will be significant dilution and attenuation of constituents prior to reaching any groundwater extraction point. Furthermore, because the lands covered by the long-term ILRP are so varied in soil composition, the assimilative capacities of those lands also vary, and indiscriminately using first encountered zone measurements may produce inconsistent and inaccurate results; the Draft Staff Report fails to consider this possibility. Because there is a significant possibility that a dilution of constituents will occur before discharge reaches the level at which it is put to beneficial use, and a substantial likelihood that groundwater data collected at the first encountered zone will bear little relationship to the actual impact on beneficial uses in that area, determining compliance with water quality objectives in the first encountered zone is inappropriate. The Draft Staff Report's failure to consider the potential variances in assimilative capacity of irrigated agricultural lands, the blanket use of a first encountered zone measurement to determine groundwater quality, and the Report's failure to include the possibility of measuring at mixing zones is inappropriate and potentially unsupportable under Porter-Cologne.

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Periodic Review of Approved SQMPs/GQMPs

The RPA would require review of SQMPs at least every two years and GQMPs every five years. Review of the SQMPs/GQMPs would include third-party groups as well as other interested parties. In general, we do not oppose periodic review of SQMPs/GQMPs with Regional Board staff. However, we believe it is unnecessary for this to review process to include "other interested parties." (Draft Staff Report at p. 154.) The Regional Board represents the public interest and therefore it is unnecessary for other stakeholders to participate in reviews at this level. Further, such a requirement is unprecedented and has no legal basis. SQMPs/GQMPs are designed to identify management practices that would be appropriate and applicable for the constituent of concern and the watershed in question. Thus, Regional Board review on the sufficiency of SQMPs/GQMPs is appropriate. While the SQMPs/GQMPs are public documents once submitted to the Regional Board, they are not the type of documents that require Regional Board approval and therefore they are not subject to formal public review and comment.

Although not specified in the RPA, we anticipate the development of SQMPs/GQMPs would be required pursuant to the Regional Board's authority under Water Code section 13267. This section of the Water Code allows the Regional Board to require the submittal of technical and monitoring reports as long as the burden of preparing the report bears a reasonable relationship to the need for the report and the benefits to be obtained. Nothing in section 13267 requires that these reports be subject to public review or comment, or be open for discussion with other interested parties.

In all of the Regional Board's other programs, individual dischargers are not required to have management plans reviewed periodically by other interested parties. Typically, when dischargers are required to submit special studies or management plans, the plan is submitted for Regional Board staff review and comment, revised based on Regional Board staff comments, and then implemented. At most, the municipal stormwater program requires that stormwater management plans be subject to public review, comment, and adoption by the Regional Board. However, this requirement for municipal stormwater management plans stems from federal NPDES permit requirements and is not applicable here.

Further, by allowing other interested parties to evaluate the sufficiency of SQMPs/GQMPs, the process may be stalled with protracted negotiations between all of the parties to determine what is sufficient. If other interested parties have concerns with the sufficiency of SQMPs/GQMPs, they may express their concerns to the Regional Board at any time without being a required entity in the periodic review process.

Individual Farm Water Quality Management Plans (FWQMPs)

The RPA proposes to require individual FWQMPs if objectives are not met, improvements do not occur within the approved time schedule for implementation, or where irrigated agricultural operations are not implementing requirements in SQMPs/GQMPs. Therefore, FWQMPs could be required for any and/or all agricultural operations in high-priority areas. By stating that such plans could be required in any of these situations, the RPA provides no time for SQMPs/GQMPs to be developed and implemented. Further, it undermines the compliance schedule provisions in the RPA because it allows the Regional Board to require FWQMPs even if the compliance period for the constituent of concern has not yet expired.

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e. SQMP/GQMP Requirements (Appendix D)

We are also concerned with some of the language and recommendations contained in Appendix D for the ILRP Surface and Groundwater Quality Management Plan Requirements. With respect to element 3, as we have stated previously, BPTC applies only to high quality waters. (See Resolution 68-16.) However, the SQMP/GQMP requirements would have coalitions ensure that all growers are implementing practices that achieve BPTC. If a SQMP is required, by definition, the water body is not high quality and BPTC is not triggered.

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Similar to our earlier comments that the Draft Staff Report makes an improper presumption that all irrigated agriculture creates a discharge of waste, Elements 4-9 of the proposed requirements fail to account for the possibility that irrigated agriculture may not be the predominant source of the identified exceedances. As a general qualification, the Requirements should state that only if irrigated agriculture is identified as the predominant source of the pollutant discharge should the Surface and Groundwater Quality Management Plan be required to: (4) identify practices to address the constituents of concern, (5) evaluate the effectiveness of management practices, (6) describe the grower outreach strategies, (7) track management practice implementation, (8) prepare a monitoring plan to track water quality, and (9) describe a schedule and milestones for the action taken. There is a real possibility that inputs from other point and non-point sources are contributing to the exceedances identified at monitoring sites, and identification of irrigated agriculture as the predominant source of the exceedances should be a prerequisite to taking the steps identified above.

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In addition, Element 5 notes that acceptable approaches to the evaluation of management practice effectiveness include field studies at representative sites. (Draft Staff Report at p. D-1.) We are concerned that this language could be interpreted to mean that only field studies are acceptable or that field studies represent the preferred approach by the Regional Board. To the extent that this section is susceptible to such an interpretation, we oppose the inclusion of that language in the Draft Staff Report. We are also concerned that Element 8 of the proposed GWQMP requirements could have serious cost implications. Specifically, a requirement that the GWQMP include "... other sites or a different depth to groundwater (e.g., monitor first encountered groundwater versus supply wells) or frequency of sample collection ... " could result in significant expense. Finally, we are concerned that there is no requirement or limiting language that states schedules and milestones described in ...

Element 9 of the GWQMP must be reasonable. Management practices may be difficult to adopt 4 and in some cases are highly dependant on funding. As such, schedules and milestones created because of this proposed element must be reasonable, and the language of Appendix D should be changed to reflect this reasonableness requirement.

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FWQMP Requirements (Appendix D)

As a preliminary matter, we must express concern with the standard established for approval of the FWQMP. Appendix D states, "at a minimum, plans would describe those practices needed or currently in use to achieve water quality protection." The language "to achieve water quality protection" implies that FWQMPs need to include practices that guarantee compliance with water quality objectives. As indicated previously, we do not believe this to be the appropriate standard. Instead, the goal and purpose of FWQMPs should be to control discharges of pollutants to the maximum extent practicable. This is consistent with requirements and standards imposed on municipal stormwater discharges.

The FWQMP would require information regarding irrigation methods, acreages, and crop types. While such requirements appear to be reasonable, they fail to take into consideration the dynamic nature of farming. At best, growers can provide general information with respect to acreages farmed and the types of crops generally grown each year; however, it is not possible to account for all potential cropping patterns the grower may utilize over the next five years in an FWQMP. Further, it would not be practical or feasible to require growers to submit new FWQMPs or amendments to FWQMPs whenever farming operations change. Likewise, it would be unreasonable and out of keeping with LTILRP goals to constrain farmers in their ability to respond to changing market conditions by altering, for example, crop choices in response to commodity price outlook.

To account for the variability and uncertainty associated with farming operations, we recommend that Appendix D be revised to require submittal of typical crop information for that agricultural operation. For example, where Appendix D would require "description of operations including number of irrigated acres, crop types, and chemical/fertilizer application rates and practices," we recommend instead that it require similar information as follows: description of

typical farming operations for the farming entity, including an estimate of irrigated acres, typical

crop types, typical crop rotations, and identification of typical chemicals and/or fertilizers used for the crops identified.

If FWQMPs are required, growers should only be required to identify potential conduits of which they have knowledge or are aware. Further, as currently proposed, the requirement is extremely broad. It suggests, for example, that growers can implement actions that will prevent any contamination from entering groundwater. While we agree that management practices should be implemented to control the discharge of pollutants to the maximum extent practicable, growers cannot provide absolute certainty that the implementation of certain practices will ensure that all potential conduits do not carry contamination to groundwater. Thus, the requirement in Appendix D should be revised to state as follows: (6) identification of any potential conduits to groundwater aquifers on the property known (e.g., active, inactive or abandoned wells, dry wells, recharge basins or ponds) and steps taken, or to be taken, to ensure all identified potential conduits do not carry contamination to control the discharge of pollutants to groundwater to the maximum extent practicable.

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Other concerns with respect to Appendix D are as follows:

Appendix D would require the FWQMP to include maps showing the location of
irrigated production areas, discharge points, and named water bodies. Similar to
comments expressed previously on the informational requirements, growers can
provide maps that depict typical operations. However, it is not possible to provide
maps that are not subject to change due to normal operational considerations. In
addition, growers can identify known discharge locations, if any exist, but may not be
able to depict all potential locations due to the diffuse nature of non-point source
pollution. Like the informational requirements for crop types, this provision should be
revised to require only maps that depict typical farming operations at the time the
FWQMP is developed and submitted to the Regional Board.

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Appendix D would also require FWQMPs to include, "information on water quality
management practices used to achieve general ranch/farm management objectives
and reduce or eliminate discharge of waste to ground and surface waters." To better
clarify the use of management practices, we recommend that the sentence be
revised as follows: "applicable information on water quality management practices."

> used to help control the discharge of pollutants to the maximum extent practicable, a achieve general ranch/farm management objectives and reduce or eliminate discharge of waste to ground and surface waters."

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• As proposed, FWQMPs would also be required to include, "measures instituted to comply with California Code of Regulations, Title 3, Section 6609 requirements for wellhead protection (from pesticide contamination) along with methods for wellhead protection from fertilizer use[]." The wellhead protection requirements from pesticide contamination are adopted, authorized, and administered by DPR. The Regional Board has no authority to determine if growers are complying with these requirements. As such, it is inappropriate for the Regional Board to require this information as part of the FWQMP. With respect to wellhead protection from fertilizer use, there currently exists no regulatory program that requires measures for such activities. Further, it would appear that such practices and/or measures would be general farm management practices to control the discharge of pollutants to the maximum extent practicable. Thus, there is no need for the FWQMP to include specific requirements for wellhead protection.

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 Finally, buried in Appendix D is the following statement: "In addition to the minimum elements described above, the Executive Officer may require ground or surface water quality monitoring to evaluate the effectiveness of the practices implemented by the grower." We find it highly inappropriate to bury this important element in the appendix. By placing the information here, the DPEIR fails to account for and analyze potential environmental and economic impacts associated with such monitoring requirements. As a result, the economics impact assessment greatly underestimates the RPA and its potential impact to agriculture.

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H. Monitoring Provisions

It is difficult to assess the monitoring provisions in the RPA because it defers establishment of monitoring requirements until such time that individual waivers or WDRs are developed. By not providing specificity with respect to monitoring requirements, the DPEIR is unable to assess adequately environmental and economic impacts that may be associated with such monitoring requirements. Specifically, the monitoring provisions in the RPA state that

areas with insufficient information would be required to complete "assessment monitoring or studies within 5 years of long-term program adoption." However, based on such a statement, it is impossible to ascertain the extent of monitoring that may be required – especially with respect to groundwater monitoring.

In general, we are concerned with the groundwater monitoring requirements that appear to occur at the out-set of the program. As specified in Alternative 2, it is more appropriate to first rely on information from the many other programs and data that already exist (e.g., GAMA, DPR, CV-Salts, Department of Public Health, Department of Toxic Substances Control) to identify and prioritize the groundwater areas of concern prior to requiring expensive and unnecessary additional groundwater monitoring. Thus, it is unnecessary for agricultural coalitions and entities to conduct groundwater monitoring to identify areas of concern. Although the RPA provides for "regional groundwater monitoring," even on a regional basis, groundwater monitoring is expensive and all efforts should be made to avoid duplicative groundwater monitoring requirements.

1. Proposed Time Schedules for Compliance are Unreasonable

The RPA proposes time schedules for compliance with water quality objectives that are unreasonable. In general, the RPA states that time schedules should be set for a period of five to ten years but cannot exceed ten years. There is nothing in any statute or regulation that requires time schedules for non-point sources of pollution to be set at no more than ten years. In fact, for several of the parameters, it may be decades before compliance with water quality objectives can be achieved. Thus, it is unrealistic for the RPA to set an arbitrary time limit of ten years for compliance with water quality objectives.

More importantly, we believe it impractical to include time schedules as part of the LTILRP. While we agree that we should be implementing management practices to protect water quality and to work towards meeting water quality standards, it is not possible to ensure compliance with standards in the time frames provided, if at all. At most, agriculture can implement management practices that are designed to protect and improve water quality. There is no guarantee or certainty that compliance with objectives will be achieved by

implementing management practices, particularly as it relates to groundwater. As we indicated previously, it is essential for agriculture that a presumption of compliance be part of any LTILRP.

45-53

45-52

cont'd

In other words, where an operator is implementing management practices, there must be a presumption of compliance with water quality standards in general, and water quality objectives specifically.

45-53 cont'd

Additionally, the time schedule language currently proposed conflicts internally. For example, in one paragraph it states that the Executive Officer or the Regional Board may modify the time schedules, while in another it states that all objectives must be achieved as soon as technically and economically possible but no later than the time frames identified. However, as we indicated above, we do not support the inclusion of time schedules for meeting water quality standards as part of the LTILRP at this time. Thus, instead of clarifying the language, it should be deleted altogether.

45-54

J. RPA Continues to Ignore Issues Regarding Point of Compliance and Interpretation of Narrative Water Quality Objectives

At the beginning of the stakeholder process for the LTILRP, the agricultural representatives on the stakeholder committee expressed concerns with respect to the Regional Board's continued refusal to address issues regarding points of compliance in both surface and groundwater, the application of beneficial use designations through the tributary rule and the Sources of Drinking Water Policy, as well as issues surrounding the interpretation of narrative water quality objectives. The RPA continues to ignore these fundamental issues, which must be addressed. Our ability to comply with the terms of any LTILRP is contingent on the Regional Board reasonably applying the designation of beneficial uses and interpreting narrative water quality objectives. Otherwise, we are forced to protect water bodies for uses that do not exist and have no potential for existing, as well as complying with stringent and unreasonable numeric criteria that apply to beneficial uses not present in agricultural drains. Until the Regional Board is willing to discuss openly the designation of beneficial uses, appropriate points of compliance and interpretation of narrative water quality objectives, the agricultural industry cannot fairly assess the RPA, or any future proposal for that matter.

45-55

IV. Conclusion

The Westlands Water District appreciates the opportunity to comment on the DPEIR, RPA, and associated documents. As indicated above, we have significant concerns with the DPEIR

and the RPA. However, we continue to believe that Alternative 2 provides the necessary protection for water quality while allowing the various agricultural entities the ability to assist growers and the Regional Board in developing reasonable programs for the protection of surface and groundwater in the Central Valley. Further, unlike the RPA, Alternative 2 has been analyzed in the DPEIR and therefore is less vulnerable to CEQA challenges than the RPA. Thus, we encourage the Regional Board to consider the comments provided above and recommend Alternative 2 as the preferred alternative for Regional Board consideration.

45-56

Sincerely,

Orvil D. McKinnis Jr. Watershed Coordinator

Westlands Stormwater Coalition

3.2.19.1 Responses to Letter 45

45-1

See Comment Letter 96, Response 2. Also see Master Responses 3 and 4.

45-2

See Master Responses 3, 4, and 9.

45-3

See Master Responses 3, 4, and 9.

45-4

See Master Response 2.

45-5

See Comment Letter 1, Responses 53A and B and Master Response 2.

45-6

See Master Response 14.

45-7

See Master Responses 14 and 16.

45-8

See Master Response 14.

45-9

See Master Response 11.

45-10

See Master Responses 7 and 11 and Comment Letter 111, Response 53.

45-11

See Master Response 16.

45-12

Short-term construction impacts from installation of pressurized systems are documented in the Draft PEIR, Table 5.5-8 (page 5.5-25), and discussed in Chapter 5, Environmental Impacts and Mitigation Measures, Sections 5.5, Air Quality, and 5.6, Climate Change. Improved irrigation practices may reduce the amount of time that existing pressurized pump generators are used, which may offset air emissions and energy use generated by "new" devices (see Draft PEIR page 5.6-12).

Also see Master Responses 14 and 16.

45-13

See Master Response 6.

45-14

See Master Response 6. See text clarification made at Chapter 5, Section 5.7, page 5.7-50. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, pages 4-8-4-9 in this Final PEIR.

45-15

See Comment Letter 96, Response 9.

45-16

See Comment Letter 1, Response 31.

45-17

The comment correctly notes that historic changes to water quality are relevant to the antidegradation analysis only to the extent that those changes were not due to regulatory action consistent with the antidegradation policies. The Draft PEIR, Appendix A (page 60) sets forth this principle and the discussion has been further revised for clarification. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-16 in this Final PEIR.

See Comment Letter 1, Response 31.

45-18

See Master Response 5. The discussion of Resolution 68-16 in the Draft PEIR, Appendix A is a programmatic discussion, not a site-specific analysis. The comment is correct that the BPTC standard is relevant where there is potential degradation of high quality waters. In the context of a programmatic analysis, the Draft PEIR, Appendix A states that some of the agricultural discharges are to high quality waters and the BPTC standard therefore applies to at least some of the discharges under the ILRP. However, Draft PEIR, Appendix A acknowledges on page 64 and elsewhere that "the Long-term ILRP must comply with the antidegradation policies by requiring that . . . the requirements implementing the Long-term ILRP must result in use of BPTC <u>where irrigated</u> agricultural waste discharges may cause water quality degradation."

Even where a water body is not high quality and discharge into that water body consequently not subject to the requirements of the Antidegradation Policy, the Central Valley Water Board is required, under State Water Board precedent, to impose limitations more stringent than those required to meet water quality objectives, if those limits can be met by "best efforts." The State Water Board has not distinguished between the level of treatment and control required under BPTC and what can be achieved through "best efforts." Accordingly, while the comment is correct that the BPTC standard does not apply unless the discharge is to a high quality water, in practical application, even where a water is already degraded, the discharger may be required to meet limitations that can be achieved through "best efforts." A discussion has been added to the

Draft PEIR, Appendix A citing the authority supporting best efforts. See Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-20 in this Final PEIR.

See Comment Letter 1, Responses 31 and 32.

45-19

See Comment Letter 96, Responses 11 and 12.

45-20

See Comment Letter 1, Response 45. The Central Valley Water Board intends to take advantage of existing regulatory programs and data sources as part of the development and implementation of the orders by the ILRP.

45-21

See Comment Letter 1, Response 59.

45-22

See Master Response 17.

45-23

See Master Responses 17 and 4.

45-24

See Master Responses 2 and 17.

45-25

See Comment Letter 96, Response 18.

45-26

See Comment Letter 96, Response 18. Also see Master Response 17.

45-27

See Master Response 17.

45-28

See Comment Letter 92, Response 4.

45-29

See Comment Letter 1, Response 15.

45-30

See Comment Letter 96, Response 21.

45-31

See Master Response 12.

45-32

The identification of potential impacts on sensitive resources would be the responsibility of the entity implementing the management practice or installing a monitoring well. To the extent that third-party groups would be responsible for installation of monitoring wells or other practices, they would be responsible for ensuring that any potential impacts are mitigated or that an alternate course of action is taken. However, the third-party group would not be responsible for grower selection and installation of specific management practices. The grower would thus be responsible for mitigation of potential impacts because they would be selecting and installing the practice. Development of the Long-term ILRP will consider clarification of this requirement to ensure that mitigation responsibilities of third-party groups and agricultural operations are clearly defined.

45-33

See Master Response 6. Any cost for wetland delineation would arise because the grower chooses to implement a management practice that impacts U.S. Army Corps of Engineers Clean Water Act Section 404 jurisdictional waters. If a practice was implemented on existing irrigated lands, there would be no cost for this component.

45-34

See Comment Letter 97, Response 6 and Comment Letter 44, Response 13.

The recommendations on prioritization (tier) systems will be considered in the development of the Long-term ILRP.

45-35

See Comment Letter 95, Response 8.

45-36

See Comment Letter 111, Response 21.

45-37

See Comment Letter 33, Response 4.

45-38

The comment is correct in noting that BPTC requirements only apply to waters that are "high quality." However, the requirement for a surface water quality management plan does not necessarily indicate that the water body is not a "high quality" water.

See Comment Letter 1, Response 32 and the Draft PEIR, Appendix A (page 60).

45-39

See Master Response 13. Also see Comment Letter 102, Response 9.

The comment suggesting utilization of existing groundwater data will be considered in development of the Long-term ILRP. Also see Comment Letter 1, Response 45.

45-40

See Master Response 18.

45-41

See Master Response 18.

45-42

See Comment Letter 1, Response 48.

The analogy to dischargers in other programs is not applicable to the development of regional water quality management plans evaluated in the Draft PEIR. The regional plans are developed by third-parties, not by individual dischargers. The Central Valley Water Board agrees that to the extent individual dischargers in the ILRP are submitting plans and information to the Board, allowing for public input prior to approval of those plans would not be practical or necessary. However, the regional plans would be applicable to such a broad area that the interest of the public, and even other dischargers in the area, to have an opportunity to review and comment on the likely effectiveness of the plans suggests such review is appropriate. It is also worth noting that although the Board strives to best represent the public interest, doing so is best accomplished when the public has the opportunity to present those interests and their input to the Board.

45-43

See Comment Letter 41, Response 29.

45-44

See Comment Letter 45, Response 38.

45-45

See Comment Letter 41, Response 23 and Comment Letter 111, Response 34, as well as and Master Response 13.

45-46

See Comment Letter 41, Response 23.

45-47

Setting a minimum standard for the farm water quality management plans (FWQMPs) that falls short of achieving water quality objectives and preventing degradation would conflict with the goals and objectives of the ILRP and would be contrary to state law and policy.

Staff agrees that it would be impractical to require new or amended FWQMPs every time there was a non-substantive change to the farming operation, but there may be more significant types of changes where revisions to the FWQMP would be needed.

The recommendations will be considered in the development of the Long-term ILRP.

45-48

This concern becomes more considerable for alternatives in which the ILRP would require FWQMPs submittal to the Central Valley Water Board. Only Alternative 3 would require submission and Board approval of individual FWQMPs. Alternatives 4 and 5 require that operations maintain the FWQMP onsite and submit it to the Board upon request; while Alternative 6 does not specify. It is not unreasonable to require that operations maintain FWQMPs onsite as "living" documents. Likewise, it is reasonable to require that these plans have a level of detail to describe operations, discharge locations, water bodies receiving wastes, and the practices in place to minimize the discharge. As conditions change, the plans would be amended as necessary.

Also see Comment Letter 45, Response 47.

45-49

See Comment Letter 45, Response 47.

45-50

The comment is correct; the Central Valley Water Board does not have the authority to ensure compliance with DPR's regulations. However, to the extent that DPR's wellhead protection standards are sufficient to prevent impacts from fertilizers, it is appropriate for the Board to reference these standards as adequate and effective management practices. The FWQMP requirements have been revised to address this concern. See revised text provided in Chapter 4, Revisions to the Draft Program Environmental Impact Report, page 4-34 in this Final PEIR.

45-51

The element in question is followed by the statement: "Any such monitoring requirements will be issued as an order under 13267 of the CWC [California Water Code]." The type of individual monitoring necessary to evaluate effectiveness of management practices is described under Alternatives 3 and 5. Therefore, the costs and potential environmental impacts of this monitoring have been evaluated in the PEIR and Draft ILRP Economics Report. Alternative 6 assumes that the regional, third-party approach will be effective in leading to water quality improvements and implementation of necessary management practices. To the degree that third-parties and growers are effective at showing such improvements, the costs would be closer to those estimated for Alternative 2. If irrigated agricultural operations are unable to demonstrate water quality improvement under the third-party framework, the costs would be closer to those estimated for Alternative 5.

45-52

See Comment Letter 96, Response 40.

45-53

See Master Response 13 and Comment Letter 45, Response 54.

45-54

The time schedule for compliance, proposed under Alternative 6, provides a general 5–10 year requirement to meet objectives in priority surface waters and show demonstrated improvement/ reduction in discharge for priority groundwater (see Draft PEIR, Appendix A pages 159–160). However, as described on page 159 of the Draft PEIR, Appendix A, these schedules may be modified by the Central Valley Water Board Executive Officer "based on evidence that meeting the compliance date is technically or economically infeasible..." The Board does not agree that these time schedule requirements are in conflict.

45-55

Implementation of the Long-term ILRP must be consistent with the interpretation of the current Basin Plan language.

The State Water Board and Central Valley Water Board have set up the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, which is evaluating the need to update the Basin Plan salinity and nitrate control program. This effort is expected to evaluate beneficial use designations and other issues raised by this comment. Westlands Water District is encouraged to participate in this process.

45-56

See Comment Letter 102, Response 12.

3.2.20 Letter 108—Wheeler Ridge-Maricopa Water Storage District, Thomas Suggs, P.E., P.G., H.G., Staff Engineer



Comment Letter IL108

WHEELER RIDGE-MARICOPA

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September 27, 2010

ILRP Comments Ms. Megan Smith 630 K Street, Suite 400 Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Subject:

Irrigated Lands Regulatory Program - Draft Program Environmental

Impact Report

Dear Ms. Smith:

The Wheeler Ridge-Maricopa Water Storage District (District) is a public agency that supplies agricultural water to approximately 90,000 acres of irrigated farmland in the southern end of the San Joaquin Valley. The District hereby submits the following comments related to the Draft Program Environmental Impact Report (DPEIR) for the Irrigated Lands Regulatory Program (ILRP):

In November 2007, the District adopted its "AB3030 Groundwater Management Plan".
 The Plan contains basin management objectives and recommended actions for groundwater management within the District. These basin management objectives include the monitoring and maintenance of groundwater quality. Therefore, a duly adopted Plan exists for such purposes, making the proposed groundwater component of the Irrigated Lands Regulatory Program redundant and unnecessary within the District.

108-1

2. The ILRP Long-Term Program Development Staff Report (Report) describes what has come to be known as the Recommended Program Alternative (RPA). The Report correctly identifies several processes for the attenuation of pesticides in the environment. These include sorption to organic matter and clays, volatilization, and biotic and abiotic degradation (Report, page 47). Where effective barriers and attenuation processes are present, there is no defensible reason to assert that discharge is taking place or potentially will take place.

108-2

3. During the first 19 years of operations in the Wheeler Ridge-Maricopa Water Storage District (1971-1990), total crop consumptive use was about 4.1 million acre feet (Bookman Edmonston, 1995). This included a large share for field crops such as cotton. During the same period, irrigation efficiencies were approximately 80%, which suggests that applied water was about 5.1 million acre feet and deep percolation was about 1 million acre feet of

108-3

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water. Since 1991, 45 different wells within the Maricopa Water Storage District boundaries have been monitored for Title 22 constituents, which include a wide range of inorganic and organic chemicals and all of the program contaminants of concern to groundwater except Demeton. Based on a search of our database, other than one questioned value (2,4-D reported at 1.9 ug/L in one sample with questioned quality control in 1991) there has never been a detection of any pesticide in any well within this district. It is clear that in this locality at least, either the use of pesticides is locally very low, very few compounds are migrating past the root zone, or effective attenuation processes are retaining, isolating, or degrading them.

cont'd

Deep water tables and extensive clay layers, such as exist in many parts of the San Joaquin Valley and especially in this District, provide buffers or barriers to leaching of pollutants to from the surface to groundwater. The Report correctly states that many factors affect the tendency of a pesticide to leach to groundwater, "including pesticide properties, soil characteristics, site conditions, and management practices" (pages 47-48). In broad terms, the assertion is that pesticides with a low tendency to sorb to soil particles and long persistence (i.e, a long half-life) would tend to be more mobile in the subsurface and more likely to migrate to groundwater than others. The Report goes on to state that "when these pesticides are applied to sites with sandy soils, shallow depth to groundwater, and either a wet climate or extensive use of irrigation, the risk to groundwater degradation is high" (page 48). The converse is also true: pesticides with a strong affinity for adsorbing onto soil particles and short half-life tend to be less mobile in the subsurface (Blumhorst and Weber, 1994; Cheng, 1990; Kellogg et al. 1994; Kookana and Hollingsworth, 1996; Wei et al. 2001). And lands with clay soils, large amounts of organic matter in the soil, high populations of pesticide-consuming bacteria, deep depth to groundwater, and efficient irrigation practices tend to have lower vulnerability to pesticides (Barbash and Resek, 1996; Barriuso and Houot, 1996; Clay and Koskinen, 1990; Di and Aylmore, 1997; Robertson and Alexander, 1994; Sparling et al. 1998; Suett et al. 1996).

Many thousands of acres in the San Joaquin Valley are underlain by extensive clay layers that impede the downward migration of pollutants, including relatively mobile contaminants like nitrate. The valley floor contains remnants of former flood basins, lakes, and marshes preserved as large, continuous tongues of clay or silty clay (Croft, 1972; Wood and Dale, 1964). One clay unit, known as the E clay, underlies about 3,500 square | 108-5 miles of the valley floor and western slopes of the southern San Joaquin Valley (Croft, 1972). In addition to the E clay, shallower clay units occur locally beneath Buena Vista, Kern, and Tulare Lake beds and parts of Fresno Slough. Although the degree of saturation in these clays varies, it is known that significant clays occur above the water table near the margins of the basin and in the vicinity of Semitropic Ridge.

The table below shows the total thickness of clays located above the water table in nine wells that were selected from our files of Water Well Drillers Reports. Each record represents one well; each well is located on the valley floor and is surrounded by irrigated fields. Clay materials include all cuttings that were described by the well driller as clay, rock and clay, clay and sand, clay and gravel, blue clay, or sandy clay. Only those clay units located above the water table were counted. The depth to water is the static water,

108-6

Page 2 of 6

level that was observed in the subject well or within a half mile of the subject well during 108the latest (2009 or 2010) round of district water level surveys.

Well Location (Township/Range, S.B.B.M.)	Depth to Water (feet)	Thickness of Clay Materials Above the Water Table (feet)
11N/18W	495	313
11N/19W	420	187
11N/19W	643	168
11N/20W	265	142
11N/20W	265	115
11N/20W	250	250
11N/21W	207	187
11N/21W	375	170
11N/22W	302	69

108-7

 Most of the peer-reviewed field studies of the fate and transport of contaminants that could be applicable to agriculture have focused on shallow soil profiles with shallow water tables. Few have studied soil horizons deeper than two meters (Close 1993; Close 1996; Close et al., 2005; Hancock, et al., 2008; Kookana and Hollingsworth 1996; Sparling et. al., 1998).

108-8

 Ma et. al. (1999) found that increasing water amount and decreasing N application increased simulated pesticide leaching, concluding that policies calculated to protect groundwater quality by regulating the application of nutrients may have limited benefit and may be counterproductive if plant growth is reduced causing increased deep percolation.

108-9

9. Most, if not all, of the pesticides currently registered for use in California are formulated to break down in the environment. Many pesticides break down upon contact with water in a process known as hydrolysis. Many organic compounds, including many of the program contaminants of concern, are consumed by indigenous bacteria in the soil profile (Barriuso and Houot 1996). Nutrients also undergo mineralization and volatilization in the soil profile and degradation in the subsurface.

108-10

10. Today, many hundreds of thousands of acres in the San Joaquin Valley utilize efficient irrigations practices such as drip and micro irrigation. Within the Wheeler Ridge-Maricopa Water Storage District, approximately 71% of irrigated lands currently use drip or micro irrigation and 23% use sprinklers. Drip and micro irrigation methods commonly achieve efficiencies of more than 90%. In this portion of the San Joaquin Valley, evaporation rates are very high, averaging 63 inches per year over a 30-year period from 1977-2007, and rainfall is low, averaging 7.49 inches per year from 1979-2009. Effective,

108-11

Page 3 of 6

precipitation is essentially zero on the valley floor. High efficiency irrigation coupled with high evapotransportation rates effectively minimize the nutrient flux past the root zone.

108-11 cont'd

11. The Staff Report acknowledges that many of the constituents of concern (COCs) do not pertain to groundwater, although they may be relevant to surface water. The Draft Technical Memorandum Concerning the Economic Analysis (EA) of the Irrigated Lands Regulatory Program (ICF Jones and Stokes, 2010) identifies specific COCs and associates them with the crop types upon which they are used, or at least were once used (EA Table 2-6). The EA also provides tables that associate COCs with the program management practices that presumably would be used to help mitigate their risk to surface water and groundwater (EA Table 2-7). Many of the pesticides listed are organochlorine compounds (e.g., aldrin, chlordane, endrin, heptachlor, toxaphene, DDD, DDE, DDT), which tend to attach themselves strongly onto suspended sediments, especially organic matter, in irrigation water. Once attached, they tend to be transported with the sediment load of irrigation runoff, potentially migrating to surface water bodies and presenting a source of surface water pollution. The fact that they sorb strongly, however, also makes them relatively immobile in the vadose zone, and in fact the EA shows them to have "high" sediment attachment and "low" movement to groundwater (EA Table 2-5).

12. Many of the COCs listed are so called legacy pesticides, which are no longer registered for use, although they still may persist in the environment in some locations. Thus it appears that the Staff Preferred Alternative would mandate management practices (such as sediment traps and cover crops) to help contain at the surface pesticides that can no longer be applied.

108-13

108-12

Given the above information, the District believes that the proposed groundwater component of the Irrigated Lands Regulatory Program, including the Recommended Program Alternative, is unnecessary to protect groundwater quality within the District. The Regional Water Quality Control Board is attempting to implement a costly and massive new regulatory program with a "two tiers fit all" policy to the varied and complex groundwater conditions in the San Joaquin Valley. Such an attempt should be suspended or scaled back to those areas with demonstrated and ongoing groundwater contamination problems. The Program's uniform broad-brush imposition of fees and regulations to the entire irrigated acreage of the San Joaquin Valley is not justified by the actual benefit of such program in many areas of the Valley.

108-14

Respectfully,

Thomas Suggs, P.E., P.G., H.G.

Staff Engineer

Attachments: References Cited

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References Cited

- Barbash, J.E., and E.A. Resek. 1996. Pesticides in ground water: Distribution, trends, and governing factors, CRC Press, Boca Raton, FL.
- Barriuso, E., and S. Houot. 1996. Rapid mineralisation of the s-triazine ring of atrazine in relation to soil management. Soil Biology and Biochemistry 28: 1341-1348.
- Blumhorst, M. R., and J. B. Weber. 1994. Chemical versus microbial degradation of cyanazine and atrazine in soils. Pesticide Science 42: 79-84.
- Boman, B. J. and A. M. Battikhi. 2007. Growth, evapotranspiration, and nitrogen leaching from young lysimeter-grown orange trees: Journal of Irrigation and Drainage Engineering 133: 350-359.
- Bookman and Edmonston Engineering. 1995. Ground Water Studies, Wheeler Ridge-Maricopa Water Storage District report, 66 pp.
- Cheng, H. H. 1990. Pesticides in soil environment: An overview. p. 1–7. In HH Cheng (ed) Pesticides in the soil environment: Processes, impacts, and modelling SSSA, Madison, WI.
- Clay, S. A., and W. C. Koskinen. 1990. Adsorption and desorption of atrazine, hydroxyatrazine, and S-glutathioneatrazine on two soils. Weed Science 38: 262-266.
- Close, M. E. 1993, Assessment of pesticide contamination of groundwater in New Zealand. II. Results of groundwater sampling: NZ Journal of Marine and Freshwater Research 27: 267-273.
- Close, M. E. 1996. Survey of pesticides in New Zealand groundwaters, 1994. NZ Journal of Marine and Freshwater Research 30: 455-461.
- Close, M. E., R. Lee, G. N. Magesan, M. K. Stewart, G. Skuse, and G. Bekesi. 2005. Field study of pesticide leaching in a Himatangi sand (Manawatu) and in a Kiripaka bouldery clay loam (Northland). 1. Results: Australian Journal of Soil Research 43: 457-470.
- Croft, M. G. 1972. Subsurface geology of the Late Tertiary and Quaternary water-bearing deposits of the southern part of the San Joaquin Valley, California. U.S. Geological Survey Water-Supply Paper 1999-H, 29 pp.
- Di, H. J., and L. A. Aylmore. 1997. Modeling the probabilities of groundwater contamination by pesticides. Soil Science Society of America Journal 61: 17-23.
- Fawcett, R.S., B.R. Christensen, and D.R. Tierney. 1994. The impact of conservation tillage on pesticide runoff into surface water: A review and analysis. J. Soil and Water Conservation 49 (2): 126-135.

Page 5 of 6

- Hancock, T. C., M. W. Sandstrom, J. R. Vogel, R. M. T. Webb, E. R. Bayless, and J. E. Barbash. 2008. Pesticide fate and transport throughout unsaturated zones in five agricultural settings, USA. J. Environ. Qual. 37:1086–1100.
- ICF Jones and Stokes. 2010. Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program. Prepared for the Central Valley Regional Water Quality Control Board.
- Kellogg, R. L., M. S. Maizel, and D. W. Goss. 1994. The potential for leaching of agrichemicals used in crop production: a national perspective. Journal of Soil and Water Conservation. 49(3):294-299.
- Kookana, R. S. and I. Hollingsworth. 1996. Sorption and degradation of atrzine with depth in soil profiles. In: ASSSI and NZSSS National Soils Conference. July 1996. 129-130.
- Ma, Q. L., L. R. Ahuja, R. D. Wauchope, J. G. Benjamin, and B. Burgoa, B. 1999. Comparison of instantaneous equilibrium and equilibrium-kinetic sorption models for simulating simultaneous leaching and runoff of pesticides. Soil Science 164(12):922-929
- Robertson, B. K., and M. Alexander. 1994. Growth-linked and cometabolic biodegradation: possible reason for occurrence or absence of accelerated pesticide biodegradation. Pesticide Science 41:311-318.
- Sparling, G., R. Dragten, J. Aislabie, and R. Fraser. 1998. Atrazine mineralisation in New Zealand topsoils and subsoils: influence of edaphic factors and numbers of atrazinedegrading microbes. Australian Journal of Soil Research 36:557-571.
- Stearman, G. K. and M. J. M. Wells. 1997. Leaching and runoff of simazine, 2,4-d, and bromide from nursery plots: Journal of Soil and Water Conservation 52(2):137-145.
- Suett, D. L., J-C. Fournier, E. Papadopoulou-Mourdkidou, L. Pussemier, and J. Smelt. 1996. Accelerated degradation: the European dimension: Soil Biology and Biochemistry 28: 1741-1748.
- Wauchope, R.D. 1978. The pesticide content of surface water draining from agricultural fields a review: J. Environ. Quality 4:459-471.
- Wei, J., G. Furrer, S. Kaufmann, and R. Schulin. 2001. Influence of clay minerals on the hydrolysis of carbamate pesticides. Environmental Science & Technology 35:2226-2233.
- Wood, P. R. and Dule, R. H. 1964. Geology and ground-water features of the Edison-Maricopa area Kern County, California: U.S. Geological Survey Water Supply Paper 1656.

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3.2.20.1 Responses to Letter 108

108-1

Where local groundwater management programs are in place, Alternatives 2 and 6 would allow for coordination of the existing programs with the ILRP (see Draft PEIR, Appendix A page 154 and Appendix A to that report, page 12). This coordination would minimize duplication of efforts and multiple overlapping regulatory requirements.

108-2

See Master Response 12.

108-3

The Central Valley Water Board appreciates that in certain areas of the valley there may not be identified pesticide problems in groundwater. However, the Board is also concerned about other contaminants, such as nitrates and salts that may migrate to groundwater due to the activities of irrigated agriculture. Also see Master Response 12.

108-4

See Comment Letter 108, Response 3; Comment Letter 5, Response 1; and Comment Letter 111, Responses 68 and 77. Also see Master Response 19.

108-5

The Central Valley Water Board understands that clay layers can impede the movement of water and any contaminants from unconfined to confined aquifers. However, the overlying unconfined aquifer may have beneficial uses that must be protected. In addition, improperly constructed or protected wells may serve as a conduit for contaminants to travel to the confined aquifer from the land surface.

108-6

The Central Valley Water Board appreciates receiving this information. However, it does not suggest any changes to the analysis or conclusions in the Draft PEIR.

108-7

No response needed.

108-8

The Central Valley Water Board will consider these studies and others like them when designing the specific monitoring and assessment requirements for the Long-term ILRP. The summary provided of those studies does not suggest any changes to the analysis or conclusions in the Draft PEIR.

108-9

The Central Valley Water Board appreciates being made aware of this study. The goal of any nutrient management efforts will be to minimize leaching of excess fertilizers while maintaining yields.

108-10

The breakdown products (oxons) of the three most commonly used organophosphorus pesticides in California's agricultural Central Valley (chlorpyrifos, malathion and diazinon) are 10 to 100 times more toxic to amphibians than their parent compounds, which are already highly toxic to amphibians, according to the USGS's Western Ecological Research Center (U.S. Geological Survey, *Breakdown Products of Widely Used Pesticides Are Acutely Lethal to Amphibians*, June 25, 2007).

Those pesticides that breakdown into constituents that would *not* affect the quality of the state's waters would not be regulated by the ILRP.

The breakdown of nitrogen compounds by denitrification or the change in form from nitrate to ammonia (ammonification) requires specific site conditions for their occurrence (dependant on soil type, moisture content, aeration/oxygen content, and temperature). These processes, where present, may be overridden by the continued application of nitrate fertilizers. Regardless of nitrate application rates and/or the slow process of denitrification, nitrate concentrations in groundwater beneath agricultural areas in the Central Valley continue to increase (see pages B-38 to B-40 of Appendix B of the Draft PEIR, Appendix A).

108-11

This comment will be considered in development of the Long-term ILRP.

108-12

The pesticide soil sorption coefficient *Kd*, and the soil organic carbon sorption coefficient *Koc* are the parameters generally used by pesticide scientists and regulatory agencies to describe the environmental fate and behavior of a specific pesticide. They are a measure of the strength of sorption of a pesticide to soil and other geo-sorbent surfaces and thus a general measure of mobility in the soil.

Factors that may influence sorption include soil type (primarily clay content), carbonates, oxides and hydroxides of iron and aluminum and soil organic content. Additionally, soil solution chemistry (redox, ionic strength, pH and competing ions) and soil temperature and moisture content also influence the sorption process.

108-13

The ILRP would require implementation of management practices where irrigated agricultural operations may discharge wastes, such as legacy pesticides bound to soil, that may cause exceedances of water quality objectives and/or degradation, regardless of whether these are pesticides currently applied.

108-14

As described in Section III.C.2 of the Draft PEIR, Appendix A (page 45), there are a considerable number of wells in the Central Valley that have high levels of nitrate. The use of chemical nitrogenbased fertilizers has been found to be a potential cause of nitrate contamination of groundwater in agricultural areas (Draft PEIR, Appendix A, pages 99–100).

DPR's Groundwater Protection Program has detected pesticides in groundwater attributable to irrigated agricultural. In addition, fertilizers are a potential cause of nitrate contamination of groundwater. Accordingly, irrigated agricultural operations have the potential to impact groundwater quality. The ILRP must implement requirements to protect surface and groundwater quality to maintain consistency with the program goals and objectives, California Water Code, and other state policies (Draft PEIR, Appendix A, pages 96–116).

Also see Comment Letter 56, Response 1.