From: Lisa Ross [lross@cdpr.ca.gov]
Sent: Monday, September 27, 2010 3:07 PM
To: ILRP Comments
Cc: John Sanders; Mark Pepple
Subject: Comments on the Draft ILRP PEIR
Attachments: ILRP_EIR_emcom to RB5_fin_0910.pdf

Dear Ms. Smith,
Attached please find comments from staff of the Department of Pesticide Regulation's Ground Water Protection Program on the Draft Irrigated Lands Regulatory Program PEIR. If you have any questions about these comments you can either contact me (at the contact information below) or Mr. Mark Pepple of my staff at mpepple@cdpr.ca.gov or (916) 324-4086.

Sincerely,

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dpr Department of Pesticide Regulation

Mary-Ann Warmerdam
Director

Arnold Schwarzenegger
Governor

September 27, 2010

Ms. Megan Smith
630 K Street
Sacramento, California 95814

Dear Ms. Smith,

Thank you for the opportunity to review and comment on the draft Program Environmental Impact Report (PEIR) for the Central Valley Regional Water Quality Control Board's (Board's) Draft Irrigated Lands Regulatory Program (ILRP). We share your goal of protecting groundwater from the adverse impacts and degradation that may result from the application of pesticides to irrigated lands in the Central Valley. The following is our review of the draft PEIR.

This review comments on specific elements of four sections of the PEIR that are of most interest to the Department of Pesticide Regulation (DPR). These sections are (1) the Summary; (2) Chapter 5. Environmental Impacts and Mitigation Measures. Agriculture Resources; (3) Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program; and (4) Appendix A. Staff Report. Arguably, the Staff Report is the most important document because it explains how Board staff analyzed the ICF International analysis of the five alternatives identified by the stakeholder group, and proposes a hybrid alternative. However, since the Board will be considering all five alternatives in addition to the staff-recommended hybrid alternative, we have commented on the other sections as well. In addition, we have provided a summary of DPR's ground water protection program in order to highlight potential areas of coordination with the proposed ILRP.

The Department of Pesticide Regulation Ground Water Protection Program

DPR has had a ground water[1] protection program in place since the early 1980's, and is guided by the mandates of the Pesticide Contamination Prevention Act (PCPA) of 1985 as subsequently amended. Among the mandates is a requirement that all local, county, and state agencies submit all results of well sampling for pesticides to DPR. Another mandate requires DPR to develop a data base of wells sampled for pesticides in ground water. That data base currently contains the results from 22,924 mainly municipal and rural domestic wells sampled for one or more of 336

[1] It should be noted that the DPR convention is to spell ground water as two words, whereas the PEIR and the Pesticide Contamination Act (PCPA) use "groundwater." When describing or referring to the DPR program, we use "ground water." When quoting the PCPA and commenting on the PEIR, we use "groundwater."

pesticide active ingredients and degradation products over 58 counties. The data base contains approximately two million records, each of which represents a chemical analysis for a single pesticide. Sampling has been conducted in over 9500 sections of land, which covers more than six million acres statewide.

The PCPA also requires a formal review of pesticides found in ground water due to legal agricultural use to determine if continued use can be allowed. This formal review includes findings and recommendations made to the DPR Director by a subcommittee comprised of one member each from the State Water Resources Control Board, the Office of Environmental Health Hazard Assessment, and DPR. A formal review has been conducted for eight pesticides (aldicarb, atrazine, bentazon, bromacil, diuron, norflurazon, prometon, and simazine), which the DPR Director decided could be regulated to protect ground water. Regulation of the parent active ingredient means detected degradation products of these active ingredients are also regulated to protect ground water. Aldicarb requires a permit issued by the county agricultural commissioner for all uses and is subject to use restrictions (management practices) designed to protect ground water statewide. The other seven pesticides require a permit for use in sensitive areas (covering 2.3 million acres), where specified use restrictions apply, and are subject to additional use restrictions statewide to protect ground water. The goal of these use restrictions is to reduce pesticide residues to concentrations in ground water that are below the analytical method detection limit.

The PCPA also requires DPR to establish the Groundwater Protection List of pesticides that have the potential to pollute ground water and conduct well sampling to determine whether they have migrated to ground water. DPR has monitored for approximately 40 pesticide active ingredients (and some of their degradation products) on this list in areas with high use, and is developing analytical methods for additional pesticides on the list. Four of those 40 pesticide active ingredients (or their degradation products) have been found in ground water, but the frequency of those detections even in high use areas is extremely low. Of those four, only one appears to meet the conditions that will require a formal review.

DPR has also adopted regulations to protect wellheads statewide from any pesticide "handled" near a well. Handling includes mixing, loading, transferring, and applying (including chemigation); and maintaining, servicing, repairing, cleaning, or handling equipment used in these activities that may contain residues; and working with opened (including emptied but not rinsed) containers of pesticides. The wellhead protection regulations are also designed to protect wellheads from runoff water containing pesticide residues that may originate far from the wellhead.

Backflow prevention regulations are also in place to prevent direct movement of pesticides to ground water that results from backsiphoning of pesticides in tank mixes or being chemigated when a well shuts off.

Finally, DPR is required to report on its Web site annually a summary of reported wells sampled for pesticides, wells with detections of pesticides, the probable source of any detected residues, and actions taken by DPR for nonpoint sources of pesticides and by the state and regional boards for point sources of pesticides to protect ground water from pesticides.

In summary, DPR's ground water protection program tracks results of well sampling conducted statewide for pesticides, samples for pesticides that have the potential to migrate to ground water, formally reviews detected pesticides and requires users of those pesticides to adopt use restrictions designed to reduce residues to below the detection limit, requires property operators to take specific actions to protect wellheads from pesticides including from backflow, and reports annually on its Web site the results of well sampling for pesticides and all actions taken to protect ground water.

Summary of the Most Significant Comments

(1) The PEIR lists DPR as a coordinating agency for the Irrigated Lands Program, and references the DPR groundwater protection program for pesticides. However, the document is vague on just how growers will be able to use DPR's program, especially the groundwater protection program, to implement the ILRP. To minimize duplication of effort and additional costs on growers, we recommend that the PEIR specifically state that groundwater management plans (GWMPs) reference the DPR ground water protection program as a sufficient, or at least a major, element to address pesticides in ground water. Specifically, the following sections from Title 3 of the California Code of Regulations (3 CCR) should be cited:
Section 6000: Definitions used in various sections dealing with ground water protection, including reference to the document that details the locations of ground water protection areas (GWPAs) by county, township, range, and section of land.
Section 6416: Ground Water Protection Restrictions
Sections 6420-6444 (describe the permit system requirements)
Section 6458: Aldicarb
Section 6484: Bentazon.
Section 6487.1: Artificial Recharge Basins
Section 6487.2: Inside Canal and Ditch Banks
Section 6487.3: Engineered Rights of Way within Ground Water Protection Areas
Section 6487.4: Runoff Ground Water Protection Areas
Section 6487.5: Leaching Ground Water Protection Areas
Section 6609: Wellhead Protection
Section 6610: Backflow Prevention
Section 6624: Pesticide Use Records
Section 6626: Pesticide Use Reports for Production Agriculture

Section 6800(a): Pesticides that have the Potential to Pollute Ground Water based on detections in ground water.

(2) Without more detail, the current proposal could duplicate DPR's ground water protection program, and unnecessarily duplicate ground water protection strategies already in regulation for pesticides.

(3) ICF International provided a list of pesticides that are constituents of concern (COC). This list was presumably developed so that ICF International could conduct the economic assessment of the five alternatives. The list includes 10 pesticides that have a groundwater flow path. Two of those are pesticides (diuron and simazine) have been confirmed by DPR in groundwater and are subject to current DPR regulations in GWPAs and statewide in canals and ditches and inside artificial recharge zones. Four (carbofuran, demeton, lindane, and molinate) of the remaining eight pesticides are no longer registered for use so mitigation of current use practices is not possible. Modeling and well sampling indicate diazinon and dimethoate will not likely move to groundwater and since methomyl is not primarily applied to soil, it too has a lower potential to contaminate groundwater. Linuron is the only pesticide listed, other than diuron and simazine, whose continued use has potential to contaminate groundwater. Thus, the economic assessment for the pesticide ground water element is based on pesticides with lower potential to contaminate ground water and therefore based on scenarios not likely to be needed in the field.

(4) The PEIR apparently lists only two management practices to protect groundwater via the runoff pathway: buffer strips and abandoned well protection. These were identified for the purpose of estimating likely costs, and not as required management practices. Since the PEIR assumes buffer strips only apply to sediment-bound pesticides, which do not threaten groundwater, the only measure that applies to water-soluble pesticides, which have been found in groundwater, is abandoned well protection. We recommend that the PEIR include the other pathways to groundwater in runoff areas, such as dry wells, unprotected water wells, temporarily unused wells, and ditches and drainage ponds dug below confining soil layers, as well as the other management practices that DPR has adopted to mitigate runoff of water-soluble pesticides (see 3CCR sections 6487.3 and 6487.4).

(5) Based on DPR's costs of analyzing pesticides, the PEIR appears to significantly underestimate the costs of analyzing pesticides in groundwater samples.

(6) The Board PEIR Staff Report states that monitoring wells are needed to test for pesticides in groundwater, and would require installation of monitoring wells. We recommend that staff

consider the Burow et.al.[2], US Geological Survey (USGS) report that concludes that results from domestic well sampling are not much different from adjacent monitoring wells, and that monitoring wells should only be required when domestic wells are not available for sampling.

(7) The estimated costs of the five alternatives considered vary from $68/acre/year (the current program that does not address groundwater) to $186/acre/year. In the Staff Report, the recommend program alternative implementation cost is estimated to be $492 million per year or $70/acre/year. However, in light of the uncertainties of which pesticides must be sampled and analyzed, where and how often they must be sampled, and the cost of the analysis, we believe it is only possible to estimate a range of implementation costs, which the PEIR has not done.

(8) Within GWPAs, some of the requirements of the Groundwater Quality Management Plan could be met by citing the locations of GWPAs, the investigations and information DPR used to establish GWPAs, the DPR publications that document efficacy of management practices to reduce movement of pesticides to groundwater, and the requirements that apply within GWPAs. This information should be acknowledged and specified in the PEIR.

(9) The Board Staff Report states that surface water priority beneficial uses would be aquatic life, drinking water and human consumption. But the report does not give any guidance on what drinking water levels will be used to protect those beneficial uses. Likewise, the antidegradation policy will be applied to groundwater but no guidance is given on what levels would apply in implementing that policy. Without that guidance, the stringency of management practices and the areas to which they will apply cannot be determined and thus the cost of the program cannot be estimated.

(10) The Staff Report considers those pollutants that cause or contribute to a violation of water quality objectives or degradation of groundwater quality associated with drinking water uses to be priority pollutants. No currently registered pesticide violates water quality objectives in groundwater, but some may degrade groundwater used for drinking water, if the Board determines that levels of pesticides detected in groundwater violate the antidegradation policy. Depending on how the Board interprets levels detected, all pesticides detected in groundwater could be determined to be priority pollutants. This should be defined. In addition, the purpose for designating priority pollutants is unclear.

(11) In high priority areas, as identified by DPR's GWPAs, it is unclear when Tier 1 vs. Tier 2 requirements will apply. We believe that since 3 CCR section 6800(a) pesticides are already under management practices in GWPAs, which appears to be the principal criterion for a lower priority, GWPA pesticides should be subject to Tier 1 requirements.

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[2] Burow, K., J.L. Shelton, and N.M. Dubrovsky. 1998. Occurrence of Nitrate and Pesticides in Ground Water Beneath Three Agricultural Land-Use Settings in the Eastern San Joaquin Valley, California, 1993-1995. U.S. Geological Survey Water-Resources Investigations Report 97-4284

(12) Staff are recommending regional ground and surface water monitoring except in the case of "inability of regional monitoring to determine irrigated agricultural waste contributions," in which case individual monitoring would be required. The PEIR does not give any guidance on how staff would determine "inability of regional monitoring to determine irrigated agricultural waste contributions." How will this determination be made?

(13) The Staff Report contains a flow diagram that asks "High priority surface or groundwater?" If the answer is yes, the waste discharge requirements are Tier 2 for high priority areas, and Tier 1 for low priority areas. If the answer is no, a waiver is issued with Tier 1 requirements. Under what conditions would Tier 1 for low priority areas apply in an area that is classified as "High priority surface or groundwater"? What is the difference between Tier 1 requirements applied under waste discharge requirements and Tier 1 requirements applied under a waiver?

Comments on the Draft PEIR.

The comments are organized as follows: first, the PEIR chapter and page number are cited, then the "statement" quotes or summarizes the issue, followed by the corresponding "comment." The statements and corresponding comments are numbered consecutively.

I. Chapter 1. Summary

Page 1-2

Statement 1: "Irrigated agricultural lands" "include lands where water is applied to produce crops, fiber, or livestock for commercial sale or use. For the purposes of this draft PEIR, irrigated agricultural lands also include managed wetlands, nurseries, and water districts that accept discharges from irrigated lands."

Comment 1: The document should define "managed wetlands," or if defined somewhere, have a reference to a Glossary of definitions in the Table of Contents.The document should also specify whether "nurseries" include both wholesale and retail nurseries.

II. Chapter 5. Environmental Impacts and Mitigation Measures. Agriculture Resources.

Page 5-1

Statement 2: One of those practices is "improved water management," which is described as follows: "Improved management of irrigation water application (reduced over-application) and use of water additives to coagulate particles. Results in reduced sediment runoff, less deep percolation to groundwater. No new hardware required and no ground-disturbing activities likely to result."

Comment 2: The PEIR should be amended to clarify that the improved irrigation water management will do the following: (1) decrease runoff of water-soluble pesticides, nitrates and salts to surface water, (2) decrease runoff of water-soluble pesticides, nitrates, and salts to dry wells, ditches, or drainage ponds that can facilitate movement to groundwater, (3) decrease runoff of relatively insoluble pesticides attached to sediment to surface water, and (4) decrease leaching of water-soluble pesticides, nitrates and salts to groundwater in permeable soil areas. Use of water additives that reduce sediment will also decrease runoff of relatively insoluble pesticides to surface water.

Improved water management of pressurized systems can lead to some improvement in irrigation efficiency but is not likely to result in significant changes in deep percolation to groundwater because pressurized irrigation system efficiencies are relatively high compared to gravity flow systems. This also appears to be the assumption in Table 2-1 in the Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program where pressurized irrigation is described as only mitigating surface water runoff, not deep percolation. However, it should be noted that these improvements are the most likely to be made by growers because they do not require significant investments in new hardware.

Improved management of gravity flow systems may reduce runoff of water soluble pesticides and sediment-attached pesticides, but is unlikely to significantly reduce deep percolation to groundwater. Shortening irrigation runs, use of surge irrigation (which would require new hardware) or torpedoes to hasten movement of water along furrows can improve irrigation efficiency but in most agricultural soils not enough to significantly minimize pesticide, nitrate and soluble salt leaching that occurs in the top half of the field. However, conversion of gravity flow systems to pressurized systems would significantly increase irrigation efficiency and thus reduce both surface water runoff and deep percolation of water. But since such conversions would require costly installations of "new hardware," growers are less likely to make these changes. These conversions, in most cases, would also require "ground-disturbing activities" to install underground supply pipelines.

These various issues should be addressed in the PEIR, including in the Technical Memorandum addressing economic issues.

Statement 3: Another management practice identified in Table 5.1-1 is "tailwater recovery system," which is described as follows: "Use of tailwater pond to collect surface runoff and prevent flow of sediment and other constituents of concern (COCs); reduces volume of water moving to receiving surface water or groundwater. Includes significant construction effort: construction of ponds, and installation and operation of pumps, often diesel, to recirculate runoff over fields."

Comment 3: Depending on the site of its construction and the operation of a tailwater recovery system, a tailwater recovery system can increase contamination of groundwater. If a tailwater holding area is constructed so as to expose more permeable soil layers than the surrounding soil

and it is not pumped out frequently or it is not sealed, it can serve to increase groundwater contamination. In a study of drainage water containing pesticide residues and draining into a pond in a shallow groundwater area, Pritchard et al <http://cdpr.ca.gov/docs/emon/grndwtr/manuscript2005.pdf> found that runoff water containing pesticide residues was collected in a pond and subsequently infiltrated within a few days, directly recharging and raising localized shallow groundwater levels. The author concluded that the most practical mitigation measure at this site would be to manage the runoff water that contains herbicide residues by pumping the water out of the pond for reuse in the same or adjacent field, which would reduce the volume of water available for infiltration and decrease the total time for infiltration.

This information should be included in the PEIR.

Page 5-2

Statement 4: A third management practice identified is "pressurized irrigation," which is described as "Conversion from surface to pressurized irrigation. Reduces volume of water moving to receiving surface water or groundwater, thereby reducing flow of sediment and other COCs to those waters. Fieldwork involved in setting up new irrigation system does not substantially exceed usual field preparation activities.

Comment 4: The meaning of the last sentence needs clarification. Installing a pressurized irrigation system can substantially exceed usual field preparation activities. . It is unclear why the statement does not address impacts beyond "field preparation." Although operating some pressurized irrigation systems, such as solid set sprinkler systems, can substantially decrease usual field preparation activities, other pressurized irrigation systems can require periodic labor to set up, check and periodically move irrigation pipe (hand-move sprinkler systems), which could increase irrigation labor costs depending on the design of the surface irrigation system replaced, or could increase irrigation labor and management costs in the case of drip systems that require more precise monitoring of evapotranspiration, crop water status, integrity of supply lines and performance of emitters to ensure sufficient application of water. These impacts and additional costs should be included in the assessment.

Statement 5: A fourth management practice identified is "wellhead protection," which is described as follows: "Physical barrier that prevents contaminated surface water from entering groundwater through well shaft. Berms are constructed around wells to prevent runoff from entering, or unused wells are capped with metal welded plates. Minor implementation effort; dirt berm or cover installation does not substantially exceed usual field preparation activities.

Comment 5: Use of the phrase "entering groundwater through well shaft" implies that the only source of groundwater contamination is through pumping water wells. Another likely source is dry wells, which are used to bypass confining soil layers to reach more permeable soil layers. Although drainage water does not directly enter groundwater, dry wells allow pesticide residues

to bypass the soil microbial zone where most pesticide degradation takes place. Thus, drainage water containing pesticide residues is shunted to more porous soils where continued concentrated volumes of runoff water can leach residues to groundwater. This should be addressed in the PEIR.

The language also refers to capping unused wells with metal welded plates. The Department of Water Resources has developed a state standard for well destruction that appears to address two categories of wells: inactive wells that may be used in the future, and permanently inactive wells (abandoned wells). For temporarily inactive wells, the following language applies: "The top of the well or well casing shall be provided with a cover, that is secured by a lock or by other means to prevent its removal without the use of equipment or tools, to prevent unauthorized access, to prevent a safety hazard to humans and animals, and to prevent illegal disposal of wastes in the well. The cover shall be watertight where the top of the well casing or other surface openings to the well are below ground level, such as in a vault or below known levels of flooding. The cover shall be watertight if the well is inactive for more than five consecutive years. A pump or motor, angle drive, or other surface feature of a well, when in compliance with the above provisions, shall suffice as a cover." The standard does not appear to refer to "metal welded plates." The shaft and annular space of permanently inactive wells must be completely filling with sealing material as specified. Thus it appears the analysis assumes there are no permanently inactive (abandoned) wells. Although the basis for this assumption is not given, it serves to reduce the cost impact of this management practice. In addition, this assumption conflicts with the frequent reference to "abandoned wells" throughout the document. These issues should be addressed in the PEIR.

III. Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program

Chapter 2: Compliance and Management Practice Costs

Page 2-2

Statement 6: Table 2-1. Summary of Water Quality Management Practices Considered for This Analysis

Management Practice	Scope of Practice
Nutrient management	Matches crop need with fertilizer
Irrigation water management	Reduces surface runoff and deep percolation
Tailwater recovery system	Reduces surface water discharge
Pressurized irrigation system	Reduces surface water discharge
Cover crop	Reduces sediment movement, improves infiltration
Buffer strip-sediment trap	Controls sediment movement
Abandoned well protection	Prevents surface water from contaminating GW

Comment 6: In line 3 of Table 2-1, the scope of practice for the tailwater recovery system is limited to reducing surface water discharge. Although technically correct, it should be noted that reducing surface water discharge can also reduce discharges to groundwater in areas where runoff is the pathway to groundwater. It should also be noted that improperly managed tailwater recovery systems can facilitate pesticide discharges to groundwater.

In line 4 of the table, the scope of practice of the pressurized irrigation system is limited to reducing surface water discharge. The comment made on line 3 also applies. However, if the pressurized system is the result of a conversion from a gravity flow system, "reducing deep percolation" should also be within the scope of practice.

Line 7 of the table addresses abandoned well protection. This conflicts with the management practice specified in "Chapter 5. Environmental Impacts and Mitigation Measures. Agriculture Resources," which addresses wellhead protection in general, including all unprotected wells like dry wells, production wells, unused wells, and abandoned wells. It is not clear why the practice here is limited to abandoned wells.

The PEIR should be amended to address these various issues.

Page 2-3.
Comment 7: Under section 2.2.1.3, Acreage and Grower Data, the reference "Barry, 2010" is either incorrect here or in the Reference section, where it is listed as "Marcus, Barry...."

Pages 2-6 to 2-8
Statement 8: Section 2.3.1, "When and Where Water Quality Management Practices Are Applied," states that cover crops are used when there are soluble constituents of concern (COC).

Comment 8: This apparently conflicts with Table 2-1, which states that cover crops reduce sediment movement (which is associated with relatively insoluble pesticides) and improves infiltration. It is silent on the topic of surface water discharge (of soluble pesticides). Depending on residence time, cover vegetation can also absorb soluble pesticides.

Statement 9: This section also states that water quality management practices are applied when there are documented COCs (Figure 2-1,Table 2-5). The practices applied for pesticides were based on the constituent's use by crop type. Therefore, if a constituent is registered for a particular land use type, a management practice is applied to all acres of that land use.

Comment 9: The document does not state whether the management practices are for protection of surface water or groundwater, or both. If for groundwater, management practices should be applied according to the CalVUL model classification that is based on soil types and depth to groundwater, not on land use type, which cuts across soil types. Requiring adoption of a management practice on all acres of a land use for which a pesticide is registered would result in significant unnecessary regulation of the pesticide. The PEIR should specify (or at least discuss)

how close to a well with a COC detection a grower must be before a water quality management practice would be required.

Statement 10: Table 2-5 lists the constituents of concern identified by ICF International. These are based on 303(d) and other listings or on "Considered a high- or very high–priority constituent by the Central Valley Regional Water Quality Control Board."

Comment 10: This list was presumably developed so that ICF International could conduct the economic assessment of the five alternatives. The list includes 10 pesticides that have a groundwater flow path. Two of those are pesticides (diuron and simazine) that have been confirmed by DPR in groundwater and that are subject to current DPR regulations in GWPAs and statewide in canals and ditches and inside artificial recharge zones. These are also considered high- or very high–priority constituents by the Board. The list also includes demeton, which has not been registered for use for more than 20 years; lindane, which has not been registered for outdoor use for 10 years; carbofuran, whose tolerances were revoked as of the end of 2009 (which essentially ends use) and which EPA plans to formally cancel; and molinate, which has been cancelled and whose use was not allowed after August 2009. DPR has sampled wells for the four remaining pesticides – diazinon, dimethoate, linuron, and methomyl - and not found them in groundwater. The LEACHM model DPR uses to prioritize pesticides on the Groundwater Protection List for monitoring indicates that diazinon and dimethoate are not expected to move to groundwater. LEACHM indicates that dimethoate has some potential to reach groundwater if all applications were to the soil but since most label uses are not soil applications, it would not be expected to reach groundwater. Linuron is the only remaining pesticide that has a realistic potential to move to groundwater. Thus, the economic assessment for the pesticide groundwater element may be based on incomplete and faulty information. Based on DPR's sampling experience and modeling, any monitoring required for pesticides other than diuron, linuron, and simazine, and the pesticides no longer registered for use, is not likely to result in detections.

Page 2-13

Statement 11: The document states that DPR's leaching and runoff GWPAs were used in Alternatives 2, 3, 4, and 5 to assign management practices and monitoring to various areas of the Central Valley. The leaching flow path is addressed through the implementation of nutrient and water management practices. The runoff portion is covered through two management practices. One is to reroute runoff with buffer strips (sediment traps), and the other is to prevent surface water inflow to abandoned wells. Well protection was based on one well for every 320 acres of land in the areas that are designated as vulnerable to runoff.

Comment 11: The document does not state what "water management" means, and only applies two runoff measures for pesticides: buffer strips and protection of abandoned wells. Since buffer strips apparently apply only to sediment-bound pesticides (see page 2-2), which do not threaten groundwater, the only measure that applies to the water soluble pesticides that have been found

in groundwater in runoff GWPAs is designed to prevent surface water flow to abandoned wells. This leaves out the other pathways to groundwater, such as dry wells, unprotected water wells, temporarily unused wells, and ditches and drainage ponds dug below confining soil layers. It also leaves out all the other management practices that DPR has adopted in regulation to mitigate runoff as a pathway to groundwater (see 3CCR sections 6487.3 and 6487.4). The PEIR should address those additional pathways and management practices.

Statement 12: Under all alternatives, water suppliers (irrigation or water districts) were assumed to be in full compliance with existing regulations. Because these entities do not apply high- or very high–priority COCs, their existing level of management practices were assumed to be sufficient to be in compliance with ILRP requirements.

Comment 12: This statement is confusing since irrigation and water districts use diuron, which appears to be listed as a high- or very high-priority COC in Table 2-5.

Page 2-14
Statement 13: A ratio of 1 acre of buffer strip is required for every 30 acres of irrigated lands.

Comment 13: A 40 acre parcel would require 1.33 acres of buffer, or 57,935 square feet. If this were spread over a ¼ mile downslope edge of a 40 acre field (1320 feet), this would result in a 44-foot buffer strip. It is uncertain whether the economic analysis accounts for the loss of production that would be associated with this size buffer zone in many, especially field and truck, crops. This size buffer zone could also conflict with the California Leafy Green Marketing Agreement and the "super metrics" adopted by the California food production industry to address food safety concerns. These issues should be addressed in the PEIR.

Page 2-16
Statement 14: The diagram indicates that in leaching GWPAs, water management is the management practice specified, and in runoff GWPAs, sediment trap and hedgerow/buffer strips are specified.

Comment 14: Again since the document assumes these practices only mitigate sediment runoff and thus relatively insoluble pesticides, no measures are specified for water soluble pesticides, which are those most likely to move to groundwater. The PEIR should also evaluate the management practices required for the use of pesticides listed in section 6800(a) in runoff GWPAs, which are specified in 3 CCR sections 6487.3 and 6487.4, and include them in the economic analysis.

Page 2-17
Statement 15: Table 2-9 gives the cost range for specified management practices. For the irrigation water management practice and pressurized irrigation management practice, two sources each are cited for the cost information.

Comment 15: For irrigation water management, the first source is a personal communication, and the second source, Imperial Irrigation District 2007, was not listed in the Chapter 6

Reference section. Thus, we could not determine the basis for the cost of the irrigation water management practice cost.

For the pressurized irrigation management practice, the first source, "NRCS 2010," leads to a web page with many NRCS technical guides. Without a more specific reference, the source of cost information cannot be determined. The second source, Imperial Irrigation District 2007, was not listed in the Chapter 6 Reference section. Thus, we could not determine the basis for the cost of the pressurized irrigation management practice cost.

Page 2-19
Statement 16: Table 2-10 specifies the surface and groundwater monitoring cost breakdown for use in all program alternatives. The detailed chemistry for 20 COC samples taken once per year is estimated to cost $1500.

Comment 16: If groundwater monitoring is required for the pesticides listed for groundwater concern (8 pesticides), the DPR per pesticide analyte cost is typically $700 (unless a multi-residue screen is developed), which would bring the cost to $5600 per year for pesticide groundwater samples alone, if an analytical method is available. If other pesticides are required to be sampled and an analytical method is not available, the cost to develop a method can be as high as $20,000-$30,000 per analyte, depending on the detection limit required. Therefore, the cost estimates provided do not match the costs based on our experience.

IV. Appendix A. Staff Report

Page 36.
Statement 17: Figure 12 gives 2 ug/liter (2 ppb) as the "health advisory" level for diuron based on a 2005 USEPA reference.

Comment 17. That reference is not included in the reference section, and a search of that reference online did not show the term "diuron" or "health advisory." The 2 ppb is cited in the 2003 diuron reregistration eligibility decision as a drinking water level of concern. This should be clarified/corrected in the final report.

Page 48
Statement 18: "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 of groundwater degradation is high."

Comment 18: While this statement is true, it should also be noted that Tulare County is one of the counties with the most wells contaminated by pesticides. Yet, most soils in the contaminated areas are hardpan soils, not sandy soils.

Statement 19: "Pesticide impacts on groundwater beneath agricultural areas, like nitrates, are determined most effectively by means of shallow (installed in first encountered groundwater) monitoring wells constructed with short screen lengths (Burow et al. 1998, 2007; Fuhrer et al. 1999; California GAMA Program 2008).

Comment 19: The reference "California GAMA Program 2008" is not listed in the Reference section. A subsequent 1999 report by the Burow, et al[3] (listed in the Reference section) states, on page 44, "In general, the concentrations and frequencies of pesticide detections discussed previously indicate that the ground water sampled from domestic wells was not much different from the ground water sampled at the adjacent monitoring wells." The report concluded, on page 46, "The differences in water quality results between ground water samples from existing domestic wells and monitoring wells installed during the study were generally not significant, although some contrast in the occurrence and concentrations of nitrate and pesticides was observed;" and, on page 47, "The occurrence of pesticides in ground water samples from the different wells indicates that ground water sampled from domestic wells was not much different from the ground water sampled in the adjacent monitoring wells." Based on these results and balancing the cost of installing a monitoring well vs. using those same resources to collect many more domestic well samples, the use of monitoring wells appears to only be justified where sufficient domestic wells are not present or inaccessible. This should be stated in the final report.

Pages 61-62 and 64

Statement 20: Resolution 68-16 (antidegradation) requires that any activity that results in discharge to existing high quality waters meet waste discharge requirements (WDRs) that result in best practicable treatment and control (BPTC). Several State Water Board water quality orders have evaluated what level of treatment or control is technically achievable using "best efforts." In determining BPTC, the discharger should compare the proposed method to existing proven technology; evaluate performance data (through treatability studies), compare alternative methods of treatment or control, and consider the method currently used by the discharger or similarly situated dischargers. The Regional Water Board may not "specify the design, location, type of construction, or particular manner in which compliance may be had with [a] requirement, order, or decree" (CWC 13360). However, the Regional Water Board still must require the discharger to demonstrate that the proposed manner of compliance constitutes BPTC (SWRCB Order No. WQ 2000-7).

"The long-term ILRP must comply with the antidegradation policies by requiring that, among others, the requirements implementing the long-term ILRP must result in use of BPTC where irrigated agricultural waste discharges may cause water quality degradation.

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[3] Burow, K.R., J.L. Shelton, and N.M. Dubrovsky. 1998. Occurrence of nitrate and pesticides in groundwater beneath three agricultural land-use settings in the eastern San Joaquin Valley, California: USGS Water-Resources Investigations Rep. 97-4284. USGS, Sacramento, Ca.

Comment 20: This appears to be an onerous requirement. For example, the EIR documents identify improved irrigation management, pressurized irrigation, vegetative filter strips, and wellhead protection as four management practices that apply in certain situations. How would the discharger demonstrate these practices to be BPTC, what existing proven technology or control would these practices be compared to, and what "treatability studies" would the discharger use? Without these elements, how would the Board determine what level meets the antidegradation requirements?

Page 122

Statement 21: Table 17 estimates the annualized costs of implementing management practices under the various alternative options to vary from $466 million under alternative 1 (the current program when fully implemented) up to $952 million for alternative 5. Total estimated costs for administration, monitoring, and implementing management practices vary from $478 million in the current program to $1.3 billion dollars for alternative 5. On page 170, the estimated cost of the recommended alternative is $492 million.

Comment 21: Based on the estimated 7 million acres of irrigated lands in the Central Valley (from Table 16, page 119), the annualized costs of implementing management practices would vary from $67/acre ($466million total) under alternative 1 (the current program when fully implemented) up to $136/acre ($952 million total) for alternative 5. The document states these are probably overestimates of actual costs, in large part because growers are already implementing the management practices. However, in light of the uncertainties of which pesticides must be sampled and analyzed, where and how often they must be sampled, and the cost of the analysis, we believe these are not overestimates. In addition, given these uncertainties it would seem reasonable to estimate a range of implementation costs, which the PEIR has not done.

As a point of reference for the pesticides-in-ground-water element only, the estimated ongoing fiscal and economic costs of implementing the DPR groundwater regulations adopted in 2004 were $4.3million or $.61/acre over the 7 million acres covered by the ILRP.

Page 128

Statement 22: The document lists the potential sources of funds to implement the irrigated lands program, including the federal Farm Bill (e.g., EQIP program), and various state and regional board grant and loan programs.

Comment 22: The EQIP program funds relatively few projects in California compared to the more than 33,000 growers that might need funding.

Page 131

Statement 23: ICF International only identifies one alternative (#5) that would require installation of substantial numbers of monitoring wells. The other alternatives that would require groundwater monitoring would rely on existing wells.

Comment 23: The ICF International approach appears to conflict with the Staff Report assessment that monitoring wells are the best way to evaluate pesticides in groundwater on page 48. This conflict should be reconciled, especially in light of Burow et.al. (see comment 19).

Page 140
Statement 24: Staff are recommending regional water quality plans where water quality objectives are not being met with additional requirements to ensure the plans are designed to implement BPTC to minimize degradation. Individual water quality management plans would be required where regional plans have been ineffective.

Comment 24: It is not clear whether there are any areas without some degradation that would require BPTC implementation. Presumably, absence of pesticides in groundwater means neither regional plans nor BPTC implementation would be required. The scale for making those assessments is not clear. How close would a grower have to be to a contaminated well before he/she would have to implement management practices?

Page 141
Statement 25: Staff are recommending regional ground and surface water monitoring except in the case of "inability of regional monitoring to determine irrigated agricultural waste contributions," in which case individual monitoring would be required.

Comment 25: Guidelines should be given for how staff would determine "inability of regional monitoring to determine irrigated agricultural waste contributions."

Pages 143+
Statement 26: The footnote on page 143 states "The Central Valley Water Board recognizes that DPR is the lead State agency for regulating pesticide use. In implementing the long-term ILRP, the Board intends to work closely with DPR where waste discharge associated with overspray or other pesticide wastes cause water quality problems."

Comment 26: This statement needs clarification. It could mean that the Board decides that the DPR program is acceptable, in which case there would be no additional costs and regulatory requirements to address pesticides in groundwater. Alternately, it could mean that the Board decides that the DPR program is inadequate and that additional measures would be necessary and additional costs incurred. Without this determination in the PEIR or an acknowledgment of these possibilities and an estimation of the range of costs that might be involved, the assessment of the economic impacts of the ILRP is incomplete.

Pages 145-146
Statement 27: The approach would be to require more costly general waste discharge requirements in high priority areas, less costly conditional waivers in lower priority areas, discharge prohibitions where coverage under the ILRP program has not been obtained, and no

regulatory program in areas where irrigated lands would not impact water quality (no such areas have yet been identified).

Comment 27: In the pesticides in groundwater arena, it is uncertain whether GWPAs would be classified as high priority areas that would be subject to the more costly general waste discharge requirements for groundwater protection. If so, growers being regulated by DPR in GWPAs would be subject to additional costly and arguably unnecessary regulatory requirements. We believe that growers adoption of management practices in GWPAs when using 3 CCR section 6800(a) pesticides meets the prioritization criterion of "management practices in place to protect water quality." Thus GWPAs should not be subject to Tier 2 requirements (see below). Tier 1 classification would make more economic sense and be a more efficient and less confusing regulatory framework for DPR's stakeholders. We encourage Board staff to include this in their report.

Pages 150-151
Statement 28: The document gives criteria for determining priority. These are (1) irrigated agricultural operations identified as causing or contributing to a surface or groundwater problem; (2) [operations]located in a high-threat area based on environmental conditions (e.g., DPR/State Water Board groundwater vulnerability area, intensity of operations, geology, proximity to surface water bodies, or in an area of shallow groundwater); (3) management practices in place to protect water quality; and (4) demonstrated non-compliance with ILRP.

Comment 28: Should GWPAs be considered high priority areas? The levels of pesticides found in those areas have not exceeded maximum contaminant levels or other human health guidelines used by U.S. EPA (where health levels exist), and thus have not exceeded water quality objectives. Also, GWPAs could be considered "priority areas" under point (2), but since management practices are in place to protect groundwater quality (prioritization point 3), how would that impact its classification? What is the purpose of including point (3) in the prioritization scheme if these management practices are already in place by DPR in regulation and by growers via permit conditions? The document does not specifically classify GWPAs as "high priority" that would be subject to Tier 2 requirements. Would that be an issue negotiated between the third parties and the Board? Given that uncertainty, how can the Board realistically estimate the costs of the ILRP?

Page 152
Statement 29: Tier 1 requirements would be applicable in low-priority areas. Figure 22 on page 153 shows that low priority areas subject to Tier 1 requirements can be designated in high priority surface and groundwaters. "These requirements would be aimed to ensure that irrigated agricultural operations maintain or improve the existing level of water quality protection. Management objectives would establish goals for water quality protection that irrigated

agricultural operations would achieve through implementation of specific management practices. Under this tier, the Central Valley Water Board considers the existing level of management objectives as BPTC, and protective of surface and groundwater quality. Third-party groups would be required to describe the area's existing water quality management objectives in a report to the Central Valley Water Board. Management practices tracking, every 5 years, would be the method by which the Central Valley Water Board would evaluate, in general, whether operations are continuing to meet existing management objectives."

Comment 29: It is our contention that GWPAs should be used as an example of where Tier 1 requirements would apply in high priority groundwaters for pesticides listed in Title 3 of the California Code of Regulations (3CCR) section 6800(a) since appropriate management practices are in place for those pesticides by DPR regulation.

It is uncertain how coalitions would track management practices every five years. Surveys could be conducted but how would survey information be verified? What practices would a grower identify in low priority areas? Would the Board provide the grower any guidance on what types of management practices should be listed, or design a survey with specific questions about management practices? Could the Board disapprove certain management practices? If so, what criteria would the board use for such a determination?

Page 153

Comment 30: In Figure 22, it appears that the "High priority surface or groundwater?" box refers to the classification of pesticides because if the answer to the question "High priority surface or groundwater?" is yes, Tier 2 requirements apply in high priority areas and Tier 1 requirements apply in low priority areas. This should be clarified in the final report. We reiterate that Tier 1 requirements should apply for use of 3 CCR section 6800(a) pesticides in GWPAs because they are subject to management practices by regulation. We also suggest that the Board specify that the coalition consult with DPR on which pesticides to monitor in a particular area. These could be one or more of the section 6800(a) pesticides, based on local use, and one or more of the 6800(b) pesticides based on local use, likelihood of application to soil and to the results of LEACHM modeling DPR uses to prioritize section 6800(b) pesticides for monitoring.

Pages 154-155 and Appendix D apply to the following group of statements

Statement 31: In high priority groundwater areas, irrigated agricultural operations would be required to implement management practices to achieve BPTC for the COC as part of the groundwater quality management plan (GQMP).

Comment 31: The goal of DPR's ground water protection program and required management practices is reducing pesticides residues to the California Department of Food and Agriculture Center for Analytical Chemistry's detection limit (currently 0.05 ppb). Would this be consistent with management practices to achieve BPTC for a COC?.

Statement 32: At least every five years, the Board will meet with third-party groups and other interested parties to evaluate the sufficiency of GQMPs. Appendix D, referenced on page 155,

further describes requirements for both surface water quality management plans (SQMPs) and GQMPs. The SQMP requirements appear similar to the current program. The GQMPs would be required to contain the following: (1) Identification of the groundwater quality management areas and associated constituents of concern addressed by the management plan.

Comment 32: For pesticides regulated by DPR in GWPAs, we propose the coalitions could reference those GWPAs and pesticides and that those should be sufficient to satisfy these requirements.

Statement 33: (2) A summary and assessment of the available water quality data for the aquifers and parameters addressed by the management plan. Available data from existing groundwater quality programs can be used, including but not limited to the State Water Board's Groundwater Ambient Monitoring and Assessment, USGS, DPH, DPR, DWR, and local groundwater management programs.

Comment 33: We support use of all available data, but only if readily accessible.

Statement 34: (3) Identification of irrigated agriculture source(s)—general practice(s) or specific location(s)—that may be the cause of the water quality problem. If the potential sources are not known, a study design must be included to determine the source(s) or to eliminate agriculture as a potential source. Source identification can include more intensive sampling in the relevant aquifer or field studies to quantify the relevant waste discharge from irrigated lands. In lieu of conducting additional source analysis, the management plan can focus on ensuring that all growers are implementing practices that
achieve BPTC for the constituent(s) of concern.

Comment 34: Could the monitoring and investigations conducted by DPR in response to detections that resulted in the conclusion in DPR memoranda that the residues were due to nonpoint source agricultural use be used to meet the requirements of this point?

Statement 35: (4) Identification of practices to address the constituents of concern. Where an identified constituent of concern is a pesticide that is subject to DPR's groundwater protection program, the GQMP may refer to DPR's regulatory program for that pesticide and any requirements associated with the use of that pesticide.

Comment 35: We support this language and recommend equivalent language be added to address the previous statements from pages 154-155.

Statement 35: (5) Evaluation of management practice effectiveness. The approach for determining the effectiveness of the management practices implemented must be described. Acceptable approaches include field studies of management practices at representative sites and modeling or assessment to associate the degree of management practice implementation to changes in water quality.

Comment 35: Could the GQMP cite DPR field studies demonstrating effectiveness of management practices to meet this requirement? With a median 7-9 year lag time[4] between pesticide application and detection in well water, it will be difficult to associate "the degree of management practice implementation to changes in water quality" within the 5-10 - year compliance timeframes specified on page 159 of the Staff Report. This should be addressed in the PEIR.

Statement 36: (6) Description of outreach to growers. The strategy for informing growers of the water quality issues that need to be addressed and relevant management practices must be described. The outreach strategy must describe the methods that will be used to inform growers and how the effectiveness of the outreach efforts will be evaluated. The third party may conduct outreach efforts or work with the assistance of the County Agricultural Commissioners, U.C. Cooperative Extension, Natural Resources Conservation Service, Resource Conservation District, or other appropriate groups or agencies.

Comment 36: Could outreach requirements for pesticides regulated in GWPAs be met during permit issuance when county agricultural commissioner staff discuss the various management practice options before agreeing to specify the appropriate practice on the permit?

Statement 37: (7) Tracking of management practice implementation. The process for tracking implementation of management practices must be described. The process must include a description of how the information will be collected from growers, the type of information being collected, how the information will be verified, and how the information will be reported.

Comment 37: Would this tracking only relate to 3 CCR section 6800(a) pesticides currently used in GWPAs? Or some other set of pesticides that are yet to be determined?

Statement 38: (8) Monitoring plan to track changes in water quality. A monitoring plan for the COC must be prepared to determine whether the management plan is improving water quality. The monitoring plan may need to include other sites or a different depth to groundwater (e.g., monitor first encountered groundwater versus supply wells) or frequency of sample collection to adequately assess the effectiveness of the management plan. Monitoring may include focused studies of selected agricultural management practices, constituents, or physical settings to inform refinement of GMA and constituent prioritization, or of practices that provide needed groundwater protection from degradation by constituents of concern. The monitoring plan must include an associated Quality Assurance Project Plan, and the data must be submitted electronically in a format required by the Central Valley Water Board. The intent of data verification is to provide confidence that the information being reported is accurate. This may

[4] http://cdpr.ca.gov/docs/emon/pubs/ehapreps/eh9704.pdf

include field visits to a subset of growers reporting their data or other methods to confirm data validity.

Comment 38: This may require coalitions to establish well monitoring networks, similar to DPR's current 70-well network in Fresno and Tulare counties, throughout the state in GWPAs and other areas the Board determines are priority areas for groundwater. DPR's annual cost for sampling and analysis of the network wells is approximately $140,000, using an eight-herbicide active ingredient screen. Costs could be higher or lower depending on the number of pesticides selected for analysis and the analytical costs at the specific laboratory.

The Board should be aware that based on sampling results from the DPR well monitoring network, using the results of monitoring data within the first five year period would be insufficient time to see changes in all wells except a few most responsive wells. Thus, such monitoring is likely to indicate failure of the management practices to protect groundwater. In addition, the staff report does not specify the scope of any required well monitoring, which means that the economic impacts of the ILRP cannot be fully assessed.

Statement 39: (9) Schedules and milestones. Milestones and schedules must be described for the actions to be taken (e.g., outreach, management practice implementation), as well as for the anticipated improvements in water quality (e.g., milestones for declining trends in concentrations of constituents of concern). The schedule for achieving compliance with water quality objectives must be consistent with any compliance dates established in the relevant water quality control plan.

Comment 39: Based on Comment 38, realistic milestones for improvements in groundwater quality are not likely to be consistent with compliance dates discussed in the Staff Report.

Page 156

Statement 40: Under "Monitoring Provisions," the Board "intends that regional monitoring programs would be coordinated with DPR surface and groundwater monitoring, local groundwater management plans, the Central Valley Water Board Dairy Program, and other existing programs. The primary goal of this coordination is to prevent duplicative monitoring programs. For example, existing water quality data (e.g., Surface Water Ambient Monitoring Program, SWAMP data; DPR groundwater data; etc.) could be used, and the monitoring parameters would be tailored to the farm inputs and water quality issues in the watershed or groundwater basin.

Areas with insufficient information available to determine prioritization would be required to complete assessment monitoring or studies within 5 years of long term program adoption. The goal of the assessment would be to determine whether irrigated agricultural operations are causing degradation of surface or groundwater quality. However, the Central Valley Water

Board does not intend to monitor every water body in the Central Valley as part of the long-term ILRP. Therefore, "representative" monitoring and other specified information will be considered first in tier classification.

Comment 40: We support coordinated and representative monitoring to minimize monitoring costs of the program. Since the scope of representative monitoring has not been determined, it is uncertain how the Board can estimate the cost of the ILRP program.

Pages 157-158

Statement 41: Under Tier 1 (low priority areas), the surface water element would track management practice implementation and monitor surface water once every five years, and reports results to the Board on the same schedule. For groundwater, growers must participate in regional groundwater monitoring program that would sample and report results every five years. Additional monitoring may be required where there is a water concern.

Under Tier 2 (high priority areas), the surface water element would require monitoring similar to the current program. The groundwater element would require participation in regional groundwater monitoring in coordination with other programs, such as DPR, conducting monitoring as follows:

(1) Regional monitoring for constituents of concern to provide baseline groundwater information and track trends in groundwater quality over time. Pesticide application tracking and associated modeling may be used to evaluate discharges to groundwater in place of monitoring.

Comment 40: The scope of regional monitoring is not specified. The first reference to COC in this staff report refers the reader to Chapter 4 for COC of groundwater concern. But a "find search" of Chapter 4 found no references to COC. It is uncertain how COC are identified and whether a pesticide detected by coalitions in groundwater would automatically be declared a COC or only if it exceeds some level of concern. This should be clarified in this document, and would apparently be needed to assess the economic impacts of the various alternatives. In addition, couldn't coalitions rely on wells previously sampled by DPR or others to help establish a baseline? Or would they be expected to establish their own baseline data?

Statement 41: (2) Targeted site-specific studies to evaluate the effects of changes in management practices on groundwater quality (this would occur only at a selected number of sites—the Fertilizer Research and Education Program [FREP] would be approached as a potential funding source for this monitoring).

Comment 41: Is the purpose of regional monitoring for trends also serve to evaluate the effects of changes in management practices on groundwater quality? Does the reference to FREP mean this element only targets fertilizers?

Page 159

Statement 42: Priority Surface Water Issues. Which water bodies are considered priority? Specific water bodies with beneficial uses identified in the Basin Plans; streams tributary to water bodies in the Basin Plan with aquatic life uses based on the "tributary rule"; tributary streams with identified municipal or domestic drinking water intakes; and water bodies with specific compliance time schedules established in the Basin Plans.

Which beneficial uses are considered priority? Aquatic life, drinking water, and human consumption uses in the above water bodies. Which pollutants are considered priority? Those pollutants that cause or contribute to a violation of water quality objectives associated with the priority beneficial uses and water bodies. Compliance time schedule—5 to 10 years. For watershed areas with multiple water body/pollutant issues to address, compliance schedules may be staggered between 5 and 10 years, but cannot exceed 10 years.

Comment 42: See Comment 38.

Statement 43: Priority Groundwater Issues. Which groundwater aquifers are considered priority?—aquifers with identified municipal or domestic drinking water wells; aquifers in which drinking wells were closed because of exceedances of water quality objectives.

Comment 43: In the pesticide arena, these two priority criteria are equivalent since the only wells closed because of exceedances of water quality objectives for pesticides are public water supply wells that contain the legacy fumigants - DBCP, 1,2-D, or EDB.

Statement 44: Which beneficial uses are considered priority?—drinking water uses (i.e., municipal and domestic supply). Which pollutants are considered priority? Those pollutants that cause or contribute to a violation of water quality objectives or degradation of groundwater quality associated with drinking water uses.

Comment 44: We assume that the reference to degradation of groundwater quality is in relation to the antidegradation policy. If so, it is interesting to note that the antidegradation policy is considered a priority for groundwater but not surface water. No currently registered pesticide violates water quality objectives in groundwater. What level will the Board determine is a degradation level for pesticides?

Page 161

Statement 45: Figure 23. Long-Term ILRP Prioritization Scheme Example.

Comment 45: The text box language describing Sub-area III is incomplete. Should the text box describing "Agricultural parcels" be amended to add "or managed wetlands"? Would Area B be considered low priority?

We appreciate the opportunity to review draft PEIR and look forward to working with you to develop a program that recognizes and builds on existing programs, and minimizes duplication

of efforts that can unnecessarily increase fiscal impacts on state and local agencies and economic impacts on the regulated public.

If you have questions about our comments please contact me or Mr. Mark Pepple of my staff at: mpepple@cdpr.ca.gov or (916) 324-4086

Sincerely,

Original Signature by

Lisa Ross, Ph.D.
Environmental Program Manager I
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cc: Mr. Mark Pepple, Staff Environmental Scientist
Dr. John Sanders, Environmental Program Manager II