COMMUNITY WATER CENTER
EL CENTRO COMUNITARIO POR EL AGUA

CLEAN WATER ACTION
CALIFORNIA

California Rural Legal Assistance Foundation

August 10, 2012

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

Re: Tulare Lake Basin draft WDR

Dear Mr. Longley,

As representatives of environmental and environmental justice communities located in the Tulare Lake Basin and throughout California, our organizations have closely followed the development of the Central Valley Water Board's General Waste Discharge Requirements for Irrigated Agricultural Discharges. We appreciate the efforts made by staff as well as the regulated community to create an effective regulatory program for agriculture. Our comments on the current draft continue to reflect the urgent need to address widespread groundwater contamination attributable to irrigated agriculture, and your responsibility under the Porter-Cologne Act to do so.

We particularly appreciate the inclusion of a finding that references the serious problem of nitrate pollution in groundwater used for drinking water in the Tulare Lake Basin. In addition to the draft report from the State Water Board "Communities that Rely on Contaminated Groundwater", the finding should cite the report "Addressing Nitrate in California's Drinking Water" developed by UC Davis for the State Water Board and published in March of this year. That report identifies 10% of the population of the Tulare Lake Basin and Salinas Valley as currently impacted by nitrate contamination, and up to half impacted economically due to the need to replace contaminated water supplies. The report also forecasts that up to 80% of the population will be impacted by nitrate contamination by 2050 if action is not taken to change existing nitrogen use practices. Adoption of this order is urgently needed to address current and future contamination of water supplies with an acute contaminant (nitrate) that has been linked with blue baby syndrome, cancer, thyroid problems, and other health issues.

Similarly, the Information Sheet (Attachment A) provides good information about nitrate contamination in the Basin. We suggest that it could be improved by using available information from GAMA to demonstrate the trend of nitrate contamination. We've attached a presentation developed by GAMA several years ago that demonstrates that trend on a statewide basis as well as for Tulare County specifically.

Recommendation; include available information about trends of nitrate contamination in the order findings and the Information Sheet.

This draft order, while a good first step, still leaves us with several questions/concerns:

- That the program fails to control contamination of groundwater from pesticide use;
- That the program does not provide adequate levels of enforcement capabilities to protect water quality.
- That the amount of public information to be made available is insufficient for interested stakeholders to determine the program's effectiveness.

Pesticides

The Board has apparently decided to cede regulatory authority over pesticides in groundwater to the Department of Pesticide Regulation (DPR). The order states (Attachment A) that "DPR's current groundwater quality monitoring program should be sufficient to identify any emerging pesticides of concern and to track water quality trends of identified pesticides of concern." We strongly disagree with the statement and ask for it to be removed from the document. Only about one-third of the pesticides on DPR's 6800(b) list of likely groundwater contaminants are subject to monitoring, and the Information Sheet includes an acknowledgement that monitoring data is not available for all pesticides in use in the region.

DPR's program as implemented does not comply with the Board's anti-degradation policy, or with DPR's own Pesticide Contamination Prevention Act. We've provided a short brief, attached to this letter, outlining our concerns.

The Board cannot cede its responsibilities for protecting water quality and preventing degradation to another agency, if that agency's program has demonstrated that it is not adequate to comply with California's water quality laws.

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Recommendation: Require that groundwater trend monitoring workplans include monitoring protocol for those pesticides in use within DPR Groundwater Protection Areas that appear on the departments 6800 (b) list but are not being monitored by DPR's shallow groundwater or soil monitoring program.

Enforcement

We appreciate that implementation of this order is a very large task that cannot be accomplished quickly. However the combined effect of the long implementation period and the suggested "progressive enforcement" policy is a continued delay in achieving the water quality improvements needed to protect drinking water supplies in the Basin.

Given the very long timeline for implementation of the plan, and estimates of several decades after that to realize significant improvements in groundwater quality, it is clear that any enforcement based on water quality monitoring will not be possible for at least a decade, and communities will continue to suffer and pay for water quality degradation for the foreseeable future. This order, therefore, must include reasonable measures for enforcement based on reporting that indicates use of protective practices, in addition to the water quality monitoring programs aimed at showing achievement of water quality objectives over the long-term. Even small token fines for exceeding nutrient budget parameters, for example, can signal the importance of protecting water quality, while also generating funds to mitigate continuing community impacts.

As currently written, enforcement will be based upon administrative paper compliance – timely enrollment and report submittal – rather than improvements in water quality or adoption of protective practices, which is everyone's goal. We support the requirement in the draft order to report annual nitrogen budgets on a square mile basis However, the third party coalition should also have the ability to identify nitrogen budgets on a grower or commodity specific basis to allow for better direct comparisons between farmers growing the same crops. This information provides an opportunity for enforcement based on impacts to water quality.

Recommendation: The Water Board should set a level for appropriate deviation from median for crop-based nitrogen budgets, and issue violation notices and fines to those growers who

report nutrient budgets outside of that deviation. This fine could be set at a minimal level for 2014, and increase with each bi-annual report, with the fines generated going to a SEP established to provide safe drinking water to communities with nitrate contamination.

Another barrier to enforcement is the limited amount of information to be made public by the 3rd party coalitions in their bi-annual reports to the Board. Required reporting of nitrogen budgets are extremely useful for planning and reporting, but needs to be paired with reporting of fertilizer application to provide a complete picture of nitrogen loading to groundwater. This information will be critical both to understanding groundwater monitoring data and in prioritizing growers for inspection and enforcement.

Fertilizer use, much like pesticide use, is not a confidential trade secret and is an important indicator that should be provided as part of the nutrient budgets to determine nitrogen loading of groundwater.

Recommendation: Include fertilizer use reporting on a square mile basis in 3rd party coalition's reports.

The provision that the 3rd party retain records for only five years is insufficient, given the extended time frame for full implementation of this program and the limited amount of information, particularly about individual grower practices, that will be submitted to the Board.

Recommendation: Third party coalition must retain records for 10 years.

Public Information

We understand the interest of growers to limit the amount of information made public under this order. However, the proposed model of retaining virtually all information with the 3rd party coalition ensures that the public will have limited ability to verify the efficacy of the order or the aggressiveness of the Board's enforcement.

It's particularly frustrating that this order, in common with the earlier draft order for the East San Joaquin River region, fails to provide a basic outline of the information that will be required

as part of the Farm Evaluation or Nitrogen budget. It is still unclear how much (or how little) information is being collected or being made publicly available.

Recommendation: make draft Farm Evaluation and nitrogen budget templates available for public review and comment.

Conclusion

We appreciate the opportunity to review this order and provide input. While we recognize the challenge presented by this program, it is critical, particularly in this region with its well-documented water quality issues, that we develop a program that provides sufficient information to understand the relationship between on the ground practices and below-ground water quality.

We look forward to a revised order that addresses our concerns.

Sincerely,

Laurel Firestone
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Memo on Pesticide Comments for ILRP

The legacy fumigants that contaminate the drinking water supplies of our communities tomorrow are caused by inadequate protection programs today. We have a continuous history of DBCP, 123 TCP, and other pesticide contamination that has cost local governments, communities, families, schools and businesses millions of dollars. In addition, our most disadvantaged, environmental justice communities often have contaminated, unsafe water in their homes for decades as new sources and treatment remain too expensive or inaccessible. As a result, for example, one local school in Tulare County just last year still had DBCP, a pesticide that was banned in the 1970s due to sterilization and other health impacts, above the legal limit in their sole well source. Additionally, private wells are even more vulnerable and already research has linked pesticide contamination of private wells to elevated levels of Parkinson's disease locally in the San Joaquin Valley.[1] There are very real health impacts to local residents as well as very significant economic impacts of pesticide contamination of groundwater.

The key is to prevent widespread contamination, not wait to detect after widespread damages have already occurred. Already, pesticides and pesticide degradates were detected in more than half of the public supply wells sampled by the GAMA program in the Southeast San Joaquin Valley. This is likely to be an underestimate due to the voluntary nature of the program and the fact that many pesticides designated as having the potential to contaminate groundwater that have been and continue to be used have never been tested for in local vulnerable groundwater environments.

Determine which pesticides are being used in what amounts in the Basin is not simple, since its boundaries are not contiguous with the county boundaries under which pesticide use is publicly reported. However, Fresno, Kern, Tulare and Kings counties rank first, second, third and ninth, respectively, in the state for pesticide use, with a total application of more than ***75 million pounds***. The Tulare Lake Basin area is about one-quarter of the area of the four counties, combined.

The Pesticide Contamination Protection Act.

The Pesticide Contamination Prevention Act directs DPR to create and maintain a "Groundwater Protection List", i.e., a list of pesticides with "the potential to pollute groundwater.[2]" The Act further requires that DPR monitor the soil and groundwater in areas where pesticides on the

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1

http://www.sierraclub.org/sierra/201201/parkinsons-pesticides.aspx
http://aje.oxfordjournals.org/content/169/8/919.full.pdf+html

2 Cal. Food & Ag. § 13145(d).

Groundwater Protection List are applied to determine whether these pesticides have migrated to deep soil or groundwater.[3] The Act specifically directs that "monitoring shall commence within one year after the pesticide is placed on the Groundwater Protection List".

In 2010, DPR monitored groundwater for only six of the 98 pesticides on the Groundwater Protection List.[4] DPR relied on CDPH's groundwater monitoring program for data on 37 more pesticides. The remaining 55 pesticides were not monitored at all.

DPR seems to believe that it is not required to monitor for every pesticide on the Groundwater Protection List. The Revised Protocol For Selecting Ground Water Protection List Pesticide Active Ingredients To Be Monitored Under Certain Agricultural Conditions ["Revised Protocol"], a document published by DPR, provides that a committee (the "Environmental Hazards Assessment Program") will evaluate the pesticides on the Groundwater Protection List and recommend one or more for monitoring each year.

However, the monitoring program established by the Revised Protocol does not meet the requirements of the PCPA. The language of the Act's monitoring provisions demonstrates that the Act envisions monitoring for each pesticide according to a strict timeline. For example, Section 13148(a) provides that groundwater monitoring "shall commence within one year after the pesticide is placed on the Groundwater Protection List." The use of the definite article "the" in "the pesticide" (as opposed to "as pesticide" or "any pesticide") implies that monitoring for each pesticide is to begin at the latest one year after each pesticide is listed. A monitoring program that does not start monitoring for a pesticide within one year of its listing is in violation of the PCPA.

Moreover, the PCPA requires both soil and groundwater monitoring.[5] To the extent that DPR is monitoring for pesticides at all, it appears that it is only monitoring groundwater, not soil.

Current state of pesticide monitoring

Where the California Department of Public Health (CDPH) and DPR have conducted the required monitoring, they have done an excellent job. However, significant gaps exist that the Regional Water Quality Control Board must address through the Irrigated Lands Regulatory Program in order to ensure groundwater is protected from irrigated agricultural activities.

In 2010, Department of Pesticide Regulation monitored groundwater for only six of 98 actively registered pesticides on the Groundwater Protection List. DPR relies entirely on Department of Public health's public supply wells for data on another 37 pesticides. That leaves 55 actively

[3] *Id.* § 13148(a)
[4] *See* 3 C.C.R. 6800(b); DPR, *2010 Update of the Well Inventory Database* 56-59 (2010)
[5] Cal Food & Ag. § 13148(a)

registered pesticides that have been identified as having the potential to contaminate groundwater for which no monitoring is taking place.

Monitoring that relies on public supply wells is not an appropriate preventative measures, as sampling deep aquifers detects contamination only after it has polluted on a widespread basis. Chemicals on the CDPH required monitoring list either have an established regulatory standard or are being monitored because a regulatory standard is under consideration. That is, a problem has been detected, and CDPH is taking steps to protect the public. If CDPH must regulate for the presence of a pesticide in drinking water, either the contamination occurred prior to the adoption of the PCPA, or the actions of DPR are inadequate to prevent groundwater contamination.

Need for Regulation in the ILRP

It is critical, in order to meet mandate of this Board to protect water quality, that the ILRP require that where growers use pesticides on the Groundwater Protection List in vulnerable groundwater areas, and those pesticides are not monitored for in shallow groundwater or soil by DPR's program, that the growers be required to sample for those pesticides within their monitoring program. This would allow us to use DPR's program and expertise, but also have a backstop on the gaps of that program, and allow the exact sampling requirement to evolve along with DPR's program.

Currently orders say that DPR's program is "sufficient to identify any emerging pesticides of concern and to track water quality trends of identified pesticides of concern." The order also states that the Board may require third party to conduct studies or implement a monitoring plan. It is clear from DPR's own data that a significant and critical data gap exists. Therefore it is imperative that the order require the collection of information to fill that gap. It can do this in a way that allows the plans to change as DPR's program evolves in order to avoid duplicative effort.

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Appendix: B-list pesticides

55 unmonitored **(56%)**; 9 individually monitored (dates monitored in parentheses)
34 monitored by DPH or DPR in 2010 WID; * - subject to regulation.

1. acephate
2. **alachlor**
3. **aldicarb***
4. azinphos-methyl (1994-1995)*
5. azoxystrobin
6. bensulfuron methyl
7. bensulide
8. **carbaryl**
9. **carbofuran***
10. chloropicrin*
11. **chlorothalonil**
12. chlorsulfuron
13. clomazone
14. **cyanazine**
15. **cycloate**
16. **2,4-D, 2-ethylhexyl ester**
17. **2,4-D, diethanolamine salt**
18. **2,4-D, dimethylamine salt**
19. **2,4-D, isooctyl ester**
20. **2,4-DP-p [*R* enantiomer of dichlorprop], dimethylamine salt**
21. dazomet*
22. **diazinon**
23. **dicamba, diglycolamine salt***
24. **dicamba, dimethylamine salt***
25. **dicamba sodium salt***
26. dichlobenil
27. dichloran
28. diethatyl-ethyl
29. diflufenzopyr, sodium salt
30. dimethenamid-P
31. **dimethoate**
32. dinotefuran
33. **diquat dibromide**
34. dithiopyr
35. **endothall, dipotassium salt**
36. **endothall, mono-(*N*,*N*-dimethyl alkylamine) salt**
37. **EPTC (*S*-ethyl dipropylthiocarbamate)**
38. ethofumesate
39. ethoprop
40. fenamiphos (2001-2002)*
41. fenoxycarb
50. imazapic, ammonium salt
51. imazethapyr
52. imazethapyr, ammonium salt
53. imidacloprid (2009)
54. iprodione
55. isoxaben
56. linuron
57. **malathion**
58. mefenoxam
59. metalaxyl (1995-1996)
60. metaldehyde
61. **methiocarb**
62. **methomyl**
63. methyl isothiocyanate
64. **methyl parathion**
65. metolachlor (2000-2001)
66. (*S*)-metolachlor (2000-2001)
67. **metribuzen**
68. **molinate**
69. **napropamide**
70. naptalam, sodium salt
71. nitrapyrin
72. **oryzalin**
73. oxydemeton-methyl (1995-1996)
74. **parathion**
75. pebulate
76. penoxsulam
77. phorate
78. piperonyl butoxide
79. prometryn
80. propanil*
81. propyzamide (1995-1996)
82. pyrazon
83. rimsulfuron
84. siduron
85. sulfometuron-methyl
86. **tebuthiuron**
87. terrazole
88. thiamethoxam
89. thiazopyr
90. **thiobencarb**
91. thiophanate methyl

42. fludioxonil
43. fluometuron
44. flutolanil
45. fonofos (1994-1995)
46. fosetyl-Al (aluminum tris)
47. halosulfuron-methyl
48. hexazinone
49. imazamox, ammonium salt
92. triallate
93. triclopyr, butoxyethyl ester
94. triclopyr, triethylamine salt
95. triflumizole
96. uniconizole-P
97. vernolate
98. vinclozolin