



April 2, 2012

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Ref: 'Communities that rely on contaminated ground water'.

On behalf of the Western Plant Health Association (WPHA) I am writing to provide comments on the recently published report to the Legislature prepared by State Water Resources Control Board **'Communities that rely on contaminated ground water'**. WPHA appreciates the opportunity to provide comments on the subject mentioned in the draft report. WPHA represents the interest of Crop Protection, and Fertilizer Manufactures, distributors, agricultural biotechnology providers, and agricultural retailers in California, Arizona and Hawaii.

WPHA appreciates the State Water Resources Control Board's attempt to provide more transparent and scientific approaches to identify the source and quantify the contaminants in ground water.

However, we believe current contaminants risk assessments report contains interesting data but the report suffers few weaknesses for being accepted as final report to the legislature. The major overall weaknesses are the followings:

- There are some duplication of paragraphs and figures in different section. I am wondering why State Water Resources Control Board did not include other state agency (CDFA and CDPH) who directly involved with work to reduce non point source contamination.
- The constituents of concern (COCs) based on two or more times detected above CDPH notification level within 8 years compliance cycle is not scientifically acceptable.
- Raw data were presented in the report.
- Many of the conclusions drawn from the generalized tables and figures are based on outlier of data or greater than MCL value.
- Farmers already practices with different cultural management and use different amendment lime, green manure, organic matter and use different fertilizer during land preparation and maintaining Good Agricultural Practice (GAP) to reduce nitrate contamination. The report suppose to blames groundwater contamination mainly from non point sources. Non point source is only one of the components for contamination in long run effect. It should be clarify properly in the report.

The following minor (Mandatory and Recommended) changes may be carried out to improve the report.

Page 9: Definition used to identify communities rely on cumulative ground water same as section 1.4 page 29

Page 10 Fig 1.: Same as Fig 1.5 of page 34

Page 13 line 19: 1, 3-D soil fumigant (VOC) Fig 4 Nickel both anthropogenic (Military training facility) and naturally.

Page 13 & 14 Fig. 4 & 5: Nitrate as NO₃, all NO₃ is not only by anthropogenic origin It should fractioned and mentioned % naturally occur and % anthropogenic.

Page 26: The two detection threshold was used in order to help eliminate reporting errors or other spurious data. It is really questionable for 9 years data period.

Page 38 and page 13: Principal contaminant: CDPH/SWRCB classified as principal contaminant needs to provide references on toxicology and human health hazards effects.

Page 40 Table 2.1: Antimony is not VOC its metal

Page 82 line 18: is not scientifically correct all NO₃ is not only from anthropogenic origin. It's also depends several factors as geographic location, habitat, rocks and minerals constituents, depth of layer, rainfall and lightening.

Page 87 Section 5.5: Include other state agency's name CDFA and CDPR

Page 88 under **Potential solutions** heading: Include other state agency's CDFA and CDPR are monitoring the non point source contaminant.

Obstacles heading: not really true, Best Management Practice, CDFA, DPR and also SWRCB had strong efforts on outreach program to significantly reduce the contaminant level from non point source.

Appendix 8:

Provide unit of MCL and concentration. Simply insert date instead of Most recent determination (Data of 2002, 2003 is not recent).

Example on Page 121:

| County | Primary city | Primary water system name | PWS num | Source of PWS supply | Pop served | Common water system well | Well with principal contaminant |
|--------|--------------|---------------------------|---------|----------------------|------------|--------------------------|---------------------------------|
| Butte | Chico | Harmony mobile home park | 400037 | 100%GW | 55 | 1 | 1 |

| State well number | Principal contaminant | MCL | Most recent detected > MCL | Dec. >MCL (2002-2010) | Max concentration | Average concentration | Sampling event |
|-------------------|-------------------------------|-----|----------------------------|-----------------------|-------------------|-----------------------|----------------|
| 0400037-001 | Nitrate (as NO ₃) | 45 | 7/3/2007 | 3 | 73 | 39.18 | 21 |

The reports justify PWS num 400037 is contaminated is really questionable.

All data were reported in same manner from page 121 to 241. Raw data were presented in the Appendix 8. No statistical analysis was done for this data. It should accommodate the lower

concentration level, range, median and standard error than interpret the data. Lower limit of detection should be included in this report for all contaminants. All tables and graphs should be rearranged on the basis of statistical analysis (mean, standard deviation), otherwise this report is of diminished scientific value.

Upon completion of statistical analysis, prioritize the contaminants and affected PWS. It needs to identify and justify why such variability occurred within the same or different PWS and also provide relationship with different variables (e.g. geographical location, topography, soil condition, depth and age of well and seasonal variation etc). Variation of all contaminants within PWS may be due to sampling, analytical error or season. I would recommend putting the results of statistical analysis in the table, so that readers can better find out the effects worth to be discussed.

WPHA thanks SWRCB for consideration of our comments and we look forward to continuing to work with the SWRCB staff. If you have any questions, please contact with me.

Yours Sincerely,



Dr. Afiquir Khan
Director of Environmental & Regulatory Affairs