

Second Opinion re the *INTERIM FINAL GROUNDWATER MONITORING PLAN*  
*LOWER YAKIMA VALLEY GWMA INITIAL CHARACTERIZATION*

August, 2014

This document, as currently written, is a blank check. There is no mechanism for accountability to the GWAC or the tax paying public. The document is not an area characterization<sup>1</sup>. Valid recommendations from the Data Work Group were ignored.

### **Accountability**

Section 1.0 of the document states,

*This interim final Groundwater Monitoring Plan addresses:*

- *Sampling Procedures*
- *Sampling Schedule (developed following identification of the sampling network)*
- *Sampling Network (sampling network has not been established as of the date of issue for the interim final Groundwater Monitoring Plan)*
- *Quality Assurance/Quality Control*
- *Reporting (frequency developed following identification of the sampling network and schedule)*

*While this Monitoring Plan is intended to be comprehensive, revisions and/or amendments may be required as the project evolves.*

The document does not provide a sampling schedule, a sampling network, or a reporting schedule. If the GWAC signs off on this document we have lost any control over where the monitoring wells will be located, when sampling will be done and how often reports are made.

The document does not talk about how many wells will be located in shallow aquifers, how many at middle levels and how many in deep aquifers. It does not guarantee that all areas in the GWMA will be monitored. It does not talk about groundwater flow. It does not address critical aquifers. It does not talk about soil characteristics. It does not talk about farming practices or cropping patterns.

### **Area Characterization**

WAC 173 – 100 – 100 (1) requires:

*The program for each groundwater management area will be tailored to the specific conditions of the area. The following guidelines on program content are intended to serve as a general framework for the program, to be adapted to the particular needs of each area. Each program shall include, as appropriate, the following:*

<sup>1</sup> “Characterization includes the measurement, description, and interpretation of the hydrogeologic setting that groundwater occurs in; monitoring is the point measurement of water quality or water-level conditions of the groundwater present in such a setting.” WA State Dept. of Ecology *Strategic Recommendations for Groundwater Assessment Efforts of the Environmental Assessment Program. 2003*

- (1) *An area characterization section comprised of:*
- (a) *A delineation of the groundwater area, subarea or depth zone boundaries and the rationale for those boundaries;*
  - (b) *A map showing the jurisdictional boundaries of all state, local, tribal, and federal governments within the groundwater management area;*
  - (c) *Land and water use management authorities, policies, goals and responsibilities of state, local, tribal, and federal governments that may affect the area's groundwater quality and quantity;*
  - (d) *A general description of the locale, including a brief description of the topography, geology, climate, population, land use, water use and water resources;*
  - (e) *A description of the area's hydrogeology, including the delineation of aquifers, aquitards, hydrogeologic cross-sections, porosity and horizontal and vertical permeability estimates, direction and quantity of groundwater flow, water-table contour and potentiometric maps by aquifer, locations of wells, perennial streams and springs, the locations of aquifer recharge and discharge areas, and the distribution and quantity of natural and man-induced aquifer recharge and discharge;*
  - (f) *Characterization of the historical and existing groundwater quality;*
  - (g) *Estimates of the historical and current rates of groundwater use and purposes of such use within the area;*
  - (h) *Projections of groundwater supply needs and rates of withdrawal based upon alternative population and land use projections;*
  - (i) *References including sources of data, methods and accuracy of measurements, quality control used in data collection and measurement programs, and documentation for and construction details of any computer models used.*

These are criteria for Area Characterization. We have contracted with PgG to do an area characterization and I do not see one. Just calling a monitoring plan a characterization does not make it so. The characterization should have been done prior to development of a monitoring plan.

The meeting summary for the May 8, 2014 meeting of the Data Work Group says, "As of now, the topic of who will be leading the characterization report is under discussion between the County and others. The scope and level of detail of the characterization report still needs to be decided."

### **Data Work Group Input**

The Data Work Group has only met once in 2014. It is inaccurate to say that the work group has approved any actions because there has been only one meeting this year. The chair appears to be acting independently from the work group.

There is evidence of consultation with some members of the group. An e-mail from Kirk Cook to Don Gatchalian on April 14, 2014 (obtained through the Freedom of Information Act) says "Document has been forwarded to key working group members for review, with a deadline of April 30th." This does not constitute work group input and shows that information has been withheld from some members of the group.

A paid consultant and hydrogeologist from the Pacific Groundwater Group (PgG) suggested adding chloride to the list of contaminants tested. Chloride has been part of the sampling and analysis for nitrates in groundwater in most other studies. Chloride has been used as a marker for lagoon leakage and manure over application. The addition was not made. We do not know who made that decision.

However, Stuart Turner, a paid consultant for the dairy industry who has never participated in a Data Work group meeting, did review and critique comments that other work group members made and his recommendation was to not include chloride testing.

More supportive information is available on request.

Respectfully submitted.

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