



Friends of Toppenish Creek

March 27, 2019

To the WA State Dept. of Ecology:

Please accept and consider the following comments from the Friends of Toppenish Creek regarding the 2018 Lower Yakima Valley Groundwater Management Area (LYV GWMA) plan and report

FOTC is a 501 (C) 3 non-profit group based in the LYV with a mission:

FOTC is dedicated to protecting the rights of rural communities and improving oversight of industrial agriculture. FOTC operates under the simple principle that all people deserve clean air, clean water and protection from abuse that results when profit is favored over people. FOTC works through public education, citizen investigations, research, legislation, special events, and direct action.

We have actively served on the GWMA advisory committee for the past six years and have done our best to support science and common sense while protecting the environment and the people who live in the LYV. We have been especially mindful of the children under the age of 18 who make up 35% of the LYV population, have no voice. These children and their children will pay the price for today's pollution.

FOTC raises valid concerns and asks pertinent questions in the pages that follow. We respectfully ask for serious answers before Ecology certifies the GWMA report and plan.

Sincerely,

Jean Mendoza

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Executive Director, Friends of Toppenish Creek

Comments – Lower Yakima Valley Groundwater Management Area

1. People who live in the Lower Yakima Valley (LYV) most likely spend a million dollars per year purchasing bottled water because the people who were supposed to protect the aquifer failed to do their job. This is a million dollar per year hidden tax.

In spite of lip service regarding the need for safe drinking water the LYV GWMA provided zero relief to the people whose health is threatened. On the contrary the GWMA has not confronted the polluters or the careless regulators, but has cruelly launched a public information campaign that transfers responsibility to home owners and renters. The GWMA solution merely instructs people to test their well water at a cost of \$30 to \$40 per test, another hidden tax.

The only alternative solution that comes close to addressing safe drinking water is # 44 that asks Yakima County to:

Perform an engineering study of water supply alternatives

There is no reference to funding that would support such an endeavor. Yakima County does not have the resources to do this on our own. Incidentally, in 2015 the County returned \$150,000 of state money designated for domestic water treatments. This demonstrates a lack of concern on the part of elected official who are presumed to represent the public.

Washington laws that declare citizens' rights to clean drinking water include RCW 90.48.010, RCW 90.48.040, RCW 90.48.240, and RCW 90.48.260.

2. Alternative Solution # 41 requires:

Identify and support opportunities, including education research institutions for private, public and industry investment in technology and management of fertilizers and manures, including separation of solid and liquid wastes. (17 – WSDA)
WSDA construct GWMA administrative program.

The WSDA lacks the expertise required to construct an administrative program. In addition WSDA lacks the knowledge of human health issues that form the core rationale for groundwater management.

In 2014-2015 the WSDA insisted upon performing a Nitrogen Loading Assessment for the GWMA at a cost of \$58,000. The project was delivered 18 months behind schedule thus delaying completion of the GWMA program. The NLA/NAA (Nitrogen Availability Assessment) is extremely flawed, did not comply with the scope of work for the project and has never been approved by the GWMA advisory committee.

A. The WSDA did not bring together focus groups of farmers to share their fertilizing practices as promised. Instead WSDA relied on the opinions of a few anonymous experts. For example, one man spoke for 5,000 acres of alfalfa. (See Attachment 1) Who is this man?

B. The WSDA omitted nitrogen from 536 acres of composting in their NAA. Composting is an acknowledged and significant source of nitrate pollution.

C. The WSDA estimated that apple growers apply, on average, 60 lbs per acre of nitrogen to their land at the beginning of the season and end up with an average of 90 lbs of nitrogen per acre at the end of the season. (See Attachment 2). How does this make any sense at all?

Now WSDA appears poised to perform a follow up Nitrogen Loading Assessment for a million dollars (Alternative Solution # 52) and to construct a follow up GWMA administrative program for \$10 million. The WSDA has not acted in good faith during the six-year GWMA program and there is no evidence that this will change in the future.

3. The GWMA Report and Plan is scientifically indefensible and violates principles of ethical research by omitting the overwhelming data from the LYV “dairy cluster”.

The GWMA target area covers about 271 square miles in the Lower Yakima Valley (LYV). The GWMA report states that 12% to 20% of domestic wells in the area have nitrate levels above the safe standard of 10 mg/L.

The report omits the fact that 61% of domestic wells one mile down gradient from the “dairy cluster” exceed the standard, or that monitoring wells on the “dairy cluster” have nitrate levels over 100 mg/L. This is significant. It is the most compelling data gathered from the GWMA target area and the GWMA report pretends it does not exist.

4. The GWMA report underestimates the amount of atmospheric nitrogen deposition by a factor of at least five.

The GWMA report estimates nitrogen deposition at 2.05 lbs per acre. WSDA states that the data was hard to access.

James Davenport, the GWMA advisor who gathered cost data for discussion of proposed solutions told the advisory committee that estimating emissions from animal agriculture, fertilizer and manure applications is not feasible because the Yakima Regional Clean Air Agency is unwilling to do this. The YRCAA has said they were never asked. Mr. Davenport advised the GWMA advisory committee that such a project would be “big and expensive”. (See page 223/226 of GWMA Plan Appendix II)

In fact the work is already being done at Washington State University. See WSU AIRPACT-V at http://lar.wsu.edu/airpact/monthly_depo_ap5.php#

WSU scientists, using the best, most current models, calculate atmospheric deposition in the LYV of about one lb of nitrogen per acre per month for most of the year and over 2 lbs of nitrogen per month for the months August, September and October. This equates to at least five times the amount of atmospheric deposition in the GWMA NAA.

5. Yakima County may not have the capacity/expertise/willingness to administer a robust follow up GWMA program. Yakima County has failed to keep many promises to the advisory committee and to the public over the past six years.

- A. At the beginning Yakima County hired a hydrogeologist to oversee the GWMA project. Then, in 2015, Yakima County replaced him with an attorney.
- B. The County scheduled no GWMA discussions to develop programs that help impacted people access safe drinking water. At this point in time the only program to help the people is the Clean Drinking Water Project administered by the Community Association for Restoration of the Environment (CARE) and the Friends of Toppenish Creek (FOTC) with funds obtained through litigation.
- C. In June of 2014 the GWMA advisory committee approved a Deep Soil Sampling plan with costs not to exceed \$245,025. In August of 2014 Yakima County signed a contract for Deep Soil Sampling at a cost of \$394,563, an unauthorized increase of nearly \$150,000.
- D. Yakima County contracted to evaluate the nitrogen contributions from bio-solids in the LYV. The County did not do this and simply ignores requests for that study.
- E. Yakima County contracted with the Yakima Health District to perform a survey of LYV domestic wells. The surveys were not completed but the YHD received payment anyway.
- F. The GWMA collected data through Deep Soil Sampling in 2014 – 2016 and sampling of 156 domestic wells in 2017. The data was never analyzed and the GWMA simply proceeded without discussing the implications.
- G. In 2012 the GWMA advisory committee agreed to form a work group to address *Funding*. That work group was not convened until 2017 and only met three times.
- H. The GWMA failed to inform and engage the large community of Spanish speakers in the LYV. The only outreach was a campaign telling people to test their wells and buy bottled water. Outreach to inform non-English speakers about the GWMA discussions is non-existent.
- I. At this point in time there is an impressive, interactive GIS map on Yakima County's GWMA website. The data in that map is highly inaccurate. For example, the map states that there is no leaching of nitrogen from alfalfa fields. GWMA DSS data shows

the exact opposite. Many of the fields with the highest levels of nitrate were planted in alfalfa and had been for years.

6. The GWMA report does not comply with the legal mandates for groundwater management programs in RCW 90.44 and WAC 173-100. Legal requirements for a GWMA that are missing from the LYV GWMA plan include:

A. RCW 90.44.410 (1) The groundwater area or sub-area management programs shall include:

(b) A management program based on long-term monitoring and resource management objectives for the area or sub-area;

(d) Projection of water supply needs for existing and future identified user groups and beneficial uses;

(h) Identification of water quality objectives for the aquifer system which recognize existing and future uses of the aquifer and that are in accordance with department of ecology and department of social and health services drinking and surface water quality standards;

(j) Annual withdrawal rates and safe yield guidelines which are directed by the long-term management programs that recognize annual variations in aquifer recharge;

(k) A description of conditions and potential conflicts and identification of a program to resolve conflicts with existing water rights;

(m) A process for the periodic review of the groundwater management program and monitoring of the implementation of the program.

B. WAC 173-100-100 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:

(1) An area characterization section comprised of:

(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;

(3) A section identifying water quantity and quality goals and objectives for the area which (a) recognize existing and future uses of the aquifer, (b) are in accordance with water quality standards of the department, the department of social and health services, and the federal environmental protection agency, and (c) recognize annual variations in aquifer recharge and other significant hydrogeologic factors;

(6) An implementation section comprised of:

(a) A detailed work plan for implementing each aspect of the groundwater management strategies as presented in the recommendations section. For each recommended management action, the parties responsible for initiating the action and a schedule for implementation shall be identified. Where possible, the implementation plan should include specifically worded statements such as model ordinances, recommended governmental policy statements, interagency agreements, proposed legislative changes, and proposed amendments to local comprehensive plans, coordinated water system plans, basin management programs, and others as appropriate;

(b) A monitoring system for evaluating the effectiveness of the program;

(c) A process for the periodic review and revision of the groundwater management program.

7. Alternative Solution #25 is to

*Streamline current regulatory enforcement activities.
Improve customer service and protocols, increase clarity of process, escalate enforcement for facilities not following management practices, identify methods to discourage repeatedly unfounded complaints, and improve overall transparency.*

This is so vaguely worded that it is meaningless.

8. Alternative Solution # 32 is to

*Adopt and Implement an Adaptive Management Plan.
Utilizing data collected, progress made, or lack of progress, to inform the community on adjustments that need to be implemented. Plan would incorporate necessary adjustments to availability of technology, education and outreach, tracking exports,*

land use regulations, treatment systems, and other changes to inform decision makers regarding management changes necessary for a successful Program.

This is so vaguely worded that it is meaningless. This is like saying we need a floor plan for a house without saying whether it is a \$50 cabin or a \$1 million castle, whether it is one or three stories, whether it is wood or concrete construction, whether there is indoor plumbing or not.

The GWMA has not discussed what an Adaptive Management Plan would look like. It is a popular buzz word with many interpretations. Thinking people need more clarity before voicing support or rejection for this particular solution. Effective Adaptive Management Plans are complex.

There is no reference to funding that would support such an endeavor. The Alternative Solution requires Yakima County to create an Adaptive Management Plan and the County does not have the resources to do this on our own.

10. Where is the plan for analyzing the well samples from the thirty LYV monitoring wells?
 - A. How often will sampling be done?
 - B. Will it be passive or active sampling?
 - C. What is the relationship between individual wells and nitrogen sources?
 - D. What hypotheses are we testing?
 - E. Which statistical tests will we use for trend analysis?
 - F. How will the monitoring “address effects of changes in nutrient application over the agricultural cycle” as described in Alternative Solution #2?
 - G. How will the monitoring “track whether time-based performance objectives are being met” as described in Alternative Solution #2
 - H. What are the GWMA approved “time based performance objectives”?