

Flawed Management of the GWMA Decision Making Process for Selection of Alternative Management Solutions

The GWMA leadership began the process of selecting alternative solutions to the problem of nitrates in groundwater without data that describes and quantifies the problem. The group had not agreed upon the major sources of nitrate contamination and did not prioritize solutions based on that foundation.

The GWAC frequently asked for cost information prior to decision making. That information was not delivered until late April when the number of solutions had been narrowed to 66. In May the GWAC was asked to perform a screening.

Members of the group stated that they had more to discuss, but on June 21, 2018 the leadership asked for a vote to use the alternative solutions that received a positive vote as the final list for the GWMA plan. Twelve members voted in favor and that list of alternative solutions became the solutions proposed in the GWMA plan.

During the GWMA meetings from June 2017 to June 2018 promises were made and promptly forgotten. Examples:

- August 10, 2017 – Promise to measure the effects of GWAC program on Yakima County economics
- August 10, 2017 – Will not share the Nitrogen Availability Assessment until it has been fully vetted
- September 21, 2017 – Will discuss solutions that address the needs of people in the GWMA target area whose wells have nitrates greater than 10 mg/L
- October 19, 2017 – Will craft language that includes the EPA's Community Multiscale Air Quality Modeling System in solutions to address emissions to the ambient air and atmospheric deposition
- October 19, 2017 – Will convene the GWMA Funding Work Group to discuss cost for proposed alternative solutions
- November 2, 2018 – Will add analysis of nitrates from bio-solids to the Nitrogen Availability Assessment
- December 7, 2017 – Ecology and DOH will analyze survey data from the High Risk Well Assessment
- February 15, 2018 – Will convene the GWMA Funding Work Group to discuss cost estimates for proposed alternative solutions
- February 15, 2017 – WSDA will put some numbers together for the group of quarterly and annual costs analysis, sampling and review of data for well testing

Review of GWMA Meeting Summaries July 2017 to June 2018:

June 29, 2017:

Jim Davenport introduced a list of 247 Alternative Solutions to address elevated nitrates in the LYV groundwater. **Note: The GWAC had no Area Characterization, no High Risk Well Survey Analysis, no Deep Soil Sampling Analysis, no System of Purpose Built Wells, no Data from Domestic Well Monitoring, and no Nitrogen Loading Assessment.**

Here is a breakdown of the solutions compiled by Yakima County:

Education and Public Outreach (N = 47)

EPO to Farmers (N = 25)

EPO Private Wells and Septics (N = 7)

EPO Educate the Public about Pollution and the GWMA (N = 2)

EPO Health (N = 2)

Communication with the Spanish speaking population (N = 2)

Data Collecting and Analysis (N = 26)

State Regulatory Authority (N = 22)

Domestic Wells (N = 21)

Incentives (N = 20)

Septics (N = 18)

Nutrient Management Plans (N = 16)

Local ordinances re Ag (N = 13)

Best Management Practices (N = 12)

Abandoned Wells (N = 8)

Local ordinances re people (N = 4)

Lagoons & Ponds (N = 2)

Composting (N = 2)

Note: There were 18 proposed solutions addressing septic systems – 2% contribution to nitrates in GW, and 2 proposed solutions addressing lagoons and

ponds – 19% contribution to nitrates in GW. There were 8 proposed solutions addressing abandoned wells – a very small and unconfirmed source, and 2 proposed solutions addressing composting operations with > 500 acres of manure stacked on bare ground. There were no proposed solutions to assist the people with polluted wells. There were no proposed solutions to address the large amounts of reactive nitrogen that are emitted from animal livestock operations and manure applications to cropland.

July 27, 2017:

The GWAC began discussing alternative solutions. Several alternative solutions were added, including requirements to address emissions to air.

August 10, 2017:

The GWAC agreed to discuss Alternative 46: Measure the effects of GWAC program on Yakima County economics at a later date. **Did not happen.**

Regarding the NAA “Vern went on to say that whether this action was right or wrong the group needed to agree that they would not share information that had not been fully vetted.”

In fact WSDA and Yakima County went on to finalize the document in mid-2018 without GWMA approval. It has been presented to the public by WSDA.

September 21, 2017:

“One member wished to discuss how the GWAC’s ultimate recommendations would be paid for. Another member wished to discuss solutions that address the needs of people in the GWMA target area whose wells have nitrates greater than 10 mg/L, citing the ‘Immediate Public Health Needs’ on page 21 of the GWMA Work Plan. Another member wished to discuss the initial results from the USGS sampling program. All these matters were deferred.”

“Funding sources will be discussed at a future meeting.” **There were frequent requests from the GWAC to analyze costs before narrowing down the list of potential solutions.**

“Solutions that address the needs of people in the GWMA target area whose wells have nitrates greater than 10 mg/L will be discussed at a future GWAC meeting.” **Did not happen.**

October 5, 2017:

Member asked for a report from the Funding Group. Vern Redifer told the member to read the meeting summary.

Alternatives related to enforcing the Washington State Clean Air Rule will be discussed at the next GWAC meeting.

October 19, 2017:

Vern informed the group that Jean Mendoza had rewritten the alternatives related to enforcing the Washington State Clean Air Rule and displayed Jean's five rewrites on the screen.

Ultimately the group agreed that Vern and Lucy would work together to craft language for these alternatives to reflect the GWMA's support of this EPA endeavor outlined by Lucy for the LYV GWMA.

Group had completed review of the Alternative Solutions and it was time to put them in a cogent form. **There were still no cost estimates**

"Once the list was agreed upon in its final format the alternatives would be discussed at the Funding Working Group meeting in order to explore funding possibilities." **There were no meetings of the Funding WG after September 2017.**

The GWMA Funding Work Group met on June 14, July 12 and September 13, 2017.

November 2, 2018:

There was discussion about conversion of organic matter to nitrate. "Gary (Bahr) responded that a one percent difference amounted to 20 pounds N/acre."

This is incorrect. Page 36 of the original NAA states: "In general, organic matter in soils can mineralize to provide between 20 and 65 lbs N/ac per 1% organic matter for crop utilization." and, "WSDA used 2.17% organic matter (based on the deep soil sampling results) and conversion rates of 20, 42.5, and 65 lb N/ac (for low, medium and high estimates) for each 1% organic matter."

Mr. Bahr is one of the authors for the NAA. Another author was sitting in the audience and she said nothing. They simply led the GWAC to believe something that is not true.

Comment 80: “The report does not include an analysis of Biosolids.” Vern stated that an analysis of biosolids would be included in the next draft of the NAA. **Bio-solids were never added to the NAA, in spite of the fact that EPA had gathered data on the amount of nitrogen available from bio-solids in Yakima County. The EPA documented that as high as 419,000 lbs of nitrogen per year had been added to Yakima County cropland. (EPA Lower Yakima Valley Project Nitrogen Loading Screening Analysis, 2012, page 14)**

The lack of analysis on compost was also raised. Gary stated that this was being looked into by WSDA. **There is convincing data on leaching from compost. This information was never added to the NAA.**

The group agreed to continue the discussion of the NAA at the next GWAC meeting. An updated list of summarized comments would be distributed to members, with subjects resolved at this meeting crossed out. **Didn't happen.**

A member commented that the whole point of the GWMA was to help the people of the Lower Valley, and the group was quickly running out of time and money

December 7, 2017:

Jim Davenport presented the first four chapters of the GWMA Plan:

- Introduction
- Area Characterization
- Sources of Nitrate and the Regulatory Environment
- Yakima County's Role in Groundwater Quality Protection

Vern said that Melanie Redding and Andy Cervantes were reviewing the data (High Risk Well Survey). **Based on response to a public records request FOTC believes that there were no survey results and Mr. Redifer knew this when he stated that people were reviewing it.**

The GWAC agreed to meet twice a month from January to June if there was material to discuss. The agencies were very slow delivering material. Meetings were: February – 1, March – 1, April -1, May – 2, June 1.

The list of Alternative Solutions had been narrowed down to 84. **Still no cost estimates.**

February 15, 2018:

Jim Davenport stated that the county had gone to the agencies for funding input. After that came back the county would talk to the Funding Work Group about the estimates. **The Funding WG never re-convened.**

At the July 12, 2017 Funding WG Gary Bahr had committed to “put some numbers together for the group of quarterly and annual costs analysis, sampling and review of data for well testing from the work he had done (spreadsheets of examples – not a bid).” FOTC asked for the second time whether that information would be provided. Mr. Bahr said “yes”. **He did not follow through.**

March 1, 2018:

Discussion of regulations in the plan. Jim Davenport stated that any alternatives with regulations were rejected by the group last year. **FOTC would not have agreed to this. FOTC shared a document from the beginning of the GWMA, 2010 Vital Elements of a Groundwater Protection Body, that underlined the importance of regulations. David Bowen stated that any request for a change in regulations would best be supported by a white paper. FOTC followed up with a short paper (Attachment 33) and request for enforcement in RCW 90.64. This proposed alternative was never brought to the GWAC.**

“A member recalled that the GWAC had agreed not to proceed with proposed strategies and recommendations until cost data is available, so as to better prioritize solutions.”

May 3, 2018:

GWAC was led to believe that bidding to drill 30 purpose built wells would start soon..

Yakima County had narrowed down the list of proposed alternatives to 66 items. GWAC asked for an opportunity to discuss the alternatives in light of cost estimates but instead the group was asked to rank the 66 alternatives. **By this time any thoughts of outreach to the Spanish speaking community were long forgotten.**

May 17, 2018:

There was discussion about the ranking of alternative solutions, but no pathway for resolving the concerns. 17 Members of the GWAC had ranked 66 proposed alternative solutions.

One proposed alternative was listed twice. The proposed solution was to “Explore investment in animal and agricultural waste to energy technology.” It received 22 points at one voting location and 16 points at the other.

June 21, 2018:

Jim Davenport introduced Volumes I & II of the GWMA Plan

Funding Group

The GWMA Funding Work Group met on June 14, July 12 and September 13, 2017.

Promises were made at these meetings. There was little follow through.

According to summary for the July 12, 2017 meeting of the Funding Group

“A member wanted to know if well monitoring costs would include funding for analysis, sampling and review of data. Vern indicated that the Data Collection Working Group would be coming up with a plan for analysis of this data and added that all of the costs associated with monitoring would be in one package.”

The Data Work Group did not discuss a plan for data analysis. There is no package for monitoring, analysis and associated costs.

“Vern (Redifer) asked Laurie (Crowe) to give some thought to what kind of program she would put together considering the potential alternatives discussed and approved at GWAC meetings, what it would include and what it would cost. . . . Laurie agreed.”

This draft program was never delivered by SYCD (Laurie Crowe)

See Attachment 60