

## Data Collection, Characterization, Monitoring

### Charge from Groundwater Management Area Advisory Committee

#### Working Group Members

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Melanie Redding (Chair); Andres Cervantes; Bob Stevens; Charles (Pony) Ellingson; David Bowen; Chelsea Durfey; Dave Cowan; Doug Simpson; Elizabeth Sanchez; Frank Lyall; Ginny Stern; Jaclyn Hancock; Jan Whitefoot; Jean Mendoza, John Van Wingerden, Kevin Lindsey; Laurie Crowe; Lino Guerra; Mike Shuttleworth; Ralph Fisher; Robert Farrell; Ron Cowin; Scott Stephen; Steve Swope; Stuart Turner; Dr. Troy Peters

#### Meetings/Calls Dates

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Meeting: Wednesday, February 22, 2017, 1:00-3:00 PM  
Call Number: 509-574-2353 pin: 2353#

#### Participants

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Present: Melanie Redding (Chair), Steve George, Jean Mendoza, Jim Davenport, Vern Redifer, Gary Bahr\*, Steve Swope\*, Laurie Crowe\*, Rodney Heit (SYCD)\*, Ginny Stern\*, Margaret Drennan (WSDA)\*, and Bobbie Brady (County support staff) \*via phone

#### Key Discussion Points

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Melanie Redding opened the meeting at 1:06 PM. Melanie indicated there were a few issues with last month's meeting summary. In particular, the flow diagram about the nitrogen loading presentation was incorrect. Melanie also added completion of the EPO questionnaire to the agenda so that the group could compile its ideas and return it to EPO in a timely manner.

**Monitoring Initiatives Status:** Melanie reported that PGG is preparing a number of documents. Vern indicated that he would be presenting an interlocal agreement with USGS to the Yakima County Board of County Commissioners next Tuesday to conduct sampling and testing for the drinking water initiative and monitoring and sampling of the purpose built wells once installed. PGG is writing an updated agreement and QAPP for the testing regiment for the purpose built wells. Melanie desired to have the USGS and PGG documents integrated so that someone looking at the plan long-term would know exactly what the group did. Vern added that while USGS would do the testing in 2017, he was trying to find a home for ongoing testing starting in 2018 and had been in discussions with Yakima Health District about taking this on. There are many details yet to be worked out. Vern didn't know who would be in charge of data analysis long-term. Melanie thought it would be good for the group to talk about, iron out and document.

A member asked if the QAPP the USGS was developing will depend on what substances were being tested for and if the group was going to discuss this. She would like to see a test for chloride as chloride/bromide helps determine the source of the nitrate. Several members reminded everyone that USGS will test for nitrates only as this was what the GWAC agreed to and

allocated money for and there was no additional funding available in 2017. The group discussed this. Ginny Stern stated that given funding issues it was important to get the project going. Other tests could be added down the road, but she thought keeping the data simple during the first year would add value. The member also asked if USGS was planning on doing active or passive sampling. Vern said the sampling would be active as cost was a factor and both give true results. Vern said the plan was to sample each drinking water location six times in 2017 and the monitoring wells every two months, but if they aren't ready until June it would be every month.

A member asked Vern about ongoing sampling in 2018. Vern reminded the group that David Bowen from the Department of Ecology said in the absence of anyone else they will continue sampling. The group discussed several routes for funding – legislative, the Department of Ecology, the Department of Health or through the Yakima Health District. Ginny said that other Counties had made funds available for this process too through their health districts. It was finally suggested that Yakima County, Yakima Health District, Department of Ecology and the Department of Health sit down together to discuss – Melanie and Vern will set this up.

**Data Analysis:** Melanie felt it was important to document data analysis of those tests to be collected and those collected previously so that the intent of the group is known long term and to establish boundaries on how to report what this means. Jim said that the activity of analysis will be done after 2017. A member wanted to know if well water testing would be used to analyze the effectiveness of BMPs. Melanie said that funding for this was not approved by the GWAC. Another member pointed out that one year's worth of data would not result in a correlation between what's being done on the ground and what is found below the ground. Vern did believe that several years from now trends would become evident and suggested that as the Irrigated Ag group discussed BMPs they needed to also address how they are going to measure effectiveness. Melanie added that when the group started its conversations last fall the GWAC approved the Ambient Monitoring Network and the Data group agreed that its next priority was drinking water and hot spots, the other initiatives got very few votes and the group must focus on what the GWAC approved and must be dealt with first. The group agreed that Melanie and Matt talk about a proposed plan for data analysis.

As for the data analysis of the deep soil sampling Melanie will talk to Troy Peters to see if he would do this. Her goal was "this is what we think the data says and this is what we know it does not say." Gary Bahr recommended Dr. Todd Coffey from WSU at the Interdisciplinary Center for Statistics. Ginny and Melanie wanted access to the data as well. A member wanted to know who would be analyzing the data when it was finally decided and mentioned it was important to her that Troy was involved as he was familiar with what crops should be grouped together. With regard to the well assessment survey Vern will provide the information to Ginny.

**Other Technical Issues/Next Steps:** Vern is waiting for latitude and longitude points from PGG for the well locations so that someone can go out and drive a stake with a flag in the ground noting where they will be drilled. Age dating was discussed but will not be included. The goal is to keep it simple and include what has already been approved. An addendum for chloride could be considered later and estimates were \$30-\$40 per test. For now the focus will be on the parameters that were approved by the GWAC. Ginny indicated that specific conductance, which is a field test that is being measured to assess when groundwater is stable, can also be used as an indicator of salt content (such as chloride). This test would provide information that is

compatible to a chloride test. Vern confirmed that this specific conductance will be taken. Ginny said that this information could be used later to determine where to test for chloride.

Melanie is working with Steve on how best to incorporate several dairy cluster sites into the ambient monitoring network. Not all of these sites will be included in the ambient monitoring network plan, but there will be specific data analysis of dairy cluster well testing as a separate item. A member mentioned that because the dairy cluster was being monitored intensely, and the dairies are lining their lagoons and limiting nutrient application it would be interesting to see a BMP analysis especially since their testing had begun three years ahead of the GWMA's work.

Melanie said that the goal is to understand what programs do or don't do so there are no false expectations when monitoring. Jim suggested that a document be prepared entitled "Monitoring Management Plan." This would include goals, objectives, descriptions of processes for the ambient monitoring network, drinking water and drains and a data analysis section.

**Nitrogen Loading Assessment (NLA):** Melanie and Gary Bahr had worked out a date to present the NLA to the working groups - April 13 and Bobbie was tasked with working out a meeting place. Melanie proposed educational components be presented in the morning on the nitrogen cycle, hydrological cycle and climate. The Nitrogen Loading Assessment presentation would take place in the afternoon. The NLA would be released to the members two weeks before (last week of March) and then participants would have a couple of weeks to submit responses. The Data, Irrigated Ag, RCIM and Livestock/CAFO Working groups would be invited. Melanie was sorry for the further delay; others were disappointed as well, but she just learned that there were several internal hoops that had to be met before the Department of Agriculture would release the document and spring break factored in as well. A member asked that the literature referenced in the report could be sought out easily.

**EPO Questionnaire:** Melanie asked everyone to write down their responses to the questionnaire and send them to her; she will compile the information into one draft. Vern said that the questionnaire was an outgrowth of an EPO meeting as they were given the responsibility to educate, engage and inform people what the GWAC is doing.

Jim thanked Melanie for volunteering and her leadership. The meeting was adjourned at 2:52 PM.

## Resources Requested

## Recommendations for GWAC

## Deliverables/Products Status

## Proposed Next Steps

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- Melanie and Vern will set up a meeting between Yakima County, Yakima Health District, Department of Ecology and the Department of Health to sit down together to discuss funding for ongoing sampling.
- Melanie and Matt will discuss a proposed plan for data analysis and bring it to the group.
- Melanie will talk to Troy Peters about doing the data analysis of the deep soil sampling. Ginny and Melanie wanted access to the data base as well.
- Vern will provide the information to Ginny on the well assessment survey for analysis.