

## Data Collection, Characterization, Monitoring

### Charge from Groundwater Management Area Advisory Committee

A discussion of timelines and details regarding the Nitrate Loading Assessment

### Working Group Members

Melanie Redding (Chair); Andres Cervantes; Bob Stevens; Charles (Pony) Ellingson; Charlie McKinney; Chelsea Durfey; Dave Cowan; Donald Brown; Doug Simpson; Elizabeth Sanchez; Eric Winiecki; Frank Lyall; Ginny Stern; Jaclyn Hancock; Jan Whitefoot; Jean Mendoza, Jennifer MacDonald; Jim Trull; John Van Wingerden, Kevin Lindsey; Laurie Crowe; Lino Guerra; Kirk Cook; Mike Shuttleworth; Ralph Fisher; René Fuentes; Robert Farrell; Ron Cowin, Scott Stephen; Sheila Fleming; Steve Swope; Stuart Turner; Dr. Troy Peters

### Meetings/Calls Dates

Meeting: Wednesday, March 9, 2016, 10:00 AM

Call Number: 509-574-2353 pin: 2353#

### Participants

Present: Melanie Redding (Chair)\*, Gary Bahr, Laurie Crowe\*, Jim Davenport, Steve George, Jean Mendoza, Ginny Prest, Vern Redifer, and Bobbie Brady (Yakima County Support Staff)

\*via phone

### Key Discussion Points

Chair, Melanie Redding, opened the meeting at 1:05 PM. Several members commented that they enjoyed having the meeting changed to the afternoon of the second Wednesday of the month (rather than the second Thursday of the month) since the Regulatory Working Group meeting was held in the evening on the same day. They found the timing to be more convenient as it allowed them to attend two meetings in a short period of time rather than two meetings on two consecutive days. This made it especially convenient for those who had to travel from the west side of the State. All of the members in attendance were open to making this a regular schedule. It was agreed to inquire of those absent members to see if the meeting date and time could be changed permanently.

Melanie also informed the group that she was calling in from her home because a fire alarm had gone off at her place of employment requiring her to exit the building. Unfortunately, in her haste she had neglected to bring the Working Group file with her which meant she would need to provide information to the group on the status of various reports from memory.

## Update on the Nitrogen Loading Assessment

Melanie let the group know that the three members of the peer review committee had finished their review of the Nitrogen Loading Assessment report on livestock. Melanie is currently waiting for the electronic comments to come in from her fellow peer reviewers and she will forward them on to the WSDA for a response.

In addition, Melanie had just received the piece for irrigated agriculture. The report has been sent to the peer review committee who will get to work on it right away. The committee was still waiting for the report on RCIM from the County. (NOTE: The County was given a new task to add to this report later on in the meeting, which may affect the timeline of its completion a bit).

Melanie reiterated that the greatest challenge continues to be the application of the same methodology on all three reports that are being produced by three different authors. This is an issue the peer review group is addressing as they respond to the authors as they review each piece.

Melanie hesitated to give the group a time frame for the completion of the draft reports as there are lots of moving parts. Melanie (like the committee) wants it done, but her priority is that it be done well with good numbers - everyone is doing the best they can. She will give the finished reports to the working groups at the same time.

A member asked Jim Davenport if he would be able to complete the area characterization or if he would need to wait until the nitrogen loading assessment reports were complete. Jim said he could finalize the area characterization report without the nitrogen loading assessments, but felt it would be better served if he waited for all of the information. A member voiced their concern about time frame and about being underfunded and under resourced. Melanie responded and emphasized she was trying to foster the completion of each report in the most efficient manner but challenges keep popping up. She also felt the group was doing the best possible job with what they had to work with.

Melanie went on to state that she continues to feel it is important that each report provide a range of numbers – high, low, mean and median. She is also concerned that atmospheric deposition calculations have been applied to some sources but not to others in the reports already received. She explained that the reviewers want direction as to how to handle this consistently. One thought had been that the matter of atmospheric deposition could be pulled out from the reports entirely and dealt with as an issue on its own. That way it could be factored back in to each source in the same manner and allow for greater continuity.

Jim Davenport addressed member Jean Mendoza regarding the material she had sent to several members on atmospheric deposition in response to the draft spreadsheets she had received from Perry Beale as part of his work on the irrigated ag piece of the Nitrogen Loading Assessment. Jim wanted to know where the material had come from – Jean responded and said it was information on studies done in both Whatcom County and California. Melanie indicated she had also received the information from Jean and thought it provided good background information.

Another member pointed out that there should be some set parameters when choosing study data for atmospheric deposition, i.e., studies done in areas with similar climate conditions. The concern was that the material provided from Whatcom County would not be applicable as the climates are too dissimilar – the temperatures differed too greatly which would cause differing rates of evaporation. The member went on to suggest research done in climates like San Joaquin, California, because of the similarities which might produce numbers similar to the GWMA. Temperature, time of year and moisture are all variables that need to be factored in. The member went on to say, however that the County could take the information Jean had provided and do a literature search from that information then apply the numbers found.

Vern suggested that atmospheric deposition be pulled out of all three of the pieces being written for the Nitrogen Loading Assessment and handled as a separate topic. He volunteered the services of Yakima County to process the data as part of the RCIM piece. A member asked Vern if his staff was competent to come up with an appropriate number. Vern explained that while none of the staff had the scientific expertise to determine the appropriate rate of atmospheric deposition in the GWMA, he did have a very competent research staff member that could search out studies that would provide the County with the scientific information needed to process the data. The research staff would then run a low, high, mean and median number and provide explanation and reference for each. Vern went on to explain that he was concerned that the percentage of nitrogen attributable to atmospheric deposition in the GWMA was low. Therefore, he felt due diligence would be best served by allowing the County staff to research the topic. He did point out, however, that if the number turned out to be higher than originally thought, the working group could choose to take a closer look and perhaps choose to pursue other avenues of research and/or study. His thinking was that if the researchers did good work up front it would allow the working group to see if the numbers varied enough to dig deeper.

Melanie thought this was a good idea and was also not sure that an expert was required at this point to perform the task. She felt that what Jean had submitted had given the group good references and information that was consolidated and provided a good start for the research Vern had described and volunteered his employees to do. Melanie didn't feel the group necessarily needed someone's testimony, but did require published data. The County, in its RCIM report, would be required to present in detail how, where, why, and from whom they came up with any numbers they used in each of the ranges. Not only would the peer reviewers be able to confirm the authenticity, but since the reports were going to be presented to the working groups each member would then also have the ability to see the decisions that were made and compare it with the information they have to decide its validity. At that point the working group could determine if more research would be needed and it would allow the GWAC to better allocate its resources.

A member voiced concerns about the cost billed by the County to the GWMA for this additional research and that the percentage of contribution to the nitrate levels from atmospheric deposition might be greater than the group thought. When asked by the working group what the member thought the percentage might be they stated three (3) percent. Several members indicated that they did not feel this was a significant contribution and therefore it would not warrant spending a great deal of money on or pursuing in depth. Jim Davenport said he thought that if the contribution atmospheric deposition made toward the nitrate level was three (3) percent he did

not foresee a lot more money being invested in further study. However, if the number did in fact turn out to be much larger the group could look at it and consider spending money specifically in that area at that time.

Vern also addressed the cost for the County to research this topic and indicated that he felt Yakima County could use a great deal of information already available to them through the Census Bureau and GIS literature. He did not feel that this would be that large of an endeavor. He also explained that the County only charged the GWMA for its hourly employees – the time for the salaried employees was merely integrated into their already existing work time. Another member spoke up and said that more money was being donated to work for the GWMA than what was being billing out. Vern agreed this was true for the County and he thought it was probably true for the Department of Agriculture as well.

A member spoke up and said he appreciated Vern's idea and offer. It was agreed that the County would work through the information and studies already done and come up with a range of numbers. They would document their findings thoroughly. All of this would be added to the RCIM report and go through the peer review process for quality assurance. At that time it would be presented to the working group and the working group could respond.

#### **Update on the Ambient Monitoring Network**

PGG is working on this and will update the group possibly at the next meeting. Vern thought that PGG was close to describing the recommended locations.

#### **Other Issues**

A member inquired as to whether anyone was looking into subsurface drains when doing the nitrogen loading assessment. It was suggested that the issue be raised this evening at the Regulatory Working Group meeting since Ron Cowin from SVID was speaking on irrigation districts and the collection of groundwater. Another member voiced concern as to whether this was a source or a conveyance. Vern indicated Mike Martian of GIS could help with this. He would need to know where the drains are in order to plot them and questions answered as to volumes, dilutions, and conveyances to surface water. If this information was assembled Mike could plot this and look at it with an overlay map to see if the drains are transporting water to other locations. All drains were converted and are managed by SVID who uses them as return flows to remove excess irrigation water.

A member asked if they had done testing on turbidity and sediment transport – Jean will check into this as well at this evening's Regulatory meeting. This will allow the group to determine if they need to consider these as a source in the Nitrogen Loading Assessment.

The information we need from Ron Cowin is: what information do you have on mapping, water quality sampling and flows as it pertains to subsurface drains and also whether this was a source or conveyance.

Chair, Melanie Redding adjourned the meeting at 2:20 PM

**Resources Requested**

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**Recommendations for GWAC**

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**Deliverables/Products Status**

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**Proposed Next Steps**

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