

## Livestock/CAFO Working Group

### Charge from Groundwater Management Area Advisory Committee

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Discussion of data sources and remaining Work Plan Items

### Working Group Members

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David Bowen, Chair (Department of Ecology), Gary Bahr (Department of Agriculture), Elizabeth Sanchez (Yakama Nation), Jason Sheehan (Dairy Federation), Jim Newhouse (South Yakima Conservation District), Laurie Crowe (South Yakima Conservation District), Sue Wedam (LV Community Rep.), Patricia Newhouse (Community Rep Position #2), Steve George (Yakima County Farm Bureau), Stuart Turner (Turner & Co., Inc.), Jean Mendoza (Friends of Toppenish Creek), Jim Dyjak (Concerned Citizens of the Yakama reservation)

### Meetings/Calls Dates

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Meeting: Thursday, June 2, 2016 5:00 – 7:00 PM

### Participants

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David Bowen, Dan McCarty, Jim Dyjak, Stu Turner, Larry Fendell, Jean Mendoza, Laurie Crowe, Steve George, Jim Davenport, Jason Sheehan, Vern Redifer, and Bobbie Brady (Yakima County).

### Key Discussion Points

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Chair David Bowen opened the meeting and asked everyone to introduce themselves. He explained that Items 1 and 2 on the agenda were designed to help him get up-to-speed and to ensure everyone was on the same chapter since the group had not met since April, 2015.

No. 1 – Status/Nitrogen Loading Study: Jim Davenport updated the group on the process for this study. There was some discussion about the RCIM piece and the septic study that had been discussed at the last RCIM meeting. A member of both groups reported that funding from a source outside the GWMA had been identified and they were now looking for experts to staff it. The report would be available to the GWMA for their use and prepared in a manner that would withstand peer review. A presentation could be made to the group as well if that was desired.

Another member asked when the nitrogen loading study would be available – Jim and Vern explained that the objective was to have the study to the GWAC at its October, 2016, meeting which meant that everything would need to be through the peer review process, to the Data working group for their consideration and also to each applicable working group for their comments as well. The GWAC could then consider the study with the confidence that it had been reviewed by everyone.

A member spoke up and made a motion to abandon the nitrogen loading assessment as it had delayed the process too long and to return to the 2013 EPA study that had been previously discarded. Another member seconded the motion. A discussion ensued as follows:

- a. A member voiced that it was their recollection that the study done by the EPA was not specific enough as it utilized literature values for the work whereas a study done by the GWMA would allow the group to move forward with specific values and better facilitate discussions on how to solve the problems within the group's target area.
- b. Another member didn't feel they could comment as they didn't remember the 2013 EPA study.
- c. David noted that he believed the study was done in 2010 and that the modeling lacked specificity. Another member said that they appreciated the loading assessment the group was doing as it would have quantified rates.
- d. A member commented that the completion of the group's nitrogen loading assessment was taking too long – the group had been told 90 days and it had taken a year.
- e. Vern pointed out that the completion of the study had not in fact kept the group from moving forward as Irrigated Ag had already begun talking about solutions to the problems. He added that other groups could easily hold these discussions now as well since percentage allocation of loading would not cause a change in solutions but may only cause a difference in the allocation of resources.
- f. David pointed out that the agenda for the evening (No. 5) already allowed for a discussion about solutions to make the situation better.
- g. Another member could not see any valid reason for abandoning the assessment now as relevant information continued to come in.

The group also discussed the WSDA industry testing of pens and corrals at the requests of landowners which were performed by scientists and experts in the fields. A member was concerned that citizens had been left out of this testing. It was noted that it was not the standard to bring in non-scientists into the scientific process. The dairy farmers who granted access were not present and did not participate either. David noted that there are standard "quality assurance" procedures which would allow the testing to pass muster with peer reviewers. Another member felt this and the lack of completion of a literature review led to a lack of trust. Vern pointed out that Kirk Cooke had said that they could get research from pens and corrals which would negate the need to use literature data. It was Vern's belief that actual data was the better choice. He suggested the group could now consider some literature review if they desired and see how it compared to the actual data. He also pointed out that the group could just agree that there is a contribution and move forward with their discussions about solutions. David ended the discussion and put the motion to a vote. Three voted for, one abstained and the remainder of those present voted against the motion.

Vern reported that the RCIM piece had been revised several times due to suggestions or literature provided in various working group meetings. GIS researched the suggestions and literature and added to the piece where appropriate. It would have been completed a while ago, but it was strengthened by this process. An example would be the data on the septic tanks – a member had noted that the population in the GWMA changed season to season. GIS obtained information from the Department of Agriculture and the Employment Division. As a result GIS was able to capture in the RCIM piece the change in the demographics within the GWMA boundaries from season to season. Vern believed the product will be better and there would be an acceptance of the data within the group because their input had been validated.

Jim Davenport added the group had also benefited because the nitrogen loading assessment information exists in a geographic format and the group witnessed this firsthand at the last GWAC

meeting when the GIS department made their presentation. The nitrogen loading from septic systems, for example, allowed the group to move from hearing “40 tons over the whole GWMA” to seeing density loading maps providing the option to visualize the density of septic tanks in their specific locations. The maps will also allow for an overlay of differing sources.

A member pointed out that based on their personal studies they were concerned atmospheric deposition was as big of an issue as septic. Vern said that they had found through literature research a map of the US in GIS which could be requested in geographical blocks. This could be enlarged and would reflect the points in the GWMA with wet, dry, and wet and dry atmospheric deposition at 3 to 6 lbs. per acre. Vern would send this out if it was desired.

Laurie Crowe said that she had read an article that had been distributed worldwide that said that livestock was the least contributor of nitrates. She will look for the article and circulate it.

Jim Davenport asked the member what they wanted to talk about as the group had already assumed atmospheric deposition was a source in the same manner as septic and lawns and included it in the RCIM report. Vern pointed out that it was presumptive to hand out the RCIM report at this time as it was still in draft stage. He would provide the background studies, but had a problem releasing work that hadn't gone to peer reviewers. Another member noted that atmospheric deposition wasn't pertinent to the discussion of the livestock group but should be contained to the RCIM group.

No. 1 – Status/Literature Review: Vern recalled conversing with the Department of Agriculture to ask them what they were doing relative to literature and/or studies on pens and corrals. A member recalled very little literature out there and none relative to this region which is why the group did its own testing. Jim Davenport believed pens, corrals, composting and lagoons had been discussed. Another member was concerned that the NPDS permit Ecology is working on due out in final format in November would be in conflict with what would be proposed by the GWAC. David said that some review was done, mostly out of the region so he was concerned it was not applicable and thought it was good the group had done their own. David indicated that he had met with persons at Ecology and the NPDS draft will be out June 15. They are on schedule and November is the worst case scenario completion date.

A member expressed concern that little help had been given those people with polluted wells and that little would be done to solve the issues they believe to be caused by livestock/CAFO's. Another member pointed out that there were hot spots near the Tri-Cities as well (on maps provided to the working group by David) in areas that contained no livestock or CAFO's and suggested that if trust in the group was the goal it was important for members to refrain from offering their opinions because it causes distrust as well.

A member suggested a website would be convenient with links to go look at literature. Vern stated that the County was revamping a website page for the Regulatory group and is developing a policy to check the links every two weeks to insure that they are still viable.

The group had talked about hiring several experts. Vern remembers Charlie talking about it and a start-up budget of \$10,000 to do some deep soil sampling of pens and corrals and also to pay someone to look through the literature. However, it was his recollection that Kirk Cooke talked Charlie out of it. A member wondered if there was some modest way to do this and felt that the

group needed a 5-10-20 year study that could better inform the group where to put the money. David and Vern will talk about this. It was also mentioned that the Department of Agriculture may already be doing this and David agreed to call and find out how thorough the data review was. Vern suggested he call Melanie Redding first as she had done the peer review. A member said that they want to meet about literature to see what goes on the web. Another member asked that criteria for literature be established.

No. 1 – Determine how various studies should be evaluated for credibility, relevance, etc.: Jim Davenport felt it was important to find the literature to be reviewed before determining what credibility meant to everyone in the room and that relevance was easy to determine. David agreed that the group should have the studies in front of them. Another member noted that when an article is cited by others the article is more credible. Journal ranking, what other sites say about that issue and who did the peer review also add to an article's credibility. A member voiced that it was important to discuss the issues if there was a problem with a piece of research.

No. 1 – Other: No other issues.

No. 2 – Status on Working Group Plan: David explained that the group needed to ascertain whether or not the work plan (A-I) was done. He had read through the minutes from 2014-15 and couldn't tell if this had been completed - Jim Davenport did not believe so. A member felt that some of 2.1.3 had been done. Another member felt that 2.1.2 needed to be source specific. Another member believed 2.1.1 and 2.1.2 were GWMA goals that the GWAC would answer.

Another member wondered if 2.1.7 was what PGG was doing. A discussion ensued. One member believed that the strategies for this would come out of this work group since each potential source is work group specific. Examples for monitoring for the Livestock/CAFO group may include ideas on how to monitor compost and/or pens. Vern said monitoring could also be the PGG program itself which was trying to assess a sense of overall groundwater quality in GWMA. However, it wasn't designed to monitor the success of a particular strategy unless it does so by coincidence.

A member suggested a two-step monitoring program. The first step would be to monitor if people were participating in the solutions and gain information on early values and the second step would be to monitor the groundwater. Another member thought this would be a good idea as it would provide early results.

A member wondered if under 2.1.3 BMP's would be monitored as well. David noted that he believed 2.1.5, 2.1.6 and 2.1.7 should be read together in this context.

Vern suggested that a possible monitoring effort by the Irrigated Ag group would be to perform deep soil sampling tests again in two years. It would provide an easy way to see if there was improvement. If the numbers remained predominately the same it would make it clear that the solutions (BMP's) didn't work. A monitoring program should see if the "we participated, we were educated, we were assisted with the goal of making a change" efforts were accomplished.

David indicated he was going to attempt to go through the status goals (highlighted in bold) in order to better see where the group is at now that he had received everyone's input. A member believed that there had been a master list of best management practices and that a lot had been

crossed off in order to winnow the list down. David will look at this. Vern thinks he has a master list – electronically provided to everyone on paper.

**No. 3- Ecology Washington Nitrate Prioritization Project:** David reported that early information had been sent out to the group prior to this meeting. He noted that there are data limitations. A link had been provided and a request for comments. It had not yet been to peer review. They had tried to be neutral. David would appreciate the group's thoughts.

**No. 4 – Ecology CAFO General Permit Update – mid-June draft release for public comment:** (release June 15) David had spoken with them – there will be a 60 day comment period with public comment meetings held July 26 – 28. One will be a webinar. The meeting on the 28<sup>th</sup> will be held at the Department of Ecology in Union Gap at 6:00 PM. More information about the meetings will be on the Ecology website on June 15.

**No. 5- Other topics . . . Next steps:** David encouraged the group to proceed with nitrate solutions (education and technical assistance with financial motivations), not focusing on percentages without waiting for the nitrogen loading assessment to be finalized.

David pointed out that several members were a part of the EPO working group committee. Jim Davenport encouraged the group to answer the questions: “who do we need to educate” and “what do we want them to know” when preparing its list of solutions. He then advised the group to tender the information to the EPO to design a program as they were better equipped to ascertain who is best to help educate, education management programs and the costs involved.

Stu Turner indicated that there are ready-made educational programs in place through the Tri-Societies (which includes the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America) and about half to two-thirds are free. Stu had already checked and believed that they may grant the GWMA a license to use the programs. He will forward on a link so that the group might have more information.

There was a discussion about meeting twice a month. The group decided to email more frequently and meet once per month. Next meeting: Thursday, July 7, 5:00-7:00 PM, Department of Ecology, Union Gap, WA

### **Resources Requested**

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#### **Recommendations for GWAC**

#### **Deliverables/Products Status**

#### **Proposed Next Steps**

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- David will call Melanie Redding and the Department of Agriculture (if necessary) to determine if they had done a thorough review of data on pens and corrals.
- David will go through the status goals again now that he had received everyone's input.
- Vern will look for a master list of best management practices the group had been editing.
- Stu Turner was going to forward on a link about the Tri-Societies' ready-made educational programs.