Regulatory Framework Working Group

Charge from Groundwater Management Area Advisory Committee

[Insert Charge]

Working Group Members

Jean Mendoza, Chair (Friends of Toppenish Creek), Andres Cervantes (Department of Health), David Bowen (Department of Ecology), Chelsea Durfey (Turner and Co.), Dan DeGroot (Yakima Dairy Federation), David Newhouse (interested party), Ginny Prest (WSDA), Jason Sheehan (Yakima Dairy Federation), Jim Dyjak (Concerned Citizen of Yakama Reservation), Larry Fendell (interested party), Laurie Crowe (South Yakima Conservation District), Nick Peak (EPA), Patricia Newhouse (Lower Valley Community Representative), Steve George (Yakima County Farm Bureau), Stuart Crane (Yakama Nation), Sue Wedam (Lower Valley Community Representative), Vern Redifer (Yakima County Public Services), Jim Davenport (Yakima County Public Services)

Meetings/Calls Dates

Meeting: March 9, 2016, 5:00-7:30 PM

Call Number: 360 407-3780 PIN Code: 306589#

Participants

Present: Jean Mendoza (Chair), Jim Davenport, David Bowen, Larry Fendell, Ginny Prest, Dan DeGroot, Stuart Crane, Jason Sheehan, Steve George, Jim Dyjak, Sandy Braden and Bobbie Brady (Yakima County Public Services Support Staff) Guest Presenter: Brent Barnes, Assistant Director, Pesticide Management Division, WSDA. No one was present by phone.

*via phone

Key Discussion Points

Chair, Jean Mendoza, opened the meeting at 5:06 PM and explained that the first half of the meeting would be dedicated to the presentation on chemigation and fertigation and the second half to discussing a plan on how to analyze the data. Jean then introduced the teenagers from Granger who were filming the meeting and noted that hopefully it would be available for viewing on cable television. Next Jean took the time to introduce David Bowen the new Water Quality Section Manager from the Department of Ecology. David spoke briefly about his four week tenure at the Department noting that this was his second GWMA working group meeting as he had attended the Data Collection Working Group earlier that day. He also shared a bit about his background as a Kittitas County Commissioner (which included working through water issues), Auditor, and his 25 year participation in the family farm with his grandmother. He noted that his goal was to be helpful to the group and assistant in solving issues. He also explained it was his understanding that Charlie McKinney (his predecessor) had headed up the CAFO group. He was

not sure he should take over the leadership of this group since he was joining everything part way through but was willing to serve as the group desired. In addition, Jean asked Sandy Braden to introduce herself – she said she was a teacher currently tutoring in the private sector. She had been born and raised in the White Swann area where the groundwater level is high and was concerned about pollution of wells. She moved back to the County to retire and doesn't want to see things get worse courtesy of the mega dairies/CAFO's.

Part 1, Presentation by Brent Barnes, WSDA

Finally, Jean asked Ginny Prest to introduce her supervisor – Brent Barnes, who is the Assistant Director of the Pesticide Management Division of the WSDA Brent informed the group that he had been in the position for eight months. He was very thankful for the job as he was in the position to be part of a team doing great stuff. He had transitioned from the army this last year and had been a civil servant prior to his reenrollment in the military after 9/11.

He explained that he had been given a series of questions and intended to answer the first five that were provided as follows:

1. Which specific regulation are you addressing? Provide the citation where it may be found. Identify the responsible agency personnel. EPA delegates primary responsibility for enforcement to the states, the Federal Insecticide, Fungicide, Rodenticide Act is the governing regulation. WSDA authority for regulating chemigation and fertigation comes from: RCW 15.54.800 Fertilizers, Minerals and Limes (adoption of rules), RCW 15.58.040 Washington Pesticide Control Act (director's authority to make rules) and RCW 17.21.030 Pesticide Application Act (Director's authority). Washington Administrative Code – WAC 16-202-2001 Fertigation Rule – establishes performance standards for fertigation that are protective of existing and future uses of surface water and groundwater quality. WAC 16-202-1001 Chemigation Rule – establishes performance standards for fertigation that are protective of existing and future uses of surface water and groundwater quality. Secondary containment requirements. For Fertigation enforcement, the Registration & Licensing Program is responsible for inspections and investigations. For Chemigation enforcement, the Pesticide Compliance program is responsible.
2. What issue or problem is the regulation designed to solve? What activity does the regulation limit, regulate or control? How is that activity related to the potential for nitrate to be discharged to groundwater? Does the activity contribute to the increase or decline of groundwater contamination? The fertigation rule requires that systems must have the appropriate safety devices in-place and must be installed, maintained, and operated in accordance with the manufacturer's specification, established industry standards, and departmental rule. The fertigation rule requirement and the associated back flow prevention equipment was primarily promulgated to protect the water source whether it be surface or ground water. The intent of these provisions is to protect human health and safeguard the environment from misapplication and equipment malfunction. It is the applicator's responsibility to demonstrate that an operation will not result in foreseeable harm to humans, surface water or groundwater, desirable plants or animals, or to sensitive areas. The overarching mandate of the fertigation rule is signified by two

provisions: a chemigation or fertigation system cannot draw water from any water supply unless that source is protected from contamination and the operator is responsible for the proper operation of both the irrigation and the injection systems.

3. How does the regulation work, i.e., through licensing, registration, standard setting, recommendation of best management practices, reporting, technology, performance monitoring, planning, funding, other approach? The core purpose of the WSDA Chemigation and Fertigation Technical Assistance Program is to assist operators in protecting human health and in safeguarding the environment from the potential hazards of applying pesticides and fertilizers by means of irrigation water. Although the target audience is primarily those who practice chemigation that design or install irrigation systems or supply equipment, agrochemical companies that provide agrochemical products, and equipment manufacturers of irrigation and backflow safety equipment. Programmatic and consulting relationships are longstanding with USEPA, USDA-NRCS, Conservation Districts, Department of Ecology, Department of Health – Drinking Water Division, WSU, commodity organizations, and Departments of Agriculture in many states. Enhancing awareness and developing core skills of both growers and service industries are being realized by the following activities. When corrective action is indicated, a conformational inspection is conducted. While voluntary compliance is the desired strategy, regulatory action is also an option.
4. What metrics does the agency use to measure whether the regulation is effective in reducing nitrate concentrations in groundwater? What means are used to apply those metrics, e.g., inspection programs, monitoring reports, field samples? What data is available reflecting the application of those metrics? None for groundwater, sampling is done as part of an investigation to determine if drift occurred (pesticides), if fertilizers escaped secondary containment or entered source water systems.
5. What does the agency do to inform the regulated community or the public of the existence of the regulation? What is the agency doing to make it easier for the public to contact the agency (ensure that it is accessible) in order to learn what to do about groundwater contamination? How much has education of the regulated community improved regulatory effectiveness? How is this measured? Statutes and rules are easily accessible at http://aps.leg.wa.gov.
    - System inspections are concentrated in Grant, Adams, Lincoln, Franklin, Benton, Walla Walla, Grays Harbor, and Pacific Counties. Inspections have also been conducted in Skagit, Whatcom, and Yakima Counties.
    - Over the past 15 years, system compliance among mid to large-scale growers has increased from less than 15% to about 65%. As systems are voluntarily retrofitted, compliance will increase.
    - In-field consultations are conservatively estimated to have exceeded 640 contacts.
    - AG-ASSIST-WSDA, a chemigation and fertigation webpage, has approximately 285 subscribers located throughout the western U.S.
    - Educational activities that are specific to chemigation and fertigation include the following (conservative figures).

        13 articles for trade publications and WSU Newsletters

7 proceedings or symposia
9 worksheets or checklists
2 joint WSU-WSDA publications
9 fact sheets or bulletins
155 presentations, demonstrations, or workshops with an emphasis on chemigation and fertigation. Many other presentations contained an aspect of this topic. Educational activities have been focused in the Columbia River Basin, the Yakima and Skagit River Water Basins, and Pacific and Grays Harbor Counties.
WA State Potato Commission and WSDA designed and outfitted a 21-foot demonstration trailer that has been staffed during at least eight trade shows and used in conjunction with several on-site training programs.

The group asked many questions as the presentation progressed. They are summarized as follows:

How does the regulation work – is this voluntary compliance? The WSDA does not permit the systems, regulations just require inspections. They do not permit the site or the equipment. The equipment specifications are in the WAC. Oftentimes, WSDA is called out to help with the design. If they inspect a system and it fails, they can pull licenses or impose fees (this is the teeth of the statutes). About 1,100 systems have been inspected since 2000. About 140 more systems are scheduled to be inspected in the next two to three years.

If you are not in compliance what is the penalty? The maximum penalty by statute that can be imposed is $7,500 for each infraction. There is a matrix that has been developed and is used to determine the penalty and the severity of each infraction is taken into consideration. If the fine isn't paid a NOI is issued. A hearing can be chosen and the Director signs off on the order. If the fine is not paid the Agency has a procedure to send it to collections.

Is the fine imposed to the equipment owner or the person operating the equipment? The owner. The applicator must be licensed in order to purchase the product. To obtain a license a test pertaining to application rules is required.

Is there a license for fertigation? Brent was not aware of one specifically, but he will check and get back to the group on this issue which he did and no license is required.

What was the cost of the education trade show trailer designed by the Washington State Potato Commission? Brent did not have this information as the cost was funded by the Potato Commission. The member thought this might be something the EPO Working Group might be interested to learn more about.

What characteristics of regulations that apply to fertigation/chemigation might be useful, relevant and/or helpful in the reduction of nitrogen? If you look at safeguards these rules were well written; there are no restrictions concerning application rates of fertilizers. Self-regulation works well because fertilizer is expensive and over application would not benefit a producer economically.

Could licensure requirements work for fertilizer? No – there are no application limits just judgment based on economics and good stewardship of the land.

There is more knowledge now regarding fertilizer application and the price of fertilizer is up. Both of these factors drive better fertilizer usage. This unfortunately does not help with legacy issues and fixing the problems inherent to this.

What about compliance issues? From 2013-2016 (three years) in chemigation there have been three investigations, 80 inspections, 56 notices of correction (most of these were in 2014 and pertained to the cranberry bogs). In addition, most of the 56 notices of correction had to do with construction or maintenance. Sometimes these notices required that WSDA return and inspect the corrections. There are still two open cases. There is one open now and it is a marijuana grow related case. There are two inspectors that handle this in the State. Most of this is driven by drive bys or complaints. There were no secondary containment investigations.

Can you estimate the number of people in Yakima County that apply synthetic fertilizers and do you know if it is applied at appropriate rates? No, the Department does not have this data and Brent was not aware of anyone keeping these records. He was aware some are doing soil samples at the same geographic location which provides them with historical data so they might better determine appropriate application rates. However, this information is not shared with any governmental entities. It is merely good for business and helps determine moisture levels.

A member commented that people are following a new standard. Testing is not cheap, but application isn't either. GPS technology now allows for zonal spray, fields to be mapped and variable spray rates so that applications at corners are applied at the same rate. In addition, member Steve George commented that he recently heard a presentation by Laurie Crowe from the South Yakima Conservation District in Sunnyside. The presentation was funded by the Legislature to help with application education. In it she described a new mass balance sheet which allows you to take soil samples, plug in the crop requirements, and factors in organic material in the soil. When you come to the end of the balance sheet you can see what you need and then apply it. There is a lot of new information coming out on this. Another member suggested that Laurie Crowe make this presentation to the Irrigated Ag group.

A member asked if Brent was saying that people were not over-applying. Brent clarified and said that he was not saying this, but that he believed more people were testing and mapping lands from season to season. It was not his belief that they were over-applying on purpose based on the economics – any over-application may be inadvertent or a result of miscalculation.

Is there data on fertilizer usage? The only data kept by the State is for commercial sales as the Department charges license fees based on tonnages. However, it would be difficult if not impossible to translate this statewide data to Yakima County alone since this is state-wide and not broken down to counties or areas. Therefore, tonnage records cannot be used to verify amounts of any fertilizer sold in the GWMA.

Do you test fertilizers? Yes – the components listed on the label must be approved. They test that the components on the labels are the guaranteed minimum since there is a greater chance

that the components are under the rates stated on the label than they are over. If they do not meet the guaranteed minimum number the sale can be stopped.

Do you test compost? No, compost requirements are handled through Solid Waste at the Department of Ecology. Another member noted that someone had already made a presentation on this topic and that it is not a guaranteed analysis as it is not a registered product.

Do you test for pesticides in compost? Compost on farms is exempted. On dairies there are requirements if a farm is using the compost or selling it – then the compost will be tested for nutrients. It was noted that all dairies are required to register under the Dairy Nutrient Management Act.

How do the various agencies work together? There are MOU's in place (Memorandum of Understanding) between the WSDA and other agencies, i.e., the Department of Health, Labor and Industry, and the Department of Ecology. The MOU's define where the authorities lie and when the agencies hand-off to each other in order to determine jurisdiction.

There are four programs in Brent Barnes division: Dairy Nutrient Group, Registration/Licensing Group, Licensure – testing, Pesticide Compliance, Technical Services and Education which includes Farm Worker Education, Pest/Waste Disposal and now expanding to Farm Management Owners.

Chair Jean Mendoza brought up WAC 246-203-130 Keeping of Animals. Ginny Prest noted that David DeLong, Policy Person, of the Washington State Board of Health is looking at the WAC currently in order to update it. It wasn't possible to do this before because there had been a moratorium in place since 2009 on rule making until 2013. The Board of Health is now trying to finish up this rule. He may be interested in talking to the group.

Jean then asked the group to go around the room to see if anyone else had any remaining questions and/or comment as follows:

There was a discussion about zoning issues – people living next to dairies in what is now agriculturally zoned areas. Someone asked why not change the zoning laws. Jim Davenport reminded the group that these were land use problems and the GWMA was charged to work through groundwater contamination problems and issues.

One member voiced a concern and asked for clarification from Brent on a question – do you believe people are over-applying now? Brent responded and said no because economics don't allow for it. He went on to say that in the past there may have been over-application because people/agencies didn't know then what they know now. A lot has changed as advances came quickly in the past 10 to 15 years. The member further pointed out that while there may be more being grown now the crops that are grown require less use of nitrogen while the crops grown in the past were smaller in quantity they required a higher use of nitrogen. He went on to say that now that's not the case as much. Discussion and disagreement ensued regarding the variety of crops, the amount of acreage in production and the quantitative use of nitrogen.

Another member summarized what he heard Brent report: There is no formal inspection process. Any inspections are more complaint driven, as a result of a drive-by, or because contact has been made for technical assistance. No inspections are done on the compliance side and overall there aren't that many complaints. There is a formalized process for actually performing the inspection once the Department is on site but there is no formalized inspection process. There is no license category on fertigation.

What drive-by complaints do you get? Smell when the wind comes up or drive by – see leaky system.

Part 2, How Do We Analyze the Data We Have Gathered?
Chair Jean Mendoza passed out several items to the group – a draft timeline for Goals and Objectives and a Regulatory Framework Checklist for Goals and Objectives per GWMA Work Plan. On the reverse side, Jean had typed in blue her analysis of where the group was at. She asked the group to comment.

Section 3.1 Problem Definition – Jean felt the group was more or less complete and could add more information as needed. For the most part the group agreed.

Section 3.2 Evaluate Existing Regulatory Framework – Jean felt that the group needed to begin this task and potentially complete it over the next six months. Another member disagreed and felt that 3.1 and 3.2 had happened at the same time. They felt it has been accomplished when people addressed the group on each topic and they answered the question is the system working well. It was pointed out Jim Davenport had already provided a chart of each source and the regulations in existence applicable to each. In addition, the group had been given Vern's modification of Jim's larger charts, which did not show all of the gaps, but did provide the group with a written copy of the sources and the regulations. Ginny noted that she had a few additional items to add to Vern's draft.

The group discussed how to evaluate the different provisions and what standard would be applied as to how each agency was enforcing the standard. The goal was to answer the question: "Is the problem the regulation was designed to deal with being addressed"? The concern was that the answers to this question would contain lots of opinions. One member felt it was good to look at the gaps in the regulations and another felt it was more positive to ignore gaps which seemed to increase regulations and instead focus on ways to solve problems without regulations. It was suggested too that the speakers provide what they think would be a good regulation to have regarding the issue they discussed. Then if a hole is found perhaps the group can provide a fix. Other comments included a desire to be more positive than negative and that gaps are harder – subjective to see. It was suggested that the other sources could be compared to pesticide – the enforcement is good, it is reactionary and they are trying to do more education in an attempt to be on the learning edge rather than the "kick butt" edge with more regulations.

Another member suggested that the next step would be for the Regulatory Working Group to analyze and organize the information they had gathered from the presenters. At that point the information could be delivered to the other applicable working groups to process. That way Regulatory wouldn't be making decisions for Irrigated Ag (for instance) since they are the ones

most familiar with the issues pertaining to the people they represent. The decisions could be made within the context of that working group and any alternate solutions could be proposed to the GWAC by the people who have intimate knowledge of the field. This perhaps could be accommodated by joint working group meetings – Regulatory could prepare presentations.

Another pointed out that this suggestion would help achieve GWAC wide goals and not just this group's goal since Section 3.5 on is broader than just this working group. It was also noted that it would be hard to discuss regulations the group didn't have first-hand experience with.

A member questioned if the groups are ready and if this group should prepare presentations in advance. Jean Mendoza stated that she was on the EPO, Irrigated Ag and most of the group present was on the Livestock committee. In addition, Dan DeGroot who was present is on RCIM.

Various members spoke up and said it made sense to let the applicable working groups include this in what they are doing – Regulatory should give them the information and let them make the decisions. Chair Jean Mendoza spoke up and pointed out the group needed a plan to interact with the other working groups. Jim Davenport suggested that they convene a Working Group Chairs meeting. He also thought it was obvious as to how to split up the spreadsheet by source as follows:

RCIM: Onsite sewage systems, lawns, industrial facilities, atmospheric deposition, private wells, underground injection control, municipal facilities, biosolids.

Livestock: Compost, dairy, dairy lagoons, dairy settling ponds, dairy pens and corrals, livestock/CAFO

Irrigated Ag: Fertilizer agriculture, manure land application, irrigation management

Further, Jim Davenport agreed to talk with Vern Redifer about this issue when he returns.

Jean wanted to discuss CAFO/Livestock regulations next month at the Regulatory meeting. One member thought the group should organize the information first before making presentations to any of the groups.

There was also a discussion about RCRA and its relevance, applicability, precedental value and enforceability to nutrients in the valley, There was some discussion about having Lucy Edmonton from the EPA talk to the group about it or perhaps the State's Assistant Attorney General as to how it is being dealt with within this State for a legal determination of her agency's approach to dealing with it.

The meeting was adjourned by Jean Mendoza at 7:20 PM

Resources Requested

Recommendations for GWAC

Deliverables/Products Status

Proposed Next Steps