From: Jean Mendoza [mailto:jeanrmendoza@icloud.com]
Sent: Thursday, April 5, 2018 8:35 PM
To: agforensic@aol.com; durfeycc@gmail.com; nstarmgt@msn.com; kakaleena1@yahoo.com; plnewhouse@hotmail.com; cowdrs@embarqmail.com; dsimpson@pocketinet.com; jean.mendoza@wildblue.net; arkady1977@me.com; janwhitefoot@gmail.com; Dyjak@nwinfo.net; sageconsulting.sg@gmail.com; falyall@yahoo.com; Jason.sheehan@ymail.com; dan@skyridgefarms.com; cowinr@svid.org; lc@sycd.us; jnuhouse@gmail.com; johnv@portofsunnyside.com; rand.elliott@co.yakima.wa.us; vern.redifer@co.yakima.wa.us; Ibach, Ryan (DOHi) <ryan.ibach@co.yakima.wa.us>; peters_troy@wsu.edu; troy.peters@wsu.edu; Edmondson.Lucy@epa.gov; peak.nicholas@epa.gov; esanchey@yakama.com; ringt@yakama.com; cranes@yakama.com; Bahr, Gary (AGR) <GBahr@agr.wa.gov>; Cervantes, Andres (DOH) <Andres.Cervantes@DOH.WA.GOV>; Beale, Perry (AGR) <PBeale@agr.wa.gov>; Bowen, David (ECY) <dabo461@ECY.WA.GOV>; Park, Sage (ECY) <SUEB461@ECY.WA.GOV>; guerrasDELI@gmail.com; black_j@heritage.edu; jhdavenportllc@gmail.com; lgfendell@gmail.com; mbachman@usgs.gov; Redding, Melanie (ECY) <mkim461@ECY.WA.GOV>; Howe, Sheryl (DOH) <sheryl.howe@doh.wa.gov>; myers.holly@county.yakima.wa.us; Alexiades_A@heritage.edu; sbraden09@gmail.com
Subject: GWMA

Dear GWAC,

It takes a big man to admit that he is wrong, especially to a woman. Tonight five men told me that a sufficient GWMA problem statement is, “nitrate levels in the groundwater are too high.”

Here is what the law requires. See Section (2) below:

WAC 173-100-100

Groundwater management program content.

The program for each groundwater management area will be tailored to the specific conditions of the area. The following guidelines on program content are intended to serve as a general framework for the program, to be adapted to the particular needs of each area. Each program shall include, as appropriate, the following:

(1) An area characterization section comprised of:

(a) A delineation of the groundwater area, subarea or depth zone boundaries and the rationale for those boundaries;

(b) A map showing the jurisdictional boundaries of all state, local, tribal, and federal governments within the groundwater management area;

(c) Land and water use management authorities, policies, goals and responsibilities of state, local, tribal, and federal governments that may affect the area's groundwater quality and quantity;

(d) A general description of the locale, including a brief description of the topography, geology, climate, population, land use, water use and water resources;

(e) A description of the area's hydrogeology, including the delineation of aquifers, aquitards, hydrogeologic cross-sections, porosity and horizontal and vertical permeability estimates, direction and quantity of groundwater flow, water-table contour and potentiometric maps by aquifer, locations of wells, perennial streams and springs, the locations of aquifer recharge and discharge areas, and the distribution and quantity of natural and man-induced aquifer recharge and discharge;

(f) Characterization of the historical and existing groundwater quality;

(g) Estimates of the historical and current rates of groundwater use and purposes of such use within the area;

(h) Projections of groundwater supply needs and rates of withdrawal based upon alternative population and land use projections;

(i) References including sources of data, methods and accuracy of measurements, quality control used in data collection and measurement programs, and documentation for and construction details of any computer models used.

(2) A problem definition section that discusses land and water use activities potentially affecting the groundwater quality or quantity of the area. These activities may include but are not limited to:

- Commercial, municipal, and industrial discharges
- Underground or surface storage of harmful materials in containers susceptible to leakage
- Accidental spills
- Waste disposal, including liquid, solid, and hazardous waste
- Stormwater disposal
- Mining activities
- Application and storage of roadway deicing chemicals
- Agricultural activities
- Artificial recharge of the aquifer by injection wells, seepage ponds, land spreading, or irrigation
- Aquifer over-utilization causing seawater intrusion, other contamination, water table declines or depletion of surface waters
- Improperly constructed or abandoned wells
- Confined animal feeding activities

The discussion should define the extent of the groundwater problems caused or potentially caused by each activity, including effects which may extend across groundwater management area boundaries, supported by as much documentation as possible. The section should analyze historical trends in water quality in terms of their likely causes, document declining water table levels and other water use conflicts, establish the relationship between water withdrawal distribution and rates and water level changes within each aquifer or zone, and predict the likelihood of future problems and conflicts if no action is taken. The discussion should also identify land and water use management policies that affect groundwater quality and quantity in the area. Areas where insufficient data exists to define the nature and extent of existing or potential groundwater problems shall be documented.

(3) A section identifying water quantity and quality goals and objectives for the area which (a) recognize existing and future uses of the aquifer, (b) are in accordance with water quality standards of the department, the department of social and health services, and the federal environmental protection agency, and (c) recognize annual variations in aquifer recharge and other significant hydrogeologic factors;

(4) An alternatives section outlining various land and water use management strategies for reaching the program's goals and objectives that address each of the groundwater problems discussed in the problem definition section. If necessary, alternative data collection and analysis programs shall be defined to enable better characterization of the groundwater and potential quality and quantity problems. Each of the alternative strategies shall be evaluated in terms of feasibility, effectiveness, cost, time and difficulty to implement, and degree of consistency with local comprehensive plans and water management programs such as the coordinated water system plan, the water supply reservation program, and others. The alternative management strategies shall address water conservation, conflicts with existing water rights and minimum instream flow requirements, programs to resolve such conflicts, and long-term policies and construction practices necessary to protect existing water rights and subsequent facilities installed in accordance with the groundwater management area program and/or other water right procedures.

(5) A recommendations section containing those management strategies chosen from the alternatives section that are recommended for implementation. The rationale for choosing these strategies as opposed to the other alternatives identified shall be given;

(6) An implementation section comprised of:

(a) A detailed work plan for implementing each aspect of the groundwater management strategies as presented in the recommendations section. For each recommended management action, the parties responsible for initiating the action and a schedule for implementation shall be identified. Where possible, the implementation plan should include specifically worded statements such as model ordinances, recommended governmental policy statements, interagency agreements, proposed legislative changes, and proposed amendments to local comprehensive plans, coordinated water system plans, basin management programs, and others as appropriate;

(b) A monitoring system for evaluating the effectiveness of the program;

(c) A process for the periodic review and revision of the groundwater management program.

[Statutory Authority: RCW 90.44.400. WSR 86-02-004 (Order DE 85-24), § 173-100-100, filed 12/20/85.]

Thanks for taking this seriously. I respectfully ask for apologies.

Jean Mendoza

On Apr 06, 2018, at 08:56 AM, "Bowen, David (ECY)" <dabo461@ECY.WA.GOV> wrote:

Good morning Jean,

As a latecomer to the process I have had to make some assumptions. The following is my brief perspective based on what I have read, conversations, participation in the GWAC, and facilitating the Livestock/CAFO Work Group since March 2016.

I did read the WAC earlier this week and noted much of what you highlighted. The following is my perception of some of the activities the group has been working on trying to fulfill these elements in the WAC.

(2) A problem definition section that discusses land and water use activities potentially affecting the groundwater quality or quantity of the area. These activities may include but are not limited to: What I tried to say last night, obviously not very well so for that I do apologize, is that typically a problem statement is a short paragraph and the body of the document (in this WAC a portion of the document is described as the problem definition section) provides the discussion of activities potentially affecting the groundwater quality. Over the years Work Groups and GWAC meetings have been the forum for research and discussion of these issues, the Work Group findings were forwarded to Yakima County last Spring and were the basis of the current draft chapters out for review and the alternatives we have been discussing at GWAC meetings since late summer 2017. Additional chapters yet to come.

When I came on in March 2016 my impression was that the Nitrogen Availability Assessment, with its data limitations disclosed and final edits to be finalized, was envisioned to address the relevant portions of the following section: The discussion should define the extent of the groundwater problems caused or potentially caused by each activity, including effects which may extend across groundwater management area boundaries, supported by as much documentation as possible.

I think the GIS project, DSS, and ambient well monitoring projects are attempts to get at this section: The discussion should also identify land and water use management policies that affect groundwater quality and quantity in the area. Areas where insufficient data exists to define the nature and extent of existing or potential groundwater problems shall be documented.

The GWAC is currently working on finalizing this: (4) An alternatives section outlining various land and water use management strategies for reaching the program's goals and objectives that address each of the groundwater problems discussed in the problem definition section.

One person's understanding from my short time participating – I look forward to further discussion.

I'm glad you wrote because there is another topic I didn't feel I communicated clearly on and that was the discussion of the pie chart and acreage by land use table. I was asking to clarify what the pie chart actually represented. Given the data we have and acknowledging its limitations with final edits yet to come, my interpretation was the pie chart represented the potential nitrogen available at the surface. **Not** the sources of nitrogen in the groundwater. Its usefulness is in then applying the potential risk of that nitrate reaching the groundwater, the chart with land use by acreage helps to define that risk – I attached some notes I made to myself including the pie chart and graph I was referring to (I realize edits may change the attachment, it is from one point in time last Spring)

I appreciate everyone's participation and the opportunity to communicate regarding this important topic.

Sincerely,

David Bowen

Water Quality Section Manager

Department of Ecology

Central Region Office

Office: 509 457-7107

On Sat, Apr 28, 2018 at 6:55 AM, Jean Mendoza <jeanrmendoza@icloud.com> wrote:

Good Morning Jim & Chris,

I plan to attend the May 3 meeting and I have reviewed the agenda. In order to have a productive discussion we need more information. Can you help us with a few issues?

1. Regarding *Comments on Program Draft 2:* We have the second draft but we have not seen the comments that people submitted and we have not seen changes to the draft. Can you send out a Draft 3 and/or the comments that were submitted?
2. Regarding *Analysis of Alternatives/Recommendations:* At the March meeting you said that you would be asking the agencies and others for cost estimates for the various alternatives. Can you send those cost estimates ahead of time?
3. Regarding *Lead Entity: Whether? Who? What?* I personally do not know what the law says regarding the formation of a follow-up project. Can you tell us how the statutes address follow-up work? Has the GWMA leadership talked with anyone from the agencies or the legislature about potential programs? If so, what were the results from these discussions? Should we bring our own ideas for follow-up? What criteria can/should we use to guide development of future work?
4. Over the past few months I have sent two requests for addition of material to the agenda.
    - I sent an additional alternative that would give the WSDA DNMP authority to enforce nutrient management plans
    - I sent an initial analysis of the USGS domestic wells testing that showed much lower nitrate levels in wells within two miles of the Yakima River. I hope to send more analysis by Monday.

Will we be talking about these two topics?

5. Is anyone working on presentations of the GWMA plan to the public?
6. When will we address *Implementation* as required by WAC 173-100-100(6)?

Thanks so much. I look forward to hearing from you.

Jean Mendoza

From: James Davenport <jhdavenportllc@gmail.com>
Date: April 30, 2018 11:48:18 AM
To: Jean Mendoza <jeanrmendoza@icloud.com>,Vern Redifer <vern.redifer@co.yakima.wa.us>,Rand Elliott <rand.elliott@co.yakima.wa.us>,"Bowen, David (ECY)" <dabo461@ecy.wa.gov>
Subject: Re: GWMA_GWAC Agenda: Thurs., May 3 (Please RSVP)

Jean,

Please see my responses to your comments below:

1. Regarding *Comments on Program Draft 2:* We have the second draft but we have not seen the comments that people submitted and we have not seen changes to the draft. Can you send out a Draft 3 and/or the comments that were submitted? We have received comments from several members. I have made some editorial changes responding to those comments. My plan is to go to Draft 3 after I have received the data analysis from Vern, Ginny Stern, Matt Bachmann, WSDA (on final draft Nitrogen Availability Assessment), and the feedback on the material to be presented next week, and have written all that up into the draftprogram.
2. Regarding *Analysis of Alternatives/Recommendations:* At the March meeting you said that you would be asking the agencies and others for cost estimates for the various alternatives. Can you send those cost estimates ahead of time? I have collected cost estimates from several sources and will have them stated in the materials I am preparing for the meeting next week. My plan is to distribute my work and ask for feedback in the week following, then schedule the matter for discussion at the following meeting (May 17).
3. Regarding *Lead Entity: Whether? Who? What?* I personally do not know what the law says regarding the formation of a follow-up project. Can you tell us how the statutes address follow-up work? Has the GWMA leadership talked with anyone from the agencies or the legislature about potential programs? If so, what were the results from these discussions? Should we bring our own ideas for follow-up? What criteria can/should we use to guide development of future work? As I began to collect cost estimates for various suggested alternatives, I often heard that the estimate depends upon who the lead agency is going to be. Because the group has not discussed this, at least openly, it seemed timely to put this matter on the table for discussion. Vern and Rand agree. Your questions are fair to be asked at the meeting next week.

- 4.Over the past few months I have sent two requests for addition of material to the agenda.
    - I sent an additional alternative that would give the WSDA DNMP authority to enforce nutrient management plans
    - I sent an initial analysis of the USGS domestic wells testing that showed much lower nitrate levels in wells within two miles of the Yakima River. I hope to send more analysis by Monday.

Will we be talking about these two topics?

WSDA DNMP enforcement authority was discussed at length in the Regulatory Framework Work Group which you chaired. I do not think it will be raised again at the full GWAC, except as a suggested recommendation that that authority be altered.

I have just now received your work on evaluating the USGS domestic well and drain data. Thanks for your effort. My suggestion is that this should be forwarded to Matt Bachman for comment, and be presented at a Data Work Group session, then be presented to the GWAC. I will forward that work to Vern Redifer, Rand Elliott and David Bowen.

Is anyone working on presentations of the GWMA plan to the public? I have not heard of any such work at this time.

1. When will we address *Implementation* as required by WAC 173-100-100(6)? Not at least until we know the recommendations which are mentioned in that section. You do raise a good point, though, that we need to put that on our to-do list.

I hope this is helpful. I have copied a few others in this response so that we're all on the same wave length.

Jim