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Division 512 Rules Advisory Committee

Meeting 5 (January 24, 2024, 1-5 PM)

This document is a summary of Division 512 Rules Advisory Committee (RAC) hybrid meeting number five held at the Harney County Community Center on Jan. 24, 2024, from 1-5 PM. For more information, see the Meeting Agenda, Meeting Presentation, Draft Rules, and other Meeting Materials, available on our [rulemaking website](#).

This summary is intended to capture key questions and discussion items however it is not an official transcript or includes “minutes” of the meeting. [The recording of the meeting is available online.](#)

This summary captures key take-aways as identified by the third-party facilitation support and should not be interpreted as the confirmed thoughts and opinions of the OWRD, the RAC, or members of the public.

RAC Members in attendance:

- Barbara Howard
- Ben McCanna
- Brandon Haslick
- Breanna O'Connor
- Brenda Smith
- Jeff Mackay
- Julie Weikel
- Karen Moon
- Ken Bentz
- Kristen Shelman
- Lisa Brown
- Lorissa Singhose
- Louie Molt
- Mark Owens
- Roger Sheley
- Travis Singhose
- Zach Freed
- John Rowell

Oregon Water Resources Department (OWRD) staff in attendance were:

- Ivan Gall
- Tim Seymour
- Darrick Boschman
- Kelly Meinz
- Laura Hart
- Danielle Gonzalez

Bryant Kuechle with The Langdon Group contracted with the National Policy Consensus Center at Portland State University to provide third-party, neutral facilitation services.

Welcome and Introductions

Bryant Kuechle introduced himself, shared ground rules, reviewed the agenda and facilitated self-introductions

but OWRD staff, RAC members and the public. The following ground rules were shared:

1. RAC members please sit at the horseshoe. All non-RAC-member attendees please sit in the seating area, except during the public comment period.
2. All attendees will show mutual respect for each other, OWRD staff, and RAC members. This includes refraining from using cell phones or talking while the meeting is in session.
3. For those wishing to provide public comment, 30-minutes is set-aside at the conclusion of the meeting and time will be extended if necessary. This is the public's opportunity to share their input. The RAC will not participate in this session.
4. Generally, commentators have about 2-5 minutes each and are asked to finish in a reasonable amount of time to allow for the maximum number of individuals to express their viewpoints.
5. The public will have the opportunity to provide public comment either virtually or in-person.
6. Commenters must show mutual respect for everyone participating in the meeting. Do not use unprofessional conduct or inappropriate language (yelling, profanity, etc.).

What Does No Further Decline Mean?

Tim Seymour led a presentation and discussion of the definition of “no further decline” and the benefits of managing to the water level trend. The follow captures some of the key themes and questions that emerged from that discussion:

- Request to have a collaborative two-way conversation moving forward, less being presented at by the Department
- The concern was raised about juniper invasion on public lands. That it is consuming water and lowering the overall water table, impacting neighboring agriculture land. It was requested that land management agencies responsible for juniper encroachment are included in the RAC, and all factors of groundwater level decline, beyond irrigation, are addressed in the RAC. *Additional information on this topic was provided following the meeting in the form of scientific articles:*
 - [Ecosystem Water Availability in Juniper versus Sagebrush Snow-Dominated Rangelands](#)
 - [Soil water dynamics and water use in a western juniper \(*Juniperus occidentalis*\) woodland](#)
 - [Piñon–Juniper Reduction Increases Soil Water Availability of the Resource Growth Pool](#)
 - Appreciate for the “north star” of no decline but this does not mean no pumping
 - The priority should center on fiscal impacts. We need to understand this in the context of the three sub-basins and the 15 subareas and consider what are PTW's from the basin approach?
 - Fiscal impact will play into the timeline and help create milestones. Help us understand opportunities so we can prioritize basins.
 - Recognition that Weaver Springs is an anomaly and must be broken out into a separate piece (potentially with Dog Mountain) – Community is on board with this, but not there yet with the 15 subarea approach.
 - The Rule 10 law is decades old: Share the language of that law so the community can wrap their head around it.
 - The 15 subareas focus from a problem out. There is support for this approach. Subbasins take you to artificial areas that are not site specific.
 - Water rights were not purchased illegally. Consider prior appropriation.
 - The 15 subareas circumvent the original water law that people invested in. People put infrastructure in under the premise of the water law.
 - Need a model to show SUB BASIN impacts – Model isn't ready for use per department
 - Need 40+ years of data to make sense, or are we only looking at a snapshot in time (managing based on 5 years)?

- Third party data is accepted and flagged as such
- Areas of Oregon that aren't dealing with this have an economic advantage and puts Harney at an economic disadvantage. Need to moderate the impacts to Harney. We can't be competitive with other regions if everyone else keeps irrigating at their existing rate.

Regulation Sidebars

Kelly Mainz led a presentation of the regulation sidebars, within the context of the “management bucket” and the “voluntary bucket.”

Public Comment Session #1

Bryant Kuechle requested a show of hands (in-person and online) by members of the public interested in providing public comment in session #1. The following provided verbal comment. [Comments begin at 1:57 on the meeting recording.](#)

- Holly Mondo, Placed Based Planning Water Collaborative
- Fred Flippans, Harney Electric CoOp
- Ken Bierly (written comment also submitted, included at the end of this document)
- Christopher Hall, Water League

Subarea Conversations

Ivan Gall led a presentation and discussion of the sub areas conversations, presenting and discussing the pros and cons of the 15 subarea and 3 sub-basin approaches. The follow captures some of the key themes and questions that emerged from that discussion:

- There was a request to better understand the 3-sub basin approach: What would be the PTW for the three basins? Will reductions be greater than the 15 subarea approach? How do these compare to Weaver Springs?
- The 3 subbasin approach is easier to understand for the community.
- The 15 subareas would circumvent the community's understanding of the water.
- It is a non-starter if you take basin down to the lowest level, subarea PTW in that basin, it needs to be an average. If you use less water the low spot will fill in. Taking it to the lower denominator is the simple answer.
- Need a target for lower priority sub area users to achieve with voluntary agreements
- OWRD could look at moving pumping away from cones of depression to see what the impact is to the basin.
- OWRD offered discussion regarding a hybrid approach that would provide for voluntary agreements within the 3 subbasin framework during all of 2024 and likely all of 2025 as the department gets ramped up with Rule 10. At the end of 2025, the Contested Case process would begin in the 15 subareas framework, and/or as staff has capacity to begin the process.
- Sidebars of voluntary agreements need to be defined
- Fold the Water Collaborative in with OWRD during the monitoring process to give the community more ownership.

Permissible Total Withdrawal

Darrick Boschmann led a presentation and discussion about Permissible Total Withdrawal (PTW). Specifically, what it is, how it is determined, and the values for each subarea. The follow captures some of the key themes and questions that emerged from that discussion:

- Request to calculate the volume of water that would be added to the basin from regulating permit conditions.

- There needs to be a more rigorous review of the 2018 PTW for voluntary agreements to be successful.
- There were questions on the assumptions made with the PTW. RAC members recommended starting curtailment as conservatively as possible.
- Without water in Harney Basin, there is no economy.

Public Comment Session #2

Bryant Kuechle requested a show of hands (in-person and online) by members of the public interested in providing public comment in session #2. The following provided verbal comment. [Comments begin at 3:56 on the meeting recording.](#)

- Jerry Temple
- Nathan Alington
- Fred Flippans, Harney Electric CoOp
- Chris Hall provided the following comment via Zoom chat: *The idea of convening a new rules advisory committee to revise the corrective control orders that were insufficient at the outset is to inject a 5 to 10-year obstruction in the process of addressing the problems of over-pumping that's damaging the aquifers. To say that a contested case hearing cannot include all subareas at once and set triggers for Permissible Total Withdrawals for each at the outset, to be regulated at a future point ministerially, is unacceptable. The law does not prevent using substantial evidence from the future to trigger the imposition of corrective control orders in various sub-areas when the Permissive Total Withdrawals are agreed upon and identified in the present moment when the CGWA process begins. This issue will not go away until it is resolved.*

***NEXT STEP:** Bryant Kuechle closed out the meeting. To better understand their questions and concerns and bring their issues to the conversation, RAC members are encouraged to contact Bryant at: 208-739-3048 or bk@langdongroupinc.com.*

Written Public Comment

Ken Bierly - Salem, Oregon

Introduction

I have been working with the Harney Basin community for the last 8 years in the development of an Integrated Water Resource Plan. The Harney Basin Collaborative adopted a groundwater plan in 2023. The plan was reviewed by the interagency review team and modified to address all comments received. The community expected the plan would help in the development and use of tools to address the over allocation of groundwater in the basin.

The plan and this rulemaking should recognize the significance of irrigated agriculture to the Harney Basin Community. With the loss of the Hines Mill in 1980, irrigated agriculture has been an important economic driver for the community. While it is recognized that the overallocation of groundwater water rights by the Department needs to be addressed, there needs to be consideration of how the remedy proposed will affect the lives and livelihoods of water right holders. The consideration of both location and time for remedies are of concern to the irrigator community.

My comments about the specific proposals to be discussed at the January 24, 2024 RAC meeting involve three major areas; 1) technical and computational issues around the calculation of Permissible Total Withdrawal (PTW), 2) policy and implementation questions and implications with the Department proposal, and 3) thoughts on an alternative approach.

Technical and Computational Issues

Issues with PTW Computation

The Department has estimated PTW to a rather precise level (1 acre-foot/year) which I believe is false precision. The estimate of ET used for estimating pumpage is “accurate within 10 to 20 percent of actual ET” which means the estimate for groundwater use is likely to be at least within that range.

The precise calculation of PTW is a result of numerous assumptions and averaging which reduces the likelihood of accuracy. A more reasonable display of PTW would be as the range between the lowest and highest quartile rather than the mean of median. It would better reflect the level of difference and uncertainty around any measurement rather than either a precise number as has been calculated for the lower priority areas or the mean/median as used for the high priority areas. The rounding of high priority PTW to the nearest 100 ac-ft is a compromise that recognizes the level of uncertainty about the estimate yet does not fully reflect the range of values involved.

Additionally, while the Department can calculate PTW or other values with precision, the management of groundwater by producers is typically by field or units of some 300-375 ac-ft. or some percentage of that. Changing irrigation technology is done at a field scale which involves at least 50 ac-ft increments.

This concern is not a criticism of the methodology, simply a recognition that it is important to recognize that what we are working with are estimates and try to provide a reasonable representation of what is known and how management can address the proposed requirements.

Issues with Comparable Data

It is important to have direct comparison information to understand the impacts of the proposed approach of providing Permissible Total Withdrawal (PTW) either basin wide or by subarea. It seems that the approach is designed to try to address specific areas of groundwater declines within the basin. While the entire basin is being treated as a single aquifer, this solution appears to treat it as made up of independent units. While the logic for treatment of local areas of significant decline makes some sense, the Department should document a direct comparison between what is authorized and the estimated use. The current proposal compares estimated use in 2018 with authorized use in 2023. There needs to be a more direct comparison of use with authorization. Since the Department has a methodology for estimating use (Beamer and Hoskinson, 2021), it seems only prudent to update use to 2023 to have comparable data with permitted use.

Issue of the Difference Between Authorized Use and Estimated Use

Beyond the need to have a direct comparison of authorized use and estimated use for the same time, there needs to be some form of analysis of why there is such a difference between “authorized use” and “estimated use”. If there are abandoned wells or significantly less use than permitted makes a difference in how to address the two problems of: a) over allocation of authorized use, and b) reductions necessary to achieve some kind of reduced impact to the aquifer. The Groundwater Plan from the community identified the issue of abandoned wells and the lack of clear information about which wells are used and which ones are not.

If the Department continues to use the subarea approach, at a minimum the Department:

1. Estimate current use using 2023 ET and pumping data to be comparable with 2023 authorized use for each subarea.
2. Evaluate the reasons for the significant difference between authorized use and estimated use for each subarea.
3. Use estimates based on the level of precision of measurement and level of management.

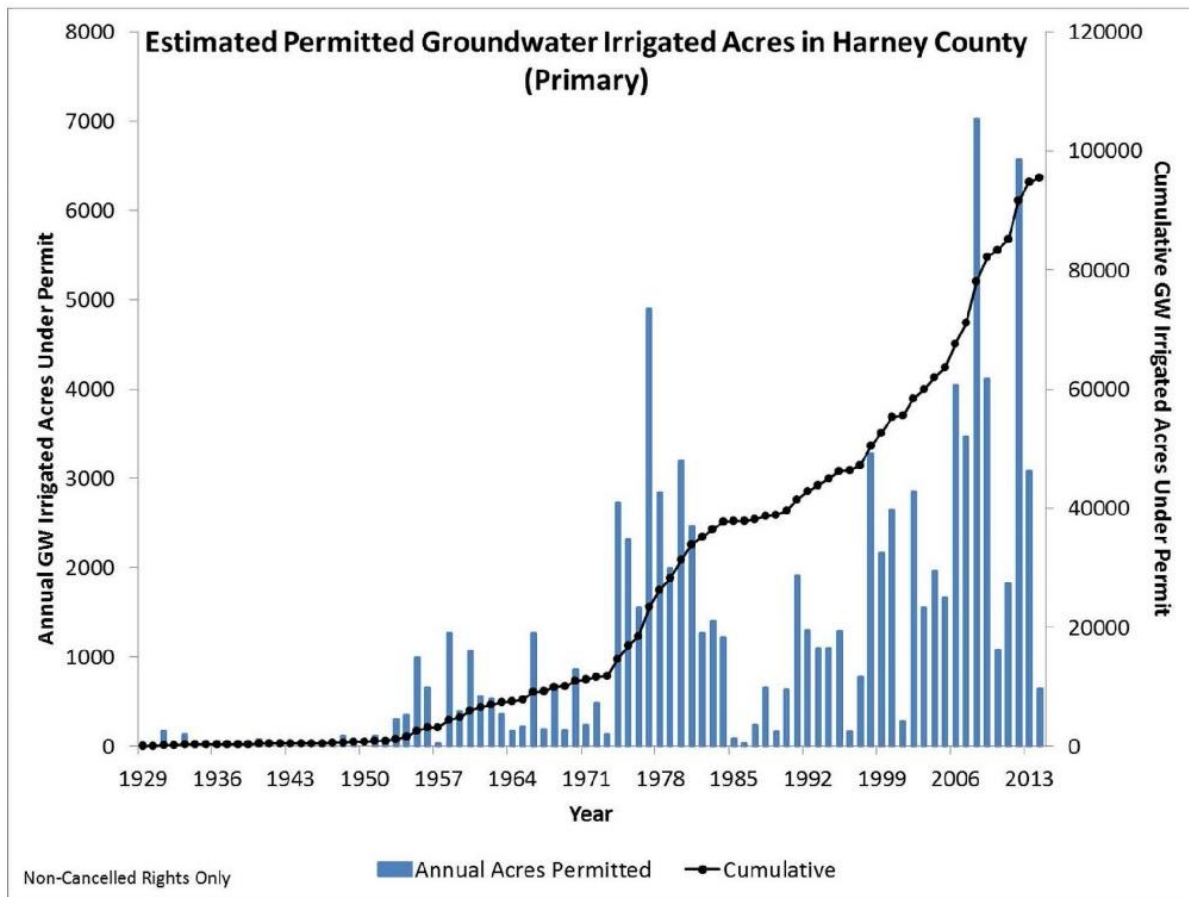
Policy and Implementation Issues

My observation is that the Department is attempting to address both acute impacts (cones of depression) and chronic impacts (over allocation) with a tool that could affect prior appropriation principles depending on implementation approach. The interaction of establishing subareas that have responded to pumping pressure differently is important but how the subareas are regulated raises questions of policy. This concern is only heightened by establishing a PTW for each subarea.

Subarea Regulation Questions

If the approach is to regulate each subarea independently, significant issues of equity arise. It is easy to see regulation on a subarea scale could play out very differently between subareas. The specific timing of groundwater development in each area will likely be different, creating a difference in the application of seniority when applying regulation. Looking at the permitting data (Figure 1), groundwater development varied significantly through time which could easily result in significant differences between subareas based on the differences in the timing of development. The use of subareas as regulatory tools raises significant questions of equity and adherence to the principles of prior appropriation.

Figure 1: Permitted Groundwater Use through Time



One of the vexing

questions is the proposed PTW for the Silvies subarea (13,641 ac-ft) which on its face would not allow the Cities of Burns and Hines to use any more water or expand any manufacturing/industry that needs additional groundwater. They could not readily convert irrigation water rights to municipal/industrial uses because of the limits on use timing for irrigation rights.

Alternative Uses of Subarea PTW

If subareas and some form of their PTW were recommended as potential areas for Voluntary Agreements or some other form of arrangement to address over appropriation rather than regulatory boundaries subject to curtailment they might be less controversial and more acceptable. The recognition that there are smaller areas of the basin that have more acute issues with the effects of over allocation is important and not lost on the people in the basin. What options the community has to address both the acute and chronic issues is very important.

Timing of Remedies

Of critical concern to irrigators and the larger community is how regulation will occur in time. The community has been shocked in the past by sudden change that has had a decades long impact on the economy and community life of Harney County. The magnitude of change being proposed (55% average reduction across the high priority subareas alone) is significant. The reduction of 28,100 ac-ft in just six of the subareas means shutting off some 75 pivots. Even with this magnitude of change, the PTW for the basin is not achieved. How and over what time the reductions occur becomes extremely important both to the individual irrigators and to the community as a whole. The problem has grown over time (at least 30+ years) and reducing the impacts of over allocation should be considered. The community-based groundwater plan recognized the need to consider both the economic and ecological effects of over allocation and over pumping in the basin. They have developed tools that have the potential to have an effect on the reductions necessary yet allow for irrigator choices and economic impact reduction. The community needs time to come to terms

on what choices they have and how to make the sacrifices necessary to meet them.

At the very least the Department should provide some time scale for remedies that gives the community the ability to demonstrate changes they are capable of making with a back up of regulatory implementation if sufficient change is not made. The timeframe for change should recognize the time necessary for both economic adjustment and lifestyle changes.

Alternative Approaches

There are different ways to look at the role and responsibilities of the Department and irrigators to address the over allocation of water rights and over pumping of groundwater. If the basin is treated as a single reservoir (aquifer), the PTW for the basin could be calculated and applied basin wide. The critical question irrigators have is “Will my well be regulated?” One way to provide a clear answer is to calculate the PTW for the basin and identify the priority date at which that level of pumpage was authorized. Summing the PTW from each subarea for a total PTW for the basin is some 106,300 acre-feet/year. Evaluating the permitting history of the basin would identify the date at which that cumulative volume was reached. That could establish the priority date at which junior water users could be regulated off. That date would be a significant driver for Voluntary Agreements or lawsuits. Irrigators are keenly aware of the importance of priority dates and need to know the likelihood of future irrigation opportunities.

Declines through Time

Major change in water-level trends for two areas of significant decline show little decline until around 1990-2000 (Figure 2). If pumpage at that time was “sustainable” it could be used as a means of estimating how much pumpage was actually being used at that time (Table 1).

Figure 2: Local Groundwater Level Change Through Time

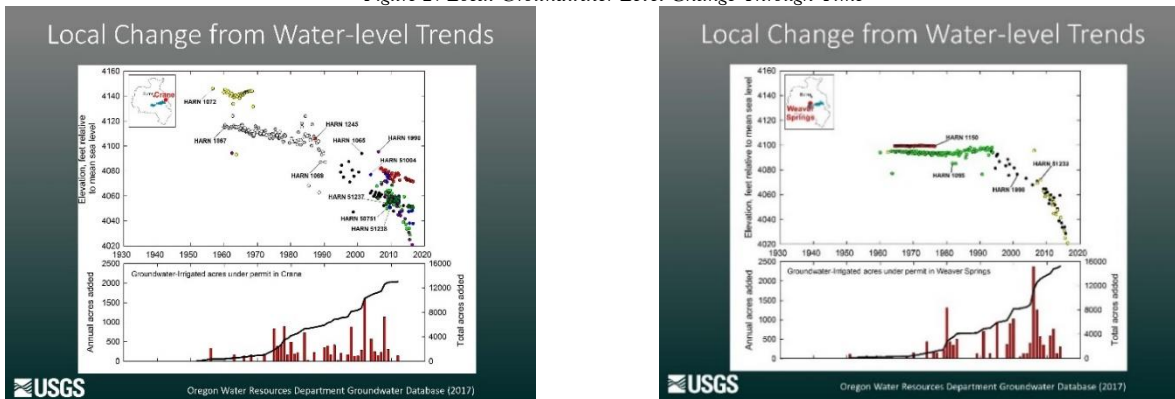


Table 1. Total estimated seasonal groundwater pumpage from agricultural irrigation wells, Harney Basin, Oregon (from Beamer & Hoskinson, 2021)

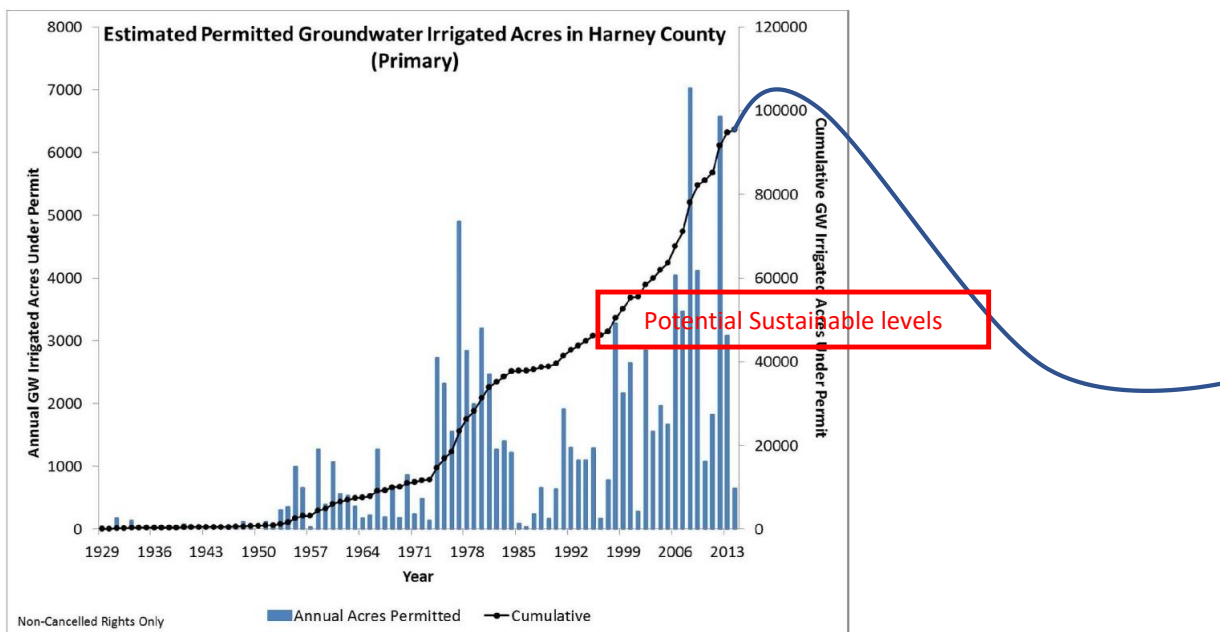
Total Seasonal groundwater pumpage: Computed as the ratio of net crop evapotranspiration and irrigation application efficiency (assumed 70% for fields with groundwater only and 60% for fields with both groundwater and surface water). Combined pumpage represents groundwater pumpage from fields irrigated by both groundwater and surface water (assumed 50% of supplied water from groundwater).

Year	Groundwater primary Pumpage (acre-feet)	Groundwater supplemental Pumpage (acre-feet)	Total Groundwater Pumpage (acre-feet)
1991	39,000	12,000	51,000
1992	45,000	11,000	56,000
1994	49,000	15,000	64,000
2000	66,000	18,000	83,000
2001	67,000	14,000	81,000
2005	54,000	15,000	69,000

2009	72,000	17,000	89,000
2011	72,000	18,000	90,000
2014	110,000	20,000	130,000
2015	100,000	17,000	120,000
2016	120,000	22,000	140,000
2017	130,000	23,000	150,000
2018	120,000	19,000	140,000

If Groundwater use of around 75,000 acre-feet/year is “sustainable” then there needs to be a reduction of some 65,000 acre-feet/year basin wide. The result would look something like below which would require regulation of permitted wells somewhere between 1995 and 2000 (Figure 3).

Figure 3: Alternative way to look at sustainable pumping



Conclusion

It is recognized that there is a significant problem of overpumping groundwater in the Harney Basin. The problem results from over allocation of groundwater rights. The problem has occurred over time and has significant ecological, social, and economic implications. The groundwater study and evaluation of conditions by the Department are important to understanding the physical (groundwater hydrology) conditions of the aquifer. The consideration of how the application of state regulations will affect both the physical and social-economic system needs to be considered. The RAC has been presented with facts about the groundwater conditions and information about the regulatory tools the Department has available yet, there remains important considerations about how the information can be best used to address the complex problems involved. It is critical that the Department recognizes that they are wrestling with a socio-ecological system that has thresholds to both ecosystem functions and social-economic functions. This is a “wicked problem” which means that there are many ways to approach solutions and not a single or correct way to address it.

