

## MEETING MINUTES

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# WMA C Final Status Groundwater Monitoring Plan Comment Disposition (DOE/RL-2019-58, Rev. 0, Regulator Review Draft), August 17, 2020

### Attendees:

Deb Alexander (Ecology)	Doug Hildebrand (DOE)
Kinsley Binard (SSPA)	Jon Lindberg (Ecology)
Rana Evans (DOE)	Jessica Ni (CHPRC)
Bill Faught (CHPRC)	Beth Rochette (Ecology)
Cathrene Glick (Ecology)	Heather Sulloway (Jacobs)
Dib Goswami (Ecology)	

### CC:

**From:** Jessica Ni (CHPRC)

**Date:** August 17, 2020

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This meeting was a teleconference, from 8:00 to 10:05 Pacific Time on August 17, 2020. A summary of the discussion follows.

### Objective:

The objective of this meeting was to disposition open Ecology comments on DOE/RL-2019-58, *Groundwater Monitoring Plan for the Single-Shell Tank Waste Management Area C, Rev. 0, Regulator Review Draft*.

### Discussion:

Bill (CHPRC) opened the meeting, stating that the meeting objective was to close out the remaining review comment response (RCR) comments for the Waste Management Area (WMA) C final status groundwater monitoring plan (GWMP). Jon (Ecology) sent an updated review comment record (RCR) file to Bill prior to the meeting; only 12 comments are open. Most of the 12 open comments relate to how much supporting information should be in the GWMP and what can be incorporated by reference.

- **Comment 2** – add “Final Status” to document title.
  - Deb (Ecology) – should not have to have “Final Status” in the title if that is specified in the text.
  - Jessica (CHPRC) reads from plan introduction which includes language stating that this is a final status groundwater monitoring plan.

- Deb (Ecology) – based on that introductory text, it is ok to leave “Final Status” out of the title.
- Jessica (CHPRC) – the GWMP will be added to the Permit and will not have the title associated with the DOE/RL document number at that point. It will be an addendum without the DOE/RL number or title.
- Dib (Ecology) – GWMPs typically have the “status” in the title.
- Deb (Ecology) – “Interim Status” has been in title because they were DOE/RL documents. “Final Status” is mentioned in the document because the title will not be included when it is added to the Permit.
- Dib (Ecology) – Will the GWMP go to revision 8c of the Permit as a final status plan?
- Deb (Ecology) – yes, it will be final status in 8c.
- Dib (Ecology) – agrees with not changing title.
- **Comment 58** – concerns Attachment 8 and how to reference attachments that are in the Permit.
  - Deb (Ecology) – should refer to Attachment 8, which includes training, inspection, and corrosion, as ‘Permit Attachment 8.’ List the full title once, then can reference “Hanford Sitewide Permit, Attachment 8,” then it is clear that it specifically references Attachment 8 in the Permit.
  - Jon (Ecology) – ok to close.

Ecology agrees that is okay to close those comments marked “ok” by Ecology. Any additional changes made outside of the meeting will be sent to Jon (Ecology) for review.

- **Comments 10, 37, 38, and 40** – address Ecology’s request to include additional information in the GWMP.
  - Jon (Ecology) – it is understood that some request for adding information to the GWMP are specific to current conditions which may change in the future (for example, flow rate and direction); however, if such conditions change then that may lead to a permit modification which would cause a revision to the GWMP anyway.
  - Deb (Ecology) – clarifies that a permit modification will be needed if there is a change. If information is required to be included in the Permit, then statements need to be included in the GWMP.
  - Jon (Ecology) – flow direction is discussed in the text but no arrow is presented in the monitoring network figure (Figure 3-1).
  - Deb (Ecology) – an arrow should be included in Figure 3-1.
  - Doug (DOE) – particle tracking figures were presented in the engineering evaluation .report (EER) and represent the flow direction. Does it need to be presented in the GWMP?
  - Deb (Ecology) – the EER will not be in the Permit so the information here should provide a summary. There are simple Permit modifications options for making minor changes like revising the flow direction on a figure.
  - Bill (CHPRC) – agrees to add the arrow.
  - Jon (Ecology) – doesn’t want to change the GWMP more than necessary.
  - Deb (Ecology) – if the groundwater flow direction does change, then the text, figure, and possibly the network would need updating anyway.
  - Jon (Ecology) – some of these comments were from Stuart. Not sure that all the details requested have to be added.
  - Jessica (CHPRC) – revises DOE response to add that an arrow will be added to Figure 3-1.

- Deb (Ecology) – is there a lot of vertical variability? If there is a situation with high vertical variability, such as need for deep wells, then additional information may need to be included. This would be site-specific.
- **Comment 37** – add additional information on well locations in relation to groundwater flow conditions, well screen placement and sample interval (vertically), changes to the monitoring network if conditions change.
- **Comment 17** – addresses ongoing well network evaluation
  - Deb (Ecology) – GWMP doesn't have to repeat verbatim from the EER but does need to have a summary of why the network is as it is. Part of this comment is to be sure that appropriate info is included in the Permit. If conditions change then there will be a Permit modification. The standard wording used in the other GWMPs that we've been reviewing is ok.
  - Jessica (CHPRC) – yes, this is standard wording.
  - Heather (Jacobs) – clarifies that there are 2 deep wells in the proposed network.
  - Deb (Ecology) – are they for information only or are they in the network and used for compliance?
  - Jessica (CHPRC) – reads well info from the plan.
  - Deb (Ecology) – why are deep wells in the GWMP?
  - Jessica (CHPRC) – the wells were included at the discretion of the project scientist and because this is a compliance monitoring program that is monitoring an existing release. The deep wells are not monitoring for a new release at the top of the unconfined aquifer.
  - Deb (Ecology) – has it been explained that the deep wells are included to monitor for existing contamination? If the deep wells are used for vertical contamination, then include information in the GWMP to explain that so it is clear why the deep wells are included.
  - Jessica (CHPRC) – CHPRC will verify that deep wells are adequately described in the GWMP.
  - Bill (CHPRC) – let's look at the text in the GWMP.
  - Jessica – (CHPRC) – not able to show that file but will send text to Ecology later in the day.
  - Deb (Ecology) – that is ok but leave comment open until then.
- **Comment 38** - provide supporting information (water-level elevation map, groundwater path lines, well locations, and point of compliance)
  - Jessica (CHPRC) – reads comment and response. Comment is closed with addition of flow arrow on Figure 3-1. Particle tracking figure will not be added.
  - Jon (Ecology) – agrees.
  - Deb (Ecology) – agrees.
  - Jon (Ecology) – comment closed. Reviews comments 17 and 40. OK to close with addition of arrow to figure.
- **Comment 49** – issue of ECF-200BP5-20-0002 availability in Administrative Record (AR)
  - Jessica (CHPRC) – the referenced document, ECF-200BP5-20-0002, will be cleared and in AR by the time the WMA C GWMP is final.
  - Jon (Ecology) – ok to close 49.
- **Comment 51** – concerns contaminants for monitoring
  - Jessica (CHPRC) – reads comment and response.
  - Jon (Ecology) – revises part of Ecology response. OK to close and Ecology will request nitrate and tributyl phosphate be added as monitoring constituents by letter.

- Beth (Ecology) – concern is that if a well is corroded and introducing contamination then something needs to be done.
- Jon (Ecology) – if the well is corroded, then it will be decommissioned.
- Beth (Ecology) – the concern is the current condition of corrosion, so why would a well with corrosion still be in service?
- Jessica (CHPRC) – provides the corrosion section of the GWMP and that it references Attachment 8. Explains that monitoring is performed specifically to identify stainless steel corrosion.
- Jon (Ecology) – when corrosion is discovered, there is a process in place to address it but it takes time to address the corrosion.
- Bill (CHPRC) – asks if Beth has seen Attachment 8. Addressing well corrosion is part of the well maintenance program at CHPRC.
- Beth (Ecology) – iron, nickel, and maybe chromium are over the level of concern and the wells should be taken out of service. Will send Jon a list of wells that are exceeding these levels.
- Jon (Ecology) – no other actions are obvious assuming well maintenance is being done.
- Beth (Ecology) – is DOE watching these wells? When will an action be taken?
- Doug (DOE) – suggests a review of Attachment 8.
- Beth (Ecology) – ok to just reference Attachment 8. Add that the RCR response.
- Deb (Ecology) – reference corrosion issue and that Attachment 8 is used to evaluate the wells. Attachment 8 says if trigger levels are met then something has to be done, correct?
- Bill (CHPRC) – yes.
- Jessica (CHPRC) – reads Section 2.8 of the GWMP.
- Deb (Ecology) – agrees with text.
- Jessica (CHPRC) – revises response to include reference to Attachment 8. Comment now closed.
- **Comment 54** – addresses sample data provision to Ecology
  - Jon (Ecology) – asks Beth if it is ok to close.
  - Beth (Ecology) – agrees to close comment.
- **Comment 55** – addresses summary of interim status data inclusion
  - Jessica (CHPRC) – reads comment and response. States that the interim status data is provided in the EER. This process has been acceptable for other GWMP.
  - Jon (Ecology) – the comment was made by Devin Silva who is currently on maternity leave.
  - Jessica (CHPRC) – WAC 173-303-806 requires submittal of interim status groundwater data in the EER. A data submittal is not required for the GWMP.
  - Bill (CHPRC) – what about data for the quarterlies?
  - Jessica (CHPRC) – there is data provided in the quarterlies but the EER data submittal is intended to meet the requirement in WAC 173-303-806.
  - Jon (Ecology) – if confident that the requirement is met, then ok to leave it as is and can close comment.
  - Jessica (CHPRC) – states that the data is provided in Appendix A of the EER.
  - Bill (CHPRC) – the EER is the data quality objectives for the GWMP.
  - Jon (Ecology) – do as Deb said and include summary of germane information but Devin was likely looking for a regulatory requirement. Ok to close comment.
- **Comment 56** – agreement to close comment.

- **Comment 57** – addresses including information, supporting data, and analyses to establish a corrective action program
  - Jon (Ecology) – this seems to be an internal Ecology issue. Should be able to write a GWMP that addresses compliance monitoring only. There are lots of questions about corrective action monitoring but we should just address compliance monitoring here. Leave the comment open and Jon will check with Teresa and resolve the issue internally with Ecology.
  - Bill (CHPRC) – leave a note that the comment is open and Ecology will decide if corrective action monitoring is to be included in the compliance monitoring plan.
  - Jessica (CHPRC) – this is the last open comment. States she will check that information is in the GWMP to explain why the deep wells are included and send that for review later in the day.
  - Bill (CHPRC) – there is value in providing information from deeper wells, but does DOE want to be regulated by it? We need to know what contamination is coming into WMA C from sources upgradient of the unit.
  - Group agrees to officially close out other RCR comments and participants can leave meeting if they choose.

## Break

- **Comments 1 and 3** – agree to close.
  - Jon (Ecology) – the comments with an Ecology response of “ok” can be closed.
- **Comments 9 and 11** – agree to close.
  - Jon (Ecology) – **comment 11** (addresses description of point of compliance [POC]) – there is not a problem with the network and not worth additional discussion on describing the POC.
  - Bill (CHPRC) – the existing and proposed wells are the POC.
  - Jon (Ecology) – agrees.
  - Jessica (CHPRC) – reads from the GWMP Section 2.1 and confirms that the POC is addressed.
  - Bill (CHPRC) – add a reference to Section 2.1 or state that the wells are located at the POC per Section 2.1 of the GWMP.
  - Jon (Ecology) – yes, that satisfies the comment.
  - Jessica (CHPRC) – revises response.
- **Comments 12 -14** – agree to close.
- **Comment 14** – concerns discussing dilution effect of long well screens
  - Jon (Ecology) – is Appendix B discussed in Section 2.4?
  - Jessica (CHPRC) – no, Section 2.4 is just the network. It does not address how to sample.
  - Jon (Ecology) – can the screen length be mentioned? It was important and Stuart Luttrell wanted it mentioned in the text. Stuart had concerns with well screens that are too long.
  - Jessica (CHPRC) – looks for a place in the GWMP to add info on screen lengths.
  - Dib (Ecology) – has not seen Appendix B. What technical information is included in Appendix B?
  - Jon (Ecology) – Appendix B provides that if screens are too long, discrete interval sampling is performed.

- Dib (Ecology) – that is good. Can add a sentence that sampling will be done per Appendix B.
- Jessica (CHPRC) – will add a sentence in Section 2.4. Revises RCR response.
- **Comments 15 – 18** – agree to close
- **Comment 19** – addresses Hanford Environmental Information System (HEIS) and Environmental Dashboard Application (EDA) access
  - Bill (CHPRC) and Doug (DOE) – discuss HEIS/EDA and confirm that public access is available to these websites.
  - Jon (Ecology) – ok to close comment 19.
- **Comments 20 – 37, 39 – 41, 48, 50, 52-53** – agree to close.

**Concluding remarks:**

- Jon (Ecology) – **Comments 37 and 57** are still open. Comment 57 is for Ecology to discuss internally and resolve. CHPRC (Jessica) will verify text or add text regarding the use of deep wells at WMA C.
- Bill (CHPRC) – schedule expectations. Jeff Lyon is not on the call. Wants group to be aware that the LERF EER and GWMP are the number 1 priority, WMA C GWMP/single-shell tank (SST) consolidated GWMP is number 2 priority, Trenches 31/34 GWMP is number 3 priority. LERF and SST work are for the 8c revision of the Permit. Is Trenches 31/34 work still for revision 8c and should the priority be changed?
- Jon (Ecology) – doesn't know the answer and will have to ask Ecology.
- Bill (CHPRC) – it is important to align priorities and needs to respond to Kelly Elsethegan (regarding Trenches 31/34 GWMP). Is Ecology talking internally about priorities?
- Jon (Ecology) – can he, Bill, and Jeff talk later about schedule? Wants Jeff to hear from Bill.
- Doug (DOE) – agrees with Bill's priorities in what he has heard from Ecology. Thinks Trenches 31/34 will be the later priority.
- Dib (Ecology) – Kelly is scheduling a meeting for Trenches 31/34. LERF is first priority and tank farms is second priority.
- Doug (DOE) – not enough time in the year to do Trenches 31/34 work.
- Dib (Ecology) – agrees but doesn't know all the schedules. Needs internal Ecology discussion.
- Bill (CHPRC) – WMA C and WMA A-AX GWMPs could easily go to revision 8c of the Permit. The consolidated SST plan is complicated. Would be good to get WMA C and WMA A-AX into 8c.
- Dib (Ecology) – agrees.
- Jon (Ecology) – will talk with Jeff.

**Actions:**

1. Jessica (CHPRC) will provide text related to the inclusion of deep wells at WMA C to DOE to share with Ecology.
2. Jessica (CHPRC) - will clean up and format the RCR document to finalize the RCR.
3. Jon (Ecology) – will discuss schedule and priorities with PMs at Ecology.

**Agreements Made:**

- An arrow will be added to well network figures in final status groundwater monitoring plans.
- Water table maps will be added to the final status groundwater monitoring plan.