

**FINAL MEETING SUMMARY**

**HANFORD ADVISORY BOARD  
RIVER AND PLATEAU COMMITTEE**

*January 7, 2014  
Richland, WA*

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*This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.*

**Opening**

Pam Larsen, River and Plateau Committee (RAP) chair, welcomed the committee and introductions were made. The committee provisionally approved the November meeting summary, pending additional edits from Jonathan Matthews.

Hillary Johnson, EnviroIssues, reminded committee members that nominations for committee and Hanford Advisory Board (Board or HAB) leadership positions are due to the facilitation team in February and selections will be made in March. An email will be sent out with more detailed information.

**Briefing on 100-F Remedial Investigation/Feasibility Study and Proposed Plan (Revision 0)\***

**Joint with PIC**

*Introduction*

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\* Please see Attachment 1 – Transcribed Flip Chart Notes for key points/follow up actions recorded during the committee discussion.

Dale Engstrom, issue manager for the 100-F Remedial Investigation/Feasibility Study (RI/FS) and Proposed Plan Rev 0, introduced the topic. He said most of the 100 Area River Corridor project RI/FS and Proposed Plans are in Draft A. 100-F, which includes the F Reactor, is currently in Revision 0. The Board has only recently been given opportunities to review documents when they are in the Draft A stage and usually only reviews documents in the Rev 0 stage. The Board issued advice on Draft A of the 100-F RI/FS in June 2013.

#### *Agency presentation*

Greg Sinton, U.S. Department of Energy – Richland Operations Office (DOE-RL), provided a presentation on the 100-F/IU Proposed Plan (Attachment 2). In his presentation, Greg noted the following points:

- There has been a lot of progress on 100-F/IU cleanup; 14 sites remain to be remediated as of December 2013 and there will be approximately 10 sites that will still require remediation after the ROD is issued.
- There is a large nitrate groundwater plume with smaller plumes of strontium and technetium.
- Several remedial alternatives and groundwater alternatives are examined in the document, including an option for Remove, Treat, Dispose (RTD). Monitored Natural Attenuation (MNA) coupled with institutional controls (ICs) are one component of the remedial alternatives. The preferred alternative is Alternative S-2 RTD.
- Changes to the 100-F/IU Proposed Plan since Draft A include an IRIS update, simplified risk selection, language clarifications in the risk section (based on a HAB recommendation), an updated waste site status from March 2013, and additional updates based on feedback from the U.S. Environmental Protection Agency (EPA), DOE-Headquarters and others.
- The schedule is only tentative at this point; public comment is tentatively anticipated for May/June.

#### *Agency perspectives*

Chris Guzzetti, EPA, said the RI/FS and Proposed Plan Rev 0 is currently under review by EPA's attorney. Comments can be extensive and take time to resolve. The proposed MNA approach is not a dismissive remedy; monitoring is a large part of MNA. Additional wells will be installed and a regular monitoring schedule will be established to ensure the environment is behaving in accordance with model predictions. If the monitoring indicates an area of concern additional remedies will be evaluated.

Madeleine Brown, Washington State Department of Ecology (Ecology), said EPA is the lead agency for the RI/FS so Ecology does not have a lot of involvement. Ecology will be ensuring the proposed alternative is in compliance with state requirements.

## *Committee Questions and Responses*

*Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.*

C. Rev 0 is the end point of the RI/FS and Proposed Plan Record of Decision (ROD) development process. The Board already offered comments on Draft A. DOE is proposing the same preferred alternative that was initially proposed. The Board offered some suggestions on additional treatments that could be implemented to address the strontium plume and nitrate plume plus some other areas the Board believed could be improved in the document. 100-F is a small project compared to other sites along the Columbia River and the approach seems fairly reasonable. There would be a large cost difference between the proposed cleanup approach and completing additional work so the decision is reasonable, although it could be better.

Q. Would the Board's advice on Draft A be relevant for Rev 0?

*R. Rev 0 is basically the same as Draft A except for some minor changes. The alternative still includes MNA with institutional controls. The Board offered advice recommending additional treatment for the nitrate plume and a preference for DOE to follow the middle-ground alternative. Those recommendations would still apply but DOE has already responded through Rev 0 by continuing to follow their original preferred approach.*

C. The issues raised in the Board's Draft A advice are still valid. The Board included points about unrestricted use of the Columbia River that should be reiterated with Rev 0. The Board should note that there is no significant change in the remedy and remains concerned about the standards. What types of reviews will be established?

*R. [EPA] Five-year reviews will be required and there will also be monitoring prior to the formal Five-Year Review. Modeling should show an overall decreasing trend from one year to the next, which is what would be expected under the MNA approach. If there is no decreasing trend then another remedy would need to be considered.*

C. Another important point from the Board's previous advice is that the timeframe required for contaminations to decline to acceptable levels is too long. Cleanup to unrestricted use of the Columbia River is a very important Board value.

*R. [EPA] The timeframe to reach acceptable levels for strontium is 150 years; other contaminants will reach acceptable levels in less time. Modeling indicates that the strontium is not very mobile and the expected timeframe to reach acceptable levels for strontium was very similar across all the proposed alternatives.*

Q. How do the agencies quantify how much of a reduction is sufficient? Under what scenario would the agencies decide more action is necessary?

*R. [EPA] The agencies rely on modeling and then comparing reality to what the models predict. The answer is dependent on results of monitoring. Generally, as long as a decreasing trend is observed, the MNA approach is meeting expectations.*

*R. [DOE] RODs do not typically contain a definite threshold or statistical value; there is usually a protectiveness threshold. The agencies focus on whether there are increased risks or if the remedy continues to be protective of human health and the environment rather than some predetermined threshold value. The contaminants do move and concentrations will increase and decrease so the main concern is for trends over time and whether the contaminants exceed risk thresholds.*

C. MNA is usually proposed when the risk to the population is not very high so it is difficult to defend large-scale actions to reduce a risk that is already fairly low.

C. Another factor to consider is cost versus risk reduction. Cost should be considered in Five-Year Reviews to determine if other remedies might be more cost-effective with the end goal of cleaning up the Hanford Site to unrestricted use standards as soon as practicable.

Q. Who will be conducting the monitoring and the Five-Year Reviews? It is important that information is not lost between any changing contractors.

*R. [DOE] The contractor for groundwater monitoring is CH2M Hill – Plateau Remediation Company (CHPRC) through at least 2018. There are a number of other contractors involved in these efforts that provide input and data. The Five-Year Review is DOE's responsibility, conducted by contractors. The connection between DOE and the regulators is ongoing and continues regardless of who the contractor is.*

*R. [EPA] The Proposed Plan and ROD are agreements between the regulators and DOE. DOE hires contractors to conduct the agreed-upon work but ultimately the oversight is responsibility of DOE in consultation with the other TPA agencies.*

In order to decide on the path forward, RAP first needs to read Rev 0 when it is available to determine if there are enough concerns to warrant Board advice. Once Rev 0 is issued, RAP should discuss any issues with the document. The Board would need to issue advice during the May or June meeting to coincide with the currently expected timeframe. RAP should keep a placeholder slot for discussing the topic during a possible March meeting; if release of Rev 0 is delayed, RAP can defer the topic until the document is available since the current timeline is unclear.

### **Briefing on the Annual Hanford Site Groundwater Monitoring Report\***

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### *Agency presentation*

Naomi Jaschke, DOE-RL, and DJ Watson, Pacific Northwest National Laboratory (PNNL), gave an update on the Annual Hanford Site Groundwater Monitoring Report, which is now available online. The format for the 2013 Report is very different from previous versions; there is an interactive component using Phoenix technology that allows users to explore data themselves. DOE has also made a pdf version of the report that is available online for those who prefer that format. The interactive data allows comparison of long-term trends by examining information from each year. There are areas of the report that do not translate well into the interactive format; that data can be accessed through links on the website. DJ gave an overview of how to use some of the interactive tools, including how to access information on well sampling and contaminant plume locations over time. This format allows groundwater scientists to simply upload their data from year-to-year and the information will automatically populate. The information will continue to be standardized; there are currently no set contour intervals for the maps, which makes comparing data collected by different entities or at different times difficult if the intervals chosen are different.

### *Regulator perspectives*

Dib Goswami, Ecology, said this format is a complete change from previous Groundwater Monitoring Reports. It is important to have a comparable hard-copy version for people who are more comfortable with the traditional written report. DOE did an excellent job with this first year of the new format. Interactive capabilities that allow users to take a more in-depth look at the data are very useful. There are a few glitches with the system that are being resolved and the most important aspect is that the system is user-friendly. Ecology uses the Phoenix system extensively for daily work, especially for the tank farms. DOE has held workshops on the Phoenix system and there will be another workshop on February 15 from 9:00 a.m. – 12:00 p.m. There are slots for people to attend, if interested.

Larry Gadbois, EPA, said one these tools can be used to track trends over time. For instance, the capability to track plumes over time can be used to track the effectiveness of MNA as proposed for 100-F.

### *Committee Questions and Responses*

*Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.*

Q. ASCEM is being beta-tested for other applications at the Hanford Site and at Savannah River. Is ASCEM being considered for us in conjunction with the Phoenix technology in the Groundwater Monitoring Report?

*R. [PNNL] ASCEM is not currently being used with Phoenix although there have been some discussions about how to incorporate it. Phoenix is used more for data visualization while ASCEM is a modeling platform that allows analytics of modeling. There could be opportunities*

*for collaboration and integration between the tools in the future but right now there are data limitations.*

Q. Are users able to print the interactive data on screen?

*R. [PNNL] The program does not have printing capability other than the standard screen shot function all computers have. The data package can be downloaded and manipulated as well so users could save an Excel file and present information that way.*

*R. [DOE] Features such as improved printing capabilities will continue to be considered; the goal is to make this report as user-friendly as possible. DOE is accepting feedback on any suggested improvements; there is a link on the website to submit comments.*

Q. Sampling wells vary in depth, frequency of sampling, and other aspects. Some of the wells do not sample deep enough in the groundwater to provide meaningful measures. Will this tool offer information on these artificial boundaries? How would users of this tool be able to get information on any possible holes in data gathering?

*R. There are wells that only reach 15 feet into the water table and some wells that were used in the past but are no longer being sampled. There are also new wells being installed and wells that reach deeper into the groundwater. It is useful to compare trends occurring yearly and the groundwater monitoring report can help understand these trends. Estimates of plume location does somewhat depend on where sampling wells are located so there may be changing views of the plume if different wells are sensing different areas of the plume. It is important to be cognizant of these issues and be aware of data limitations. The interpretation of data does change. Using the interactive tool, it is possible to get information on the wells as well as the sample data itself. That information was not available in the past.*

RAP thanked DOE for the information. Anyone interested in the Phoenix workshop can contact Madeleine for more information.

### **Committee Work Planning Discussion for 100-N RI/FS and Proposed Plan\***

#### *Introduction*

Dale said the 100-N RI/FS and Proposed Plan Draft A was issued in late fall 2012. RAP had a lot of discussion about Draft A and held a round robin discussion during the August RAP meeting (Attachment 3). There were some interesting points made during the round robin and the committee discussed possibly writing advice on the topic. Dale reviewed some potential concepts for advice on 100-N (Attachment 4)

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that the issue manager group had developed and asked that RAP determine whether the Board should go forward with writing advice on the 100-N RI/FS Draft A or wait until Rev 0 before possibly writing advice.

### *Committee Questions and Responses*

*Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.*

C. The Board as always commented when RODs are issued and always requests the opportunity for early input. The Board was given the opportunity to comment on Draft A and should take advantage of that opportunity by writing advice. Round robin discussions are not the same as official Board advice.

C. The agencies have cautioned the Board against offering advice at this time because they are in ongoing negotiations that may lead to drastic changes between Draft A and Rev 0. Any Board advice could speak to points in the document that will be changing anyway. DOE has comments from Ecology and is working to resolve those comments before Rev 0 is issued.

Q. What is the expected timeline?

*R. [DOE] DOE is working extensively with Ecology on the D&H RI/FS, which is a priority since the agencies would like to issue D&H for public comment in Fiscal Year (FY) 2014. Many of the issues with 100-N will be resolved through D&H although there are also many issues that are unique and will not be resolved. Public comment on the 100-N RI/FS will likely occur sometime in FY 2015.*

*R. [Ecology] Ecology appreciated the round robin comments because those comments provide the breadth of opinion from representative organizations on the Board. Consensus advice narrows the scope and focus of the issues. Board advice would be more helpful to the agencies at Rev 0 since so much is changing since Draft A was issued.*

C. The Board will not have the opportunity to hear about what is being discussed during the negotiations between agencies between Draft A and Rev 0. Board advice is best issued in response to a specific document and not based on what the Board believes a document should contain. The Board should not issue advice unless they can be given more information on what changes will be coming in Rev 0.

Q. How much of the D&H discussion can be applied to 100-N? 100-N is very different.

*R. [DOE] Some of the modeling aspects of the D&H RI/FS and other technical considerations can be applied to 100-N. Concerns with the technical details are the focus of current conversations at this time.*

*R. [Ecology] The discussion on risk assessment functions and those types of conversations will be applicable; the actual recommendations in the D&H RI/FS may not apply.*

Q. RAP had a discussion in November regarding the Board's frustration about a perceived lack of consideration for Board advice from the agencies. The Board does not believe their recommendations are being seriously considered. Would Board advice prior to Rev 0 have any impact on the agreement between Ecology and DOE?

*R. [Ecology] Consensus advice from the Board does carry more weight than a round robin discussion. Ecology does have the round robin comments to consider through negotiations with DOE. If the Board did offer advice prior to Rev 0, Ecology would take that into consideration but it is difficult to determine how much of an input that advice would have since the draft is still under development.*

C. The committee should consider the timeline very carefully to determine when the Board can provide the most meaningful input. Advice should potentially be brought forward during the June Board meeting. D&H should be issued by June and can be used to potentially understand some of the thinking that will also apply to 100-N. The Board has heard that the technical impracticability waiver is still being considered in the 100-N RI/FS since nothing has been officially changed since Draft A was issued.

*R. [DOE] The technical impracticability waiver is an action led by EPA; the waiver is one consideration along with an MNA period. DOE heard the concerns about the technical impracticability waiver from the round robin. The document can change drastically between the versions. 100-N is a long process and the agencies are still very early in discussions.*

C. Early input from the Board should be given whenever possible. If the Board can reach consensus on a topic and has something to say about it, the Board should issue advice on that topic. Round robin conversions tend to be less well-thought out and more flexible than formal Board advice. Round robin conversations can be offered in tandem with Board advice; it does not need to be an either-or scenario since both are valuable and can serve different purposes. Any outcome that reflects Board values would be a form of response to the advice, even if that response is seen in Rev 0 of a document and not a point-by-point response to advice.

*R. [DOE] The agencies may have a difficult time responding to any Board advice at this time since so much is still unresolved between Draft A and Rev 0. The agencies do consider Board advice and other public comments extensively. Changes are made based on public comment when it is warranted.*

Q. If there are going to be fundamental changes between Draft A and Rev 0, would the Board be able to address those proposed changes before Rev 0 is officially issued?

*R. [EPA] The agencies were able to brief the Board about what was expected to be included in Rev 0 of the 100-F RI/FS because there was general agreement on a path forward and they could be fairly certain about some general aspects of what would be contained in Rev 0. The RI/FS and Proposed Plan for N and D&H have more difficult technical and regulatory issues that still need*

*to be decided among the agencies before sharing any information with the Board. It would be premature to share the discussions without being clear on what the consensus decision will be.*

C. The Board is obligated to put forward advice and would be neglecting their responsibilities if the Board does not issue advice before Rev 0 is issued. There will be opportunities to offer subsequent advice when Rev 0 is issued. The Board should not wait until hearing what a decision will be before offering advice; the Board's advice will not be very influential by following that approach. It is important that the Board take advantage of all opportunities to offer advice early or that opportunity may not be given again in the future. The Board should offer advice on Draft A and wait to see what the outcome will be in Rev 0.

C. Board advice would reiterate what was stated before when Draft A was issued and could be used by the agencies in their negotiations. The Board can then see if their advice was incorporated in Rev 0 and can offer advice again on Rev 0. The round robin discussion can bring forward individual ideas but does not have the strength of consensus Board advice on a clear policy.

*R. [DOE] The Board does offer advice on policy-level issues. The discussions between the agencies at this point are very technical in nature and it would be unusual for this type of Board to offer advice on these technical concerns. DOE and the agencies will consider any Board advice on Rev 0 and would make changes as appropriate. There are changes occurring between Draft A and Rev 0 based on Board advice.*

C. Board advice at this point would only create more work for the agencies and would not be helpful. It is unlikely the Board would provide anything new since the previous advice on 100-N was issued.

RAP decided to draft advice to bring forward during the March Board meeting and will try to reach committee consensus on the draft advice during the February RAP meeting. EnviroIssues will put the concepts for advice into draft advice format and distribute it to the committee for review prior to the February RAP meeting, along with links to the Draft A documents. Any edits or suggestions should be sent to the issue manager group or should be held until the February RAP meeting for discussion.

### **Committee business\***

#### *3 month work plan*

RAP reviewed their three month work plan.

The committee will request a meeting in February to discuss an amendment to the Environmental Restoration and Disposal Facility (ERDF); to continue discussions on the 100-N draft advice; to have an

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issue manager-led discussion on the 100 D&H RI/FS; and to hear a presentation about the Class III modification to the Resource, Conservation and Recovery Act (RCRA) Permit. The committee requested that DOE provide the same presentation and the same information that was given to the public during the recent public comment period. The committee also requested information from DOE regarding the EPA investigation be discussed in context of the modifications. Committee members will also distribute their outline of the RCRA modifications. RAP had previously decided not to consider issues with D&H because there are more pressing concerns for the 100-N RI/FS, although there may be some new questions about D&H that would merit committee discussion. The issue managers will review recent presentations and meeting summaries where D&H was discussed to determine if any next steps are required.

Potential topics for March include an update on River Corridor Cleanup efforts and progress with 309 and the 340 vault. There may also be a tour of the Plutonium Finishing Plant in March.

### **Attachments**

Attachment 1: Transcribed flipcharts

Attachment 2: DOE presentation on the 100-F/US Proposed Plan

Attachment 3: RAP round robin discussion on the 100-F Proposed Plan

Attachment 4: Potential concepts for advice on 100-N RI/FS and Proposed Plan

### **Attendees**

Board members and alternates

Richard Bloom	Theresa Labriola (phone)	Daniel Serres
Shelley Cimon	Pam Larsen	Dick Smith
Sam Dechter	Ken Niles (phone)	Bob Suyama
Dale Engstrom	Jon Matthews	Gene Van Liew
Gary Garnant	Liz Mattson	Jean Vanni
John Howieson	Alex Nazarali	Steve White
Steve Hudson	Dave Rowland	

Others

Kim Ballinger, DOE-RL	Madeleine Brown, Ecology	Joy Shoemake, CHPRC (phone)
Brian Charboneau, DOE-RL	Alicia Boyd, Ecology	Nicole Addington, EnviroIssues
Mike Cline, DOE-RL	Dib Goswami, Ecology	Hillary Johnson, EnviroIssues
Jim Hansen, DOE-RL	Dennis Faulk, EPA	Michael Turner, MSA
Naomi Jaschke, DOE-RL	Larry Gadbois, EPA	Mike Freshley, PNNL
Greg Sinton, DOE-RL	Chris Guzzetti, EPA	Tom Rogers, W-DOH
	Emy Laija, EPA (phone)	

