



Hanford Advisory Board

FINAL MEETING SUMMARY

December 7-8, 2016

Pasco, WA

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This is only a summary of issues and actions presented at 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.

Executive Summary

Hanford Advisory Board Action

The Hanford Advisory Board (HAB or Board) adopted two pieces of advice:

- [HAB Advice #291 regarding State of the Site Meetings and Technical Webinars](#)
- [HAB Advice #292 regarding Declining Board Budget](#)

Hanford Advisory Board Business

Board members adopted the provisionally adopted Fiscal Year (FY) 2017 HAB calendar. Board members also provided approval for two letters from the Board chair:

- [One letter regarding Board Budget Priorities](#)
- One letter to Scott Sax, Washington Closure Hanford (WCH), acknowledging appreciation for his organization's work

The Board sent a letter regarding Central Plateau Principles/WA-1 Operable Unit Work Plan back to the River and Plateau Committee for additional consideration.

Board members also voted on a new Board vice-chair and national liaison, as well as approved a recommendation for candidate for the position of Board chair.

Presentations and Updates

The Board received the following presentations:

- Tri-Party Agreement (TPA) agency annual reports – Look Ahead, Look Back
- Status update on New Mexico's Waste Isolation Pilot Plant (WIPP)
- WCH work on the River Corridor
- Board committee reports

Public comment

No public comment was provided at this Board meeting.

HANFORD ADVISORY BOARD

December 7-8, 2016

Pasco, WA

Steve Hudson, Hanford Watch and Board chair, called the HAB meeting to order. The meeting was open to members of the public and offered opportunities for public comment.

The Board meeting was audio-recorded.

Welcome, Introductions, and Announcements

Dawn MacDonald, U.S. Department of Energy (DOE) Office of River Protection (ORP) and co-Deputy Designated Federal Officer for the HAB, welcomed members in attendance and noted that the Board was meeting in accordance with the Federal Advisory Committee Act (FACA).

Cathy McCague, HAB facilitator, provided members with an overview of the meeting agenda, objectives, and provided documents. She encouraged attendees to review materials available on the back table. She also noted that a photographer would be in the meeting room at the beginning of the meeting. She also encouraged members to review the recently released 2016 HAB Annual Report.

Steve confirmed the adoption of the September 2016 Board meeting summary.

TPA Agencies Report – Look Ahead, Look Back

U.S. Department of Energy – Richland Operations Office

Doug Shoop, DOE Richland Operations Office (RL) Manager, provided Board members with a presentation¹ highlighting recent RL activities and process. Doug noted the following key points in his presentation:

- RL's 2020 Vision encompasses projects and cleanup work that the agency is hopeful to accomplish safely, securely, and compliantly by the close of FY 2020. RL is making strong progress towards fulfilling the 2020 Vision, and it will take a funding profile of approximately \$900 million per year to accomplish all 2020 Vision goals.
- September 2019 is the target date for the completion of the River Corridor Capital Asset Project. Much of the cleanup in the River Corridor has been accomplished under interim actions, which were important in order to begin cleanup as quickly as possible. RL would prefer that all River Corridor Record of Decision (ROD) remedial actions be completed and groundwater remedies be implemented no later than December 2019. Exceptions to this December 2019 goal include the

Attachment 1: Richland Operations Office 2020 Vision, 12/7/2016 (RL presentation)

arsenic cleanup in the Orchard Lands, removal of the K Basin Sludge, and remediation of the 618-11 Burial Ground.

- In the 300 Area, CH2M Hill Plateau Remediation Contract (CHPRC) is beginning to hire and train crews to work on the 324 Building. The work is complex, and it needs to be mindful of the radioactive contamination that exists below the building known as the 300-296 Waste Site. Current plans call for retrieving 300-296 Waste Site contamination remotely then disposing of it at the Environmental Restoration Disposal Facility (ERDF), potentially by placing it within adjacent 324 Building hot cells and then grouting it. A mock-up facility to test 324 Building cleanup strategies is anticipated to be completed this year.
- At 618-10, 80 vertical pipe units (VPU) constructed of corrugated metal have been augered and most of these have been retrieved and disposed of at ERDF. Fourteen additional steel VPUs remain to be addressed, and the contractor will begin work retrieving them soon. CHPRC is also beginning to work on remediating the 316-4 Waste Site, which is adjacent to 618-10 and has been on hold until the VPUs were able to be addressed.
- Work on the K Area sludge removal project is ongoing. Construction on the Annex facility, which will house some sludge retrieval equipment, is completed. Testing of sludge transfer equipment and worker training is also completed. Equipment is currently being installed in the basin. The anticipated date to have the K Basin Annex built and complete the operational readiness review is November 2019, and this work is currently ahead of schedule. RL is challenging CHPRC to transfer all K Basin sludge to T Plant by the end of their contract in September 2018.
- At the Plutonium Finishing Plant (PFP), work on demolishing the facility to slab-on-grade is ongoing. Crews are continuing the difficult work in a safe and methodical way.
- At the Waste Encapsulation and Storage Facility (WESF), RL is continuing to examine ways to move the 1,933 cesium and strontium capsules, currently stored in concrete pools, into safer dry storage. By December 2019, RL will likely begin procurement and construction of the dry storage containers and begin construction of a storage pad.
- Groundwater cleanup is continuing successfully in both the River Corridor and in the Central Plateau. RL hopes that the final two RODs for groundwater (BP-5 and PO-1) can be finalized by December 2019. Groundwater treatment capacity is expected to increase to 1.3 billion gallons per year in 200 East and 200 West by December 2019.
- The focus of RL's work is shifting from the River Corridor to the Central Plateau. Work is anticipated to be very complex, and additional characterization of waste sites and infrastructure is needed. RL will work on that until September 2018.
- Critical infrastructure updates are needed in order to support the long-term mission of DOE Office of River Protection (ORP). Priority projects, to be completed by December 2019, are highlighted within the presentation on slide 18.

- An update of Hanford’s Resource Conservation and Recovery Act (RCRA) Permit (Rev. 9) is anticipated in the coming years. RL, ORP, and the Washington State Department of Ecology (Ecology) are currently examining strategies for streamlining the process, and the agencies are hopeful that the update can be finalized by December 2019.
- RL is working with the U.S. National Park Service to plan for the transitions of some Hanford lands to the Manhattan Project National Historical Park. The transition plan is anticipated to be completed in March 2017, and implementation of the plan is anticipated to begin in September 2018.
- RL is continuing to work on establishing and implanting protocols associated with accessing, using, and managing Hanford lands. In addition, RL recently worked with tribes to sign Memoranda of Understanding/Memoranda of Agreement in order to facilitate tribal access to some Hanford lands.
- Several RL and ORP contracts are coming to an end at the close of FY 2018 or shortly thereafter. The Office of Hanford Acquisition is currently examining upcoming work and creating a master acquisition plan. Draft Requests for Proposals are anticipated to begin being released in Spring 2017, and DOE is targeting December 2019 as a target for completing all contract transition activities.
- Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulations, DOE is required to restore natural resources at the Hanford Site to the quality that they were prior to the release of contamination. Senior trustees from federal agencies, state agencies, and tribes are working together to study and fund restoration work. Trustees are looking at potential sources of funding for completing restoration work on the site so that cleanup funding does not have to be used.
- RL and ORP are continuing to collaborate on cleanup work. Both offices are moving to the same location to continue making meaningful progress as cleanup shifts to the Central Plateau.

Doug closed by sharing a video of ongoing demolition work at the PFP complex.

U.S. Department of Energy – Office of River Protection

Kevin Smith, ORP Manager, provided Board members with a presentation² highlighting recent ORP activities and achievements. Kevin highlighted the following key points in his presentation:

- Ongoing work and accomplishments at the Hanford tank farms includes:
 - Retrieval of tank waste from single-shell tanks (SST) in the C Farm is completed with the exception of tank C-105, which posed challenges to retrieval due to a hard crust that

Attachment 2: Agency Update, 12/7/2016 (ORP presentation)

formed over the waste. At C-105, retrieval may be completed by September 2017, but is challenging to predict.

- Preparations for tank waste retrieval at SST tanks in the A-AX Farms are ongoing. Lessons learned from C Farm retrieval activities will be implemented at A-AX Farms to ensure implementation of the most efficient retrieval strategies. A Farm also includes a pilot array for advanced vapor detection technology.
 - Retrieval of tank waste from leaking double-shell tank (DST) AY-102 is continuing, and approximately 95% of the mostly liquid waste has been removed. Four extended-reach sluicers have been installed in the tank, and the readiness evaluation has been completed. ORP has provided Washington River Protection Solutions, LLC (WRPS), the tank farm operations contractor, with approval to work out final details for removing the final materials (approximately 40,000 gallons) from the tank. Work on the final phase of removal will begin soon, and ORP anticipates that retrieval will be completed by March 4, 2017.
 - ORP has completed the procurement of a new reboiler for the 242-A Evaporator.
 - ORP is currently testing 100s of devices and capabilities for tank farm vapor detection and management. The goal of the process is to ensure that workers do not come into contact with harmful tank vapors.
 - ORP transmitted a letter to Ecology to note that two tank waste retrieval milestones are at risk. Work to complete these milestones is taking longer than anticipated due to the need for workers to wear self-contained breathing apparatuses in tank farms.
- Ongoing work and accomplishments at the Waste Treatment and Immobilization Plant (WTP) includes:
 - ORP anticipates that construction of the Low-Activity Waste (LAW) facility will be completed in about a year. The last major piece of LAW equipment, a 19-ton caustic scrubber, was received and emplaced in the LAW facility in mid-November. Completion of the facility will be an important milestone in ORP's goal to begin treating LAW as soon as 2022 through the Direct-Feed Low-Activity Waste (DFLAW) system.
 - Building 87 is now fully energized with permanent power. ORP is working to ensure that everything installed into the facility is functioning as anticipated. Overall, WTP activities are beginning to switch from construction to start-up and operation.
 - It is likely that the federal government will operate on a continuing resolution until April 2017. This means that ORP is operating with approximately \$86 million less funding than was anticipated. This money cannot be used until it is provided; therefore, there is a loss of efficiency with regard to procurement and contracting. This lack of funding impacts tank farm retrieval efforts, as well, and it contributes to ORP notifying Ecology that two tank waste retrieval milestones are at risk.

- The tank farm vapor website has been totally redesigned and reconceptualized. There is a wealth of information available at this website. Future tank farm data will be uploaded to the websites, and it may be accessed at HanfordVapors.com.
- WRPS recently received a National Innovation Award from the Voluntary Protection Program for a product that can protect a worker wearing respiratory equipment against an electrical arc flash. Previous equipment did not protect against both concerns simultaneously.
- ORP is exploring virtual open houses as a strategy for educating members of the public on the WTP and the WTP mission. The virtual open house may be accessed at HanfordVitPlant.com/OpenHouse.
- Work is ongoing for the resolution of identified technical issues that halted work on the WTP in 2012. ORP recently notified DOE that resolution of T-1, Hydrogen Gas Events in Vessels, T-2, Criticality in Pulse Jet Mixer Vessels, and T-3, Hydrogen in Piping, were near resolution.
- The winner of the 2016 Grand Challenge was selected. This year, Larry Shaffer and Clinton Summers won the Grand Challenge by submitting a proposal that highlighted the construction of a system to remove the chemicals causing vapors.
- ORP is continuing to focus on promoting activities and outreach in the fields of Science, Technology, Engineering, and Math (STEM) through case studies, presentation, and science-based community events at universities.

Washington Department of Ecology

Alex Smith, Ecology's Nuclear Waste Program Manager, provided Board members with an update³ on recent Ecology efforts. Alex highlighted the following key points in her presentation:

- For the Hanford Site-Wide Permit (Rev. 8c), there will be upcoming modifications for the WTP permit and DFLAW facilities while Rev. 9 of the Site-Wide permit is prepared for review. Ecology is working with DOE to ensure that future permitting is efficiently managed and mindful of schedule needs.
- The current version on the Hanford RCRA Site-wide Permit (Rev. 8c) only includes unit-specific conditions for 13 of the 37 Operable Units. A goal for the next update to the permit (Rev. 9) is to get unit-specific conditions for all Operable Units. Updating the Site-Wide permit is an Ecology priority. Ecology has been working with the U.S. Environmental Protection Agency (EPA) Region 10 and DOE to address public comments and ensure that all necessary information is included for each of the Operable Units. Ecology hopes to have Rev. 9 out for extended public comment by December 2019.

Attachment 3: Nuclear Waste Program Agency Update, 12/7/2016 (Ecology presentation)

- Ecology reached a tentative agreement with ORP regarding TPA milestone changes for Waste Management Area C closure plans to realign TPA milestones with C Farm retrieval dates in the amended Consent Decree and with Ecology’s permitting process. The milestone changes will also allow ORP to phase Waste Management Area C closure plans and closures over time to apply lessons learned to later phases of work.

U.S. Environmental Protection Agency

Dennis Faulk, U.S. Environmental Protection Agency (EPA) Hanford Project Office Unit Manager, updated HAB members on recent EPA activities.

Key ideas covered in Dennis’ presentation included:

- The ongoing work at the PFP, 618-10 Burial Grounds, and K Basin is progressing smoothly, and workers are doing very good work to complete projects safely and on-time.
- A CERCLA Five-Year review will be released in March 2017. EPA provided DOE with minor comments on a draft of the review. It was well done, and the Board will likely want to receive an update on the review once it is released.
- TPA agencies recently worked on milestone change packages for cleanup of the Central Plateau and the 300 Area. However, remediation of the 324 Building may not be able to be completed in time to meet the updated schedule in 2019. EPA does not wish to delay the milestone for cleanup of the 324 Building and associated waste sites any further.
- The EPA Hanford Project office was established with nine full-time employees; currently there are three full-time staff. EPA may have a challenging time meeting characterization commitments due to this limited staffing. There is a lot of upcoming characterization that needs to be completed in the Central Plateau.
- Upcoming changes to Hanford contractors will likely cause further delays and loss of efficiencies in the coming years.

Board member Questions (Q), Responses (R), and Comments (C)

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

C. It may be helpful for ORP and RL to jointly implement a “One System” style approach that helps the offices coordinate their future efforts. For example, land access is a topic that RL often discusses, but ORP needs to accomplish a bulk of the work to get to that point. Additional coordination of efforts may help to ensure future tribal and public access to the Hanford Site.

R. [RL] RL and ORP do consider the overlap that exists between the work of the two offices, especially around controlled access. The offices consider a holistic look for how public access to the Hanford Reach may be accomplished in the future without adversely affecting WTP operations. A future HAB briefing could be explored if there is interest in this topic.

C. Approximately five years ago, RL hosted a series on public workshops on cleanup of the River Corridor. These meetings were very successfully run, and RL should consider revisiting the format and bringing another round of public workshops to the region, potentially on canyon remediation or Central Plateau cleanup not associated with tanks or WTP.

C. There were many excellent well-designed public engagement tools developed for the Rev. 8c update of the Hanford Site-Wide RCRA permit (e.g. “baseball cards”). TPA agencies should revisit these strategies and continue conversations with the HAB and the Public Involvement and Communications Committee as the Rev. 9 update is prepared for public review and comment.

Q. For the ongoing natural resource damage assessment—do senior trustees anticipate a return to the baseline state? What amount do senior trustees anticipate will compensate for lost use?

R. [RL] It would be very difficult to return to the full baseline, and trustees are currently working to determine the level of damage and the appropriate compensation. The CERCLA process involves first establishing a baseline, then assessing damages to natural resources through studies, and finally applying compensation. At this time, no total compensation cost is known. The December 2019 date referenced in RL’s agency update would only be compensation for pieces of the overall natural resources damage assessment.

Q. Will Bechtel operate the WTP, or will another contractor do so? Is a plan in place to have DFLAW operating while other parts of the WTP are still under construction?

R. [ORP] There is currently a proposal for DFLAW operation that would require Bechtel National, Inc. (BNI) to create an entity that will accomplish operations of the WTP. There is also a plan in place to allow for construction of the WTP and operation of DFLAW to occur simultaneously; however, that plan is not ready for public review as it is currently in negotiation with the contractor.

C. It was frustrating to hear that the schedule for remediation of the 324 Building would be delayed, in part due to the switch from WCH to CHPRC. CHPRC was involved in the cleanup analysis; therefore, the contractor should not need to reinvent or re-tool the existing plans for cleanup.

R. [RL] RL is hopeful that CHPRC can begin to implement cleanup efforts at the 324 Building as soon as possible, and the office will do everything possible to finalize remediation of the 324 Building by the TPA milestone.

Q. In addition to removing tank waste from DST AY-102, will ORP also look into what caused the tank to leak? Would these studies occur before or after waste is removed from the tank’s annulus?

R. [ORP] Yes—this analysis has been ongoing throughout the retrieval process. There are a number of options that ORP will explore once AY-102 is emptied, including considering whether or not the tank could potentially be repaired and placed back into service. This is not a likely scenario.

Q. Why has Savannah River National Laboratory (SRNL) established an office at Hanford?

R. [ORP] The SRNL has complementary set of core competencies to the Pacific Northwest National Lab; they are not competitors of one another. The assistance that SRNL provides to the Hanford Site means that the lab maintains a full-time presence at Hanford. The local office makes it easier for SRNL staff to conduct business.

C. The ultrasound technology that is used to determine the condition of Hanford tanks could potentially be used at WESF to determine the integrity of the concrete pools where cesium and strontium capsules are stored.

R. [RL] RL's current focus at WESF is to move cesium and strontium into dry storage as soon as possible. Mathematic modelling of the concrete pools has determined, with a high degree of confidence, that the pools will retain their integrity for the next ten years. After ten years, the models predict that the certainty decreases. An ultrasound assessment of the concrete has not yet been done. Following removal of the capsules, study of the pools may be able to provide valuable information.

Q. What percentage of Hanford contamination exists in the Central Plateau area?

R. [RL] It is important that everyone has a strong understanding of how many waste sites exist in the Central Plateau areas, as well as how much Transuranic (TRU) Waste there is. There is a lot of information available, and RL can arrange for future HAB briefings in order to begin a dialogue on this important topic.

Q. There has been much discussion about the aging work force and Hanford. What strategies are RL and ORP exploring to bring skilled new workers to Hanford?

R. [ORP] DOE is working to ensure that skilled technical workers know that Hanford is a possibility through internships, STEM outreach events, and coordination with universities.

R. [RL] Building trade employees are also an important component of Hanford work, and DOE is working to attract new potential employees through apprenticeships.

C. The RCRA permitting process is streamlined as it is, and there is a fear that a streamlined package will move to the public in an incomplete form. This can cause additional delay. Any developed packages should be complete, and if there are disputes, they can be resolved later. The most important thing that the agencies can do is get the permit out quickly.

R. [Ecology] Ecology's goal with the RCRA Site-Wide Permit update is to release a regulatorily and legally defensible permit. It is not a simple or straightforward process. Ecology is looking for ways to be more clear and efficient within the permit, and Ecology is not looking to sacrifice any integrity of the RCRA process or of the permit itself.

C. It is very important to uphold the recently agreed upon milestone changes. The public needs to be able to rely on the commitments of the TPA agencies.

Q. What is the relationship between needed characterization work in the Central Plateau and the potential for missed TPA milestones?

R. [EPA] There is a tremendous amount of characterization that needs to be done in the Central Plateau. In the WA-1 Operable Unit, for example, there are approximately 150 sites that need to be characterized; compare this number to the 15-20 waste sites within a typical River Corridor operable unit. DOE has not yet begun characterization work at the WA-1 Operable Unit, and it likely should have begun if it were to be completed by the current TPA milestone. EPA has no intention of delaying this characterization milestone any further.

R. [RL] There is a tremendous amount of necessary characterization in the Central Plateau. RL is fully committed to accomplishing this characterization as soon as possible once RL is provided with the necessary funding.

Q. There have been recent news articles on the National Institute for Occupational Safety and Health (NIOSH) tank vapor report. Local legislators issued a letter regarding this. How will ORP respond?

R. [ORP] The NIOSH report only just arrived, and ORP is currently in the process of transferring it to WRPS. The findings of the NIOSH report are not surprising, and the report will be combined with the Savannah River Tank Vapor Report under a single umbrella. ORP is currently working with WRPS to examine technologies that will be implemented in Phase II of the Implementation Plan.

C. When streamlining permits, it is important to determine what the compliance is. There should be no reason for contractors to do a compliance matrix for a permit.

C. It sounds like DOE Office of Environmental Management (EM) is being directed to spend money on developing a container for deep borehole deposition. Many HAB members do not believe that this is a realistic disposition strategy, and the Board could potentially offer advice to EM on this matter.

R. [RL] The Secretary of Energy has been very interested in exploring the possibility of deep borehole disposition. The new administration may not continue along this pathway. RL has been tracking this effort, and the office does not believe that it will impact RL's ability to get WESF cesium and strontium capsules into dry storage.

HAB members thanked agency representatives for their updates and their responses.

Advice on Board Budget and Funding

Bob Suyama, Benton County, introduced draft advice on the HAB's budget and level of funding⁴. Bob noted that the overall goal of the advice was to highlight the Board's important role and to demonstrate that the HAB is not adequately funded to accomplish necessary work. Bob noted that advice outlines that

Attachment 4: Hanford Advisory Board Draft Advice on Declining Budget

the HAB's budget over the past ten years has remained steady, which equates to a steadily decreasing budget once inflation is accounted for. Bob stated that the Board would need approximately \$590K in the coming fiscal year in order to meet commitments.

Susan Leckband, League of Women Voters and HAB vice-chair, underscored that the HAB's declining budget limits the Board's ability to hold regional meetings. She highlighted these meetings outside of the Tri-City Area as important methods of both educating the public and gathering diverse public perspectives during meetings.

Agency and Regulator Perspectives

Dawn MacDonald, ORP, said that funding decisions for the Board are often decided at DOE headquarters. She noted that this added an additional challenge to increasing the Board's budget.

Kyle Rankin, RL, thanked the Board for the advice. He noted that RL was willing to support one regional HAB meeting in the coming year.

Dennis Faulk, EPA, said that the advice was very well written. He underscored the virtues of regional meetings and recognized that they help members of the HAB connect with the public as well as out of town decision-makers.

Alex Smith, Ecology, noted support for having adequate HAB funding, and she noted the importance of an educated, regional public as cleanup efforts move towards the Central Plateau and WTP operations.

Board member Questions (Q), Responses (R), and Comments (C)

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

Q. There is an attachment connected to the draft advice. Is this intended to be transferred with the advice?

R. Yes. DOE requested that numbers be incorporated into the advice to demonstrate the budget need. The draft advice will need to be updated so that the advice background references the attachment. The advice points themselves may also need to direct DOE to the attachment highlighting the associated dollar amount.

C. The terminology "woefully inadequate" in the second paragraph should be replaced with the actual amount of money that the Board feels that it needs.

C. The second advice bullet presents problems, as the Board has no demonstrated record of bringing the regional public to meetings. Attention should be focused on the first bullet instead.

R. At past regional Board meetings, there is often the same level of public participation as there is at meetings held in Richland. If regional meetings are an important priority for the Board, then members of the Public Involvement and Communication Committee (PIC) need to work with DOE to plan meetings that the public will attend.

R. The Board's impact cannot be measured only by the number of people who sit in the room at Board meetings. The Board often holds evening sessions or tutorials to reach out to new audiences.

C. The advice points could be condensed into a single bullet to increase clarity and recommend that the Board hold at least five full Board meetings per year, with one of them being a meeting outside of the Tri-Cities.

C. The original draft advice calls for two Board meetings per year in cities other than those that are immediately adjacent to the Hanford Site.

C. Requesting two regional meetings is not called for in the advice. Requesting one out-of-town meeting is sufficient. Asking for two meetings is too much.

C. The advice and attachment can be updated so that it reflects four Board meetings in areas directly adjacent to the Hanford Site and one regional meeting per year.

C. Travelling increases the cost of Board meetings by approximately \$17,000 due to increased Board member travel costs.

C. Note that the advice is requesting a budget that could allow the Board to have two out of town meetings. This would not necessarily lock the Board into two meetings.

C. To avoid locking the Board into a request of meetings, the advice point could potentially state that the Board requests adequate budget to hold a “minimum of one meeting” or “at least one meeting” per year outside of the Tri-Cities.

C. [EPA] Regional Board meetings often incorporate an evening session, which is of more interest to the public. Board meetings themselves are often not engaging venues for members of the public.

C. Given that the federal government will likely run on a Continuing Resolution until April, the Board should consider how that will affect the budget and that the Board tentatively planned a meeting in Hood River, Oregon in March 2017.

R. The draft advice would be for FY 2018 funding, so this advice would be for the following FY.

C. [ORP] Since the DOE budget cycle extends two years into the future, the draft advice should also reference FY 2019.

C. Is it a FACA requirement that Boards meet six times per year?

R. No, it is not a FACA requirement.. Other EM Site-Specific Advisory Boards (SSAB) have very different practices and may meet six to twelve meetings per year. For example, meetings for other SSABs are often much smaller and members are largely local. The HAB is a large Board that advises three agencies, operates by consensus, and brings members together from across the Northwest.

Following the incorporation of agreed upon revisions and minor wording changes, the Board approved the advice. Members agreed to send the final advice to the RL Manager.

Advice on the State of the Site Meeting

Liz Mattson, Hanford Challenge, introduced draft advice to the Board on State of the Site meetings⁵, responding to TPA agency plans to replace in-person State of the Site meetings with webinars. She noted that the advice does not presuppose particular State of the Site meeting formats or strategies, but she also highlighted that issue managers for the advice felt that in-person exchanges were very important and could not be wholly replaced by digital meetings.

Agency Response

Kyle Rankin, RL, thanked issue managers for their work in authoring the advice.

Yvonne Levardi, ORP, recognized that DOE is interested in doing State of the Site meetings in a way that everyone is comfortable with. She noted that she has had past success using webinars to reach new audiences. Yvonne recognized that ORP is willing to consider alternative strategies and is open to in-person meetings; however, she stated that additional conversations may be needed to determine State of the Site meetings strategies that could work for everyone.

Alex Smith, Ecology, noted that a State of the Site webinar could potentially be a good compromise for reaching more people. Alex said that Ecology would be willing to support in-person State of the Site meetings if TPA agencies determined that was the best option.

Dennis Faulk, EPA, noted that he is a fan of State of the Site meetings, and he credited them with saving the Hanford groundwater program.

Board member Questions (Q), Responses (R), and Comments (C)

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

C. Webinars can be important tools for reaching more people; however, they should not solely replace in-person State of the Site meetings. HAB members appreciate DOE's continued dedication to involve members of the regional public, it is, however, important that future Hanford regional meetings incorporate both digital and in-person components, not one at the expense of the other.

C. TPA agencies are very committed to and enthusiastic about outreach. There are some well-documented issues with regional State of the Site meetings as they have been held in the past, however, and the Board should hold on adopting advice on these meetings until issue managers can discuss alternative meeting strategies and incorporate them into advice.

R. There is value in keeping the advice general, as opposed to recommending a suite of meeting strategies. PIC members discussed this advice at a recent committee meeting and agreed that it

Attachment 5: Hanford Advisory Board Draft Advice on In Person State of the Site Meetings and Technical Webinars

was best to keep the recommendations high-level and non-prescriptive. The primary goal of the advice is to recognize the value of face-to-face meetings.

C. The State of the Site meetings are intended to be a continuum—a yearly progress report of work at the Hanford Site. The advice could potentially recommend a change in the name of the meetings, as “State of the Site” has some negative connotations associated with it to some.

R. There are some “State of the Site” related milestones that are upcoming in Hanford cleanup (e.g. River Corridor cleanup), so the meeting name may be increasingly more relevant.

R. [ORP] The idea of rebranding State of the Site meetings has potential benefits, as there is some negative historical weight that is attached to these meetings. Rebranding could potentially provide an opportunity limiting some of this past negative energy.

C. If there is concern about incorporating the State of the Site terminology in the advice there are ways that we can potentially manage the language within the title and the advice and hold additional discussions with TPA agency representatives at upcoming PIC meetings. It is important to get the advice passed at this Board meeting.

C. In the future, Board meetings could potentially be combined with regional State of the Site or DOE budget meetings. This may help to better engage the regional public while also imparting efficiencies into meeting planning.

The Board approved the advice. Members agreed to send the final advice to local TPA agency managers.

Update on the Waste Isolation Pilot Plant

Frank Marcinowski, DOE Associate Principle Deputy Assistant Secretary for Regulatory and Policy Affairs, provided the Board with an update⁶ on the status of New Mexico’s WIPP.

Board member Questions (Q), Responses (R), and Comments (C)

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

Q. Are there any packages that are currently at Waste Control Specialists in Texas that may have the same contents as the barrel that caused the initial issues at WIPP in 2014?

R. [DOE] A fair number of drums are not of the same pedigree as the drum that reacted in the WIPP facility. These can be shipped to WIPP and emplaced once the facility re-opens. There are some waste drums (approximately 80) that may be of the same pedigree as the drum that reacted in the facility, however, and these have a separate disposal cell in the WIPP facility. They are covered in sand and they are currently being stored in a safe configuration. This group of waste

Attachment 6: WIPP Status Update, 12/8/2016 (DOE-EM presentation)

will likely require an additional treatment before final displacement. Los Alamos National Lab has a strategy in place as to how they will treat this waste, and the same strategies will likely be employed at Waste Control Specialists. DOE owes the state of Texas a plan by December 2017.

C. What was behind DOE's thinking around keeping Panel 7 open, as opposed to closing it off? What is DOE's estimate for the tradeoff for keeping Panel 7 open?

R. [DOE] That represents quite a bit of the disposal capacity that WIPP still has available. The amount of contamination that this part of WIPP has is very low; and large portions of the contaminated area have already been decontaminated. Most of the plutonium and americium has been affixed within the salt, so it does not represent an airborne hazard. Identified worker risk is low.

Q. How long do you anticipate being able to work emplacing waste in the already mined out areas of WIPP?

R. [DOE] There is approximately two to three years of disposal capacity remaining in the already mined out areas of WIPP.

Q. Any change in waste acceptance criteria will impact the Sites shipping waste. How much of a delay is coming into play regarding recertifying waste?

R. [DOE] There is already waste that has been recertified based on the new criteria and that is ready to emplace in WIPP.

Q. What is the closure process once cells are closed?

R. [DOE] There are two entrances to each panel. To close a panel, workers will put up metal bulkheads in the openings to seal them off. The salt will then creep around the waste and envelop the drums. The bulkheads control and volatile organic compounds while the salt emplaces the waste.

Q. One of the major hazards at WIPP is the potential for a roof collapse. Is there any reason to continue mining rooms when there is not any waste to be placed in it?

R. [DOE] There are eight panels that are planned. Double this number is necessary to deal with the anticipated amount of TRU waste from the sites. There are an additional 20,000 containers that are already packaged and certified for WIPP. It takes approximately two years to mine a new panel.

Q. An additional 22,000 to 23,000 additional drums of TRU waste from Savannah River may go to WIPP. Can the facility absorb this additional influx of waste? Are there any other sources of unanticipated waste that may surface for disposal?

R. [DOE] The Savannah River waste is probably the largest influx of TRU waste, but there may be additional small pools of 20-30 drums from various Decontamination and Decommissioning of Nuclear Facilities around the country.

Q. Is DOE learning anything new about the movement or performance of the mine during this period of downtime?

R. [DOE] There are new things that crews are discovering. There are sensors that measure the movement of the salt. The movement of salt in Room 4 in Panel 7 was faster than DOE anticipated. In general, however, the mine is performing as expected.

Q. Does the current Land Withdrawal Act provide DOE with enough land to expand WIPP to the degree needed?

R. [DOE] There is enough land provided in the Land Withdrawal Act. To expand, WIPP will likely require a permit modification. However, there is likely no additional legislative action that will be required.

Frank closed by noting that DOE Waste Management Order 435 will be a topic of conversation as the new administration begins.

Board members thanked Frank for his presentation and perspectives.

Washington Closure Hanford Work on the River Corridor

Scott Sax, WCH, provided the Board with an overview⁷ of the work that WCH has been involved in over the past decade. Scott highlighted the unique nature of the defined scope of the River Corridor Closure Project contract and provided the HAB with an overview of the progress and accomplishments of WCH over the tenure of their contract.

Board member Questions (Q), Responses (R), and Comments (C)

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

C. Is WCH cataloguing interesting cleanup stories (e.g. unexpected materials found while excavating burial grounds and trenches, etc.) for the sake of posterity?

R. [WCH] These stories are documented in closure documentation to ensure that sites were effectively remediated and to ensure that waste was disposed of in the appropriate places. There may not be a comprehensive list of records anywhere, and they are likely available to the public.

Q. The Beryllium Awareness Group was keenly interested in the 300 Area, as many exposures likely happened there. There were WCH employees who were affected by exposure to beryllium. How did that information flow up to WCH leadership?

Attachment 7: Washington Closure Hanford: Cleanup Progress Along the River Corridor, 12/2016 (WCH presentation)

R. [WCH] That information did flow up to management. It was challenging to determine the impacts and effects of beryllium exposure. In the past five years, WCH has spent \$40 million on the Beryllium Program to ensure that workers were safe. Communication with workers was very important throughout the work, and WCH was committed.

Q. What expectation did WCH make around River Corridor access?

R. [WCH] The River Corridor area is unlike any other place in Washington—the remediated areas are very pristine in comparison to nearby desert. It represents a tremendous opportunity for public and tribal access.

C. WCH had exceptional attitudes and performance throughout its work. The work that WCH accomplished was done extremely well throughout.

R. [WCH] WCH really worked to engage workers in its work. Employees received incentive checks if work was completed safely and efficiently. All levels of employees were engaged in streamlining work and taking ownership of their tasks. It was helpful from an organizational, cost, and environmental perspectives.

Q. How are lessons learned from the WCH contract being applied to other contracts that have some ongoing issues?

R. [WCH] WCH encouraged leadership to write down lessons and share them with others in order to learn from successes and failures. WCH is sharing closeout practices with other contractors on site. WCH is also putting approximately a third of closeout resources towards authoring a lessons-learned document.

C. When WCH finishes closeout documentation and lessons learned, it would be helpful if the HAB could see that information. It may help to better inform future policy advice.

Q. How did WCH prepare for the contract closeout?

R. [WCH] It is very costly to close out a contract, and WCH ran the closeout like a project with a person in charge of the process. WCH is also retaining project managers to ensure that there is always someone who can answer questions as they arrive.

C. It seems like some contractors and their workforce have a fear of cleanup ending, as it means that jobs will end. The WCH model of taking away that fear is important and vital to future successes—hopefully this will be a concept that other contractors can learn from.

Board members thanked Scott for his presentation and for WCH's work in remediating contamination in the River Corridor.

Board and Committee Reports

Board and committee leadership provided report-out on ongoing efforts and anticipated future work and products.

Health, Safety, and Environmental Protection Committee

Becky Holland, Hanford Atomic Metal Trades Council and Health, Safety, and Environmental Protection Committee (HSEP) chair, noted that she would work to coordinate and track issues with HSEP members in the coming months. Richard Bloom, HSEP vice-chair, was hopeful that the committee could play a role in reviewing the Hanford RCRA Site-Wide Permit as it becomes available.

Richard noted that the HSEP committee would tentatively hold a committee call in December to discuss potential follow-up to HAB Advice #286, Transportation Infrastructure Updates Safety Considerations, and safety basis.

Budgets and Contracts Committee

Don Bouchey, Tri-City Development Council and Budgets and Contracts Committee (BCC) vice chair, said that the BCC recently worked to author a letter on Board Budget Priorities (see Board Business) and to review the DOE response to HAB Advice #289, Master Acquisition Plan. Don believed that BCC members would hold a committee call in early 2017 when a timeline for the release of DOE's Master Acquisition Plan was more clear.

Public Involvement and Communications Committee

Liz Mattson, Hanford Challenge and PIC chair, said that the committee recently met to discuss minor edits to the TPA Public Involvement Plan, the Annual TPA Public Involvement Survey, Public Involvement Principles, and the draft State of the Site advice.

Liz noted that PIC anticipates that it will meet on February 28, 2017, tentatively in Hood River, Oregon, prior to the March Board meeting. To plan for this meeting, Liz expected that committee members would hold a call in January 2017.

Liz also noted that there is the potential for an issue manager group to meet in January and discuss potential efficiencies for upcoming DFLAW permits and associated public comments.

River and Plateau Committee

Pam Larsen, City of Richland and River and Plateau Committee (RAP) chair, said that RAP members have reviewed progress at the PFP, 618-10 Burial Grounds, and the 300-FF-5 uranium sequestration project.

RAP plans to meet in January 2017, and Pam noted that tentative meeting topics include the SW-2 Burial Grounds, an update on K Basin Sludge efforts, and an update on PFP demolition efforts. Pam also noted that in February 2017, the RAP three-month work plan identifies that committee members will meet

jointly with the Tank Waste Committee (TWC) to begin discussing and framing the topic of critical infrastructure updates.

Tank Waste Committee

Bob Suyama, Benton County and TWC chair, highlighted a recent tour that TWC members took as well as a “dry run” presentation on the Low-Activity Waste Pretreatment System that ORP previewed with the committee in advance of an upcoming public meeting.

Bob noted that the next TWC meeting will be held in January 2017. He highlighted that the committee would tentatively plan to discuss the Waste Management Area C Performance Assessment and the TPA milestone M45 schedule as well as receive an update on AY-102 retrieval efforts.

Executive Issues Committee

Steve Hudson, Hanford Watch, said that the Executive Issues Committee (EIC) meets monthly to ensure that HAB meetings are coordinated effectively and to strategize effective communication strategies. He said that EIC members examine the need for different ways for Board members to provide feedback to the TPA agencies (such as white papers, letters, and sounding boards). Steve thanked the committee chairs and vice-chairs for their effort.

Steve anticipated that EIC members would convene for a call in December 2016 to plan for upcoming committee meetings.

Environmental Management Site-Specific Advisory Board

Steve noted that there was a document available on the back table that would help serve as a guide for the upcoming administration transition. He noted that an administration transition letter from the EM SSAB chairs⁸ was included in the Board packets, and he encouraged members to review it.

Board member questions and responses

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

C. The Board was not asked to weigh in on the EM SSAB letter, however, there is some Board concern that these kinds of documents move out with the signature of the HAB chair but without review from the HAB membership. In this case, the EM SSAB letter included comments regarding radioactive waste transportation that focused on frivolous issues.

Public Comment

No public comment was provided.

Attachment 8: The Environmental Site Specific Advisory Board Chairs Transition Paper

Board Business

Board member questions (Q), comments (C), and responses (R) below reflect individual statements, as well as a synthesis where there were similar perspectives provided.

HAB Fiscal Year 2017 Calendar

Board members adopted the provisionally adopted FY 2017 HAB Calendar⁹ following the incorporation of minor changes in the placeholder dates for February 2017 committee meetings.

Board members reiterated that the March 2017 Board meeting should be held in Hood River, Oregon. As such, the first day of the Board meeting would incorporate an evening meeting/session.

HAB Leadership Nominations

Following introductions by the nominating committee, the Board made a formal recommendation to the TPA agencies that Susan Leckband serve as Board chair for a two-year term. The Board also selected Shelley Cimon and Pam Larsen for two-year terms as vice-chair and national liaison, respectively.

Letter on Board Budget Priorities

Jerry Peltier, City of West Richland, introduced a draft letter on Board budget priorities¹⁰ to the Board. Jerry noted that the Board felt it was important to resubmit the Budget priorities included in HAB Advice #288, FY 2017 budget and FY 2018 input request, to reiterate the HAB's budget priorities to the incoming executive administration and transition team.

C. [EPA] The meaning of the letter is a bit unclear in places. The letter in part takes exception to DOE recognizing that the Board's priorities are in line with their own. This is not the case, and if that is a purpose of the letter, it should be reiterated more clearly.

C. Anyone who knows Hanford would be confused by the first bullet, as Hanford cannot ship TRU waste to WIPP until it is packaged and ready. The meaning of the point would be more clear if the bullet were split into two separate, complementary points.

Q. Are the bullets ranked in order of priority, or are they random?

R. No, they are not in priority order. It may be beneficial to mention that they are.

C. Are the bullet points noting Board budget priorities that differ from DOE priorities in rank or in inclusion (e.g. are these priorities completely missing from DOE's list). This should be made more clear in the wording of the letter.

R. [EPA] There is a mix of both. TRU waste shipments, for example, is something that DOE does not control. This is a challenging point to lead with if the letter's goal is to influence the new

Attachment 9: Hanford Advisory Board Provisionally Adopted Fiscal Year 2017 Calendar (September 2016)

Attachment 10: Hanford Advisory Board Draft Letter on Budget Priorities

administration. Building new tanks, however, is not a DOE priority at all. The real points that the bullets in the letter are working to underscore that DOE misrepresented the Board and DOE's agreement on priorities. The bullets as currently conceptualized do not get that point across.

R. In some cases (e.g. moving cesium and strontium capsules to dry storage, remediation of the 324 Building), Board and DOE priorities are the same; however, the timelines for completing these priorities are different.

R. Hanford is at the bottom of the list for storage of TRU waste to WIPP in large part because there has not been an indication from Hanford that it wishes to move up in the shipment queue.

C. In addition to HAB Advice #288, the DOE response to HAB Advice #288 should be attached and referenced in the letter.

Board members approved that the letter be sent to the RL and ORP Managers.

Letter on Central Plateau Principles/200-WA-1 Operable Unit Work Plan

Dale Engstrom, Oregon Department of Energy, provided Board members with an overview of the draft HAB letter on cleanup decision in the Central Plateau¹¹, specifically those included in the 200-WA-1 Operable Unit Work Plan. Dale reminded Board members that the Board provided TPA agencies with HAB Advice #283 on the Central Plateau Principles, a set of guidelines that TPA agencies agreed upon and would be used as a basis for Central Plateau cleanup decisions. Dale noted that the letter reiterated some ideas included within Advice #283 as TPA agencies worked to negotiate the 200-WA-1 Operable Unit Work Plan.

C. [EPA] The timing for this letter is off, as the Board is commenting on a Work Plan that it has not yet seen. This letter seems like it may be more applicable once the Work Plan has been released and the Board has had the opportunity to review it and then highlight specific feedback using HAB Advice #283 as a guide. The 200-WA-1 Work Plan will likely be transferred to EPA within the next month, and the ROD for the 200-WA-1 Operable Unit will likely not be finalized for many years.

C. [Ecology] Ecology approved two Remedial Investigation/Feasibility Study (RI/FS) Work Plans for the Central Plateau—one for the 200-SW-2 Operable Unit Work Plan (the pre-1970 Burial Ground) and the other for the 200-DV-1 (investigation work plan for the deep vadose zone). Ecology did consider HAB Advice #283 when authoring these work plans, and the Board can review these to see how Ecology incorporated HAB ideas.

C. As the 200-WA-1 Operable Unit Work Plan is already finalized, TPA agency representatives should be able to provide the Board with a list of HAB advice incorporated into it. Work Plans on the Central Plateau will determine how much characterization will occur in advance of the RI/FS plans, and if the Board feels that increased characterization in the 200-WA-1 Operable Unit may be necessary, then the opportunity for comment is now while the Work Plan is still in negotiation.

Attachment 11: Hanford Advisory Board Draft Letter on Cleanup Decisions in the Central Plateau

C. [EPA] The Board provided TPA agencies with HAB Advice #283. This letter feels like the Board is preemptively stating that the TPA agencies did not consider the HAB's advice on Central Plateau Cleanup Principles.

C. This letter could address the TPA agency response to HAB Advice #283; however, it is not. Therefore, that makes the purpose of the letter unclear. There is no time sensitive reason to pass this letter today. The letter could potentially return to RAP for further discussion. Once the 200-WA-1 Operable Unit Work Plan is released and once issue managers review the 200-SW-2 and the 200-DV-1 RI/FS Work Plans.

C. Conversely, the Board should send this letter to demonstrate that this is an important matter to the Board. 200-WA-1 has many waste sites within it, and the letter emphasizes several very important points, such as promoting pre-characterization and dissuading the analogous sites approach.

Q. Can TPA agencies reassure the Board that it could be possible to update the Work Plan at a future date.

R. [EPA] Yes, this is a long process, there are more work plans, and EPA is open to revising the work plan.

Board members determined that the letter on Central Plateau Principles incorporated in the 200-WA-1 Operable Unit Work Plan should be sent back to the RAP committee for further review and discussion. Board members felt that the letter could potentially be revisited and updated once the 200-WA-1 Operable Unit Work Plan was released by DOE and reviewed by the committee, along with the RI/FS Work Plans for the 200-SW-2 and the 200-DV-1 Operable Units.

Preliminary March 2017 Board meeting topics

Cathy reviewed the following tentative meeting topics for the March 2017 Board meeting, tentatively scheduled to occur in Hood River, Oregon:

- TPA agency program reports
- Discussion of potential RAP product on Central Plateau Principles/ WA-1 Operable Unit Work Plan
- Discussion of upcoming CERCLA five-year review
- Updates of Ecology's permitting activities (specifically updates to the WTP permit)
- HAB Committee reports
- Inclusion of an evening session of interest to the Hood River community

Closing Remarks

Susan Leckband, vice chair, thanked Board members for their attendance, thoughts, and decisions. The meeting was adjourned.

Attachments

Attachment 1: Richland Operations Office 2020 Vision, 12/7/2016 (RL presentation)

Attachment 2: Agency Update, 12/7/2016 (ORP presentation)

Attachment 3: Nuclear Waste Program Agency Update, 12/7/2016 (Ecology presentation)

Attachment 4: Hanford Advisory Board Draft Advice on Declining Budget

Attachment 5: Hanford Advisory Board Draft Advice on In Person State of the Site Meetings and Technical Webinars

Attachment 6: WIPP Status Update, 12/8/2016 (DOE-EM presentation)

Attachment 7: Washington Closure Hanford: Cleanup Progress Along the River Corridor, 12/2016 (WCH presentation)

Attachment 8: The Environmental Site Specific Advisory Board Chairs Transition Paper

Attachment 9: Hanford Advisory Board Provisionally Adopted Fiscal Year 2017 Calendar (September 2016)

Attachment 10: Hanford Advisory Board Draft Letter on Budget Priorities

Attachment 11: Hanford Advisory Board Draft Letter on Cleanup Decisions in the Central Plateau

Attendees

HAB MEMBERS AND ALTERNATES

Antone Brooks, Member	Tom Galioto, Member	Kristen McNall, Member (phone)
Gabe Bohnee, Member	Becky Holland, Member	Ken Niles, Member (phone)
Don Bouchey, Member	Steve Hudson, Member	Jerry Peltier, Member
Jan Catrell, Member	Emmitt Jackson, Member	Bob Parks, Member
Shelley Cimon, Member	Alex Klementiev, Member	Bob Suyama, Member
Alissa Cordner, Member	Pam Larsen, Member	Gene Van Liew, Member
Robert Davis, Member	Susan Leckband, Member	
Sam Dechter, Member	Liz Mattson, Member	
David Bernhard, Alternate	Charles Johnson, Alternate	Alex Nazarali, Alternate
Richard Bloom, Alternate	Mike Korenko, Alternate	Ed Pacheco, Alternate
Mike Bosse, Alternate	Phil Lemley, Alternate	Daniel Solitz, Alternate (phone)
Amoret Bunn, Alternate	Larry Lockrem, Alternate	Drew Thomas, Alternate
Gary Busselman, Alternate	Rudy Mendoza, Alternate	Jean Vanni, Alternate
Shannon Cram, Alternate	Emmett Moore, Alternate	Helen Wheatley, Alternate (phone)
Dale Engstrom, Alternate (phone)	Stephen Metzger, Alternate	Steve Wiegman, Alternate

AGENCY, CONTRACTOR, AND SUPPORT STAFF

Mark Heeter, RL	Dennis Faulk, EPA	Bruce Ford, CH2M
Kristen Holmes, RL	Emy Laija, EPA	Theresa Bergman, CHPRC
Kyle Rankin, RL	Randy Bradbury, Ecology	Jennifer Copeland, CHPRC
Doug Shoop, RL	John Price, Ecology	Tammy Honnes, CHPRC
Yvonne Levardi, ORP	Alex Smith, Ecology	Sonya Johnson, CHPRC
Dawn MacDonald, ORP	Nina Menard, Ecology	Edward McCarthy, CHPRC
Kevin Smith, ORP	Ginger Wireman, Ecology	David Gutowski, DNFSB
Frank Marcinowski, HQ (phone)	Earl Fordham, WDOH	Sandy Rock, HPMC (phone)
Alex Teimouri, EM	Tom Rodgers, WDOH	Stephanie Brasher, MSA
		Dana Gribble, MSA
		Dru Butler, MSA
		Scott Dave, MSA
		Dieter Bohrmann, North Wind/ ORP
		Brian Mathis, SN3
		Kelsey Shank, SN3
		Scott Sax, WCH
		Peter Bengtson, WCH/WRPS
		Mark McKenna, WRPS
		Tammie Gilley, EnviroIssues
		Cathy McCague, EnviroIssues
		Brett Watson, EnviroIssues

MEMBERS OF THE PUBLIC

Tiffany Albin	Iain Jensen, WEC	Jennie Stults
Michael Bosse, CWBCT	Dan Leone (phone)	Rob Skeen, CTUIR (phone)
Annette Cary, Tri-City Herald	Patrick Mills, CTUIR (phone)	
Shintaro Ito, PNNL	Joy Shoemake, Jacobs	

List of Acronyms

BCC – Budgets and Contracts Committee (HAB)

Board – Hanford Advisory Board

BNI – Bechtel National, Inc.

CERCLA – Comprehensive Environmental
Response, Compensation, and Liability Act

CHPRC – CH2M Hill Plateau Remediation Contract

DOE – U.S. Department of Energy

Ecology – Washington Department of Ecology

EIC – Executive Issues Committee (HAB)

EM – (DOE) Office of Environmental Management

EPA – U.S. Environmental Protection Agency

ERDF – Environmental Restoration Disposal Facility

FACA – Federal Advisory Committee Act

FY – Fiscal Year

HAB – Hanford Advisory Board

HSEP – Health, Safety, and Environmental
Protection Committee (HAB)

ORP – DOE Office of River Protection

PFP – Plutonium Finishing Plant

PIC – Public Involvement and Communications
Committee (HAB)

RAP – River and Plateau Committee (HAB)

RCRA – Resource Conservation and Recovery Act

RI/FS – Remedial Investigation/Feasibility Study

RL – DOE Richland Operations Office

ROD – Record of Decision

SRNL – Savannah River National Lab

SSAB – Environmental Management Site-Specific
Advisory Board

SST – Single Shell Tanks

STEM – Science, Technology, Engineering, and
Math

TPA – Tri-Party Agreement

TRU – Transuranic [Waste]

TWC – Tank Waste Committee (HAB)

VPU – Vertical Pipe Unit

WCH – Washington Closure Hanford

WIPP – Waste Isolation Pilot Plant (New Mexico)

WRPS – Washington River Protection Solutions,
LLC

WTP – Waste Treatment and Immobilization Plant