DRAFT Meeting Minutes

HANFORD ADVISORY BOARD (HAB, Board)
Committee of the Whole (COTW)
March 7, 2023
In-Person Meeting with Virtual Component

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

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Opening

Gary Younger, US Department of Energy (DOE), serving in lieu of the Deputy Designated Federal Officer (DDFO), opened the meeting in accordance with the Federal Advisory Committee Act (FACA).

Ruth Nicholson, HAB Facilitator, welcomed meeting participants. She provided an administrative review of the meeting location and notified participants that the meeting was being recorded. She explained that the meeting would be in a workshop format and involve small group work over the lunch break. The goal of the day's activities was to recommend what committees that HAB wanted to form for fiscal year (FY) 2024.

Susan Coleman, Public at Large and HAB Chair, reviewed the meeting ground rules and the agenda. She asked that participants voice their questions and engage in the discussions and activities.

Overview of Operations Workgroup Activities

Tom Sicilia, Oregon Department of Energy, provided an overview of the Operations Workgroup composition and activities. He explained that it was chartered as a collaborative group consisting of HAB members, Tri-Party Agreement (TPA) agency representatives, and facilitation. The HAB members on the Operations Workgroup included:

- Chris Sutton, Public At Large
- Jan Catrell, Washington League of Women Voters
- Rebecca Holland, Non-Union, Non-Management Employees
- Susan Coleman
- Tom Sicilia

The goal of the group was to ensure that all parties knew and agreed on the HAB's processes, take lessons learned from pandemic-era difficulties to streamline those HAB's processes, and find areas for improvement in HAB operations. He stated that the group also identified potential improvements in areas such as the agenda development process and Board member engagement. The changes in FY23 Board member orientation were a result of the group's recommendations being enacted. The group also looked at the HAB's governance documents, its defined scope, and its organization.

He noted that the group was also working to update the HAB's operating documents, as each of the Environmental Management Site-Specific Advisory Board (EMSSAB) committees were directed to update their operating ground rules (or equivalent) by the end of FY23 for submission and approval. He expected that the workgroup would be able to show the results of that effort soon.

Overall, he stated, the workgroup was looking to create a structure in which all Board members could be informed and engaged to effectively collaborate with the TPA agencies.

TPA Agency Perspectives

Ryan Miller, Washington State Department of Ecology (Ecology), had little to add, having seen the matter discussed with several of the HAB's committees over the prior months. He appreciated the opportunity to work through the process with the Board.

Dave Einan, US Environmental Protection Agency (EPA), felt that purpose and goals were stated well. He stated that his goal was to have a board that worked well and worked well together with the TPA agencies. He hoped it would have clear direction without needing to "stumble over" questions that it encountered in its operations. He looked forward to having a "vibrant" and functioning Board. He felt that a lot of progress was made toward that goal.

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Mike Berkenbile, DOE and DDFO, felt that the goals and activities were stated well. He expected that HAB members that worked with its operating and guiding documents would likely agree that there were opportunities to improve those documents. He stated that, over the previous few months, he learned that there were many members that did not know the content of those documents. He felt that it was fortunate, from a timeliness perspective, that the citizens' advisory boards were being asked to update such documents.

Mike felt that the Operations Workgroup had done good work, and he appreciated the opportunity to "build bridges." He stated that the collaboration was valuable to DOE. He noted that there was a lot of work accomplished by the group, not all of which was reflected in the meeting.

Board Questions and Discussion

Rob Davis, City of Pasco, was glad to hear that the efforts would result in better communication and collaboration. He asked if the workgroup activities would continue into the future. Tom Sicilia explained that the workgroup was not intended to continue indefinitely as it had established goals with timelines. Were there a need for similar work in the future, a new group could be chartered.

Pam Larsen, Benton County, noted concerns about the "resource teams" concept that was presented in previous meetings. Ruth Nicholson explained that the day's workshop would take a "step back," before that concept was formed. The COTW participants would have the opportunity to determine if that concept would be the best path forward or find a new solution.

Jan Catrell felt that the work progressed as well as it had in part due to the TPA agency management presence, ensuring that the work continued moving forward. She felt that the facilitated work sessions were beneficial as well. For the document development effort, she explained, the group was trying to develop a compliant document using an established model that still retained the Board's values and acknowledged how it was different from the others under the EMSSAB. She stated that one of the biggest and most impactful changes being considered would be to the HAB's committees.

Tom Sicilia noted that the pace of document development was going well and that an initially 40-page document had been reduced to 28 pages, by that point. Chris Sutton provided additional detail on the document development. He explained that, though the effort had a defined deadline at the end of the FY, it needed to be submitted well ahead of that time to account for review and approval time through DOE Headquarters. He noted that part of the effort was retaining the "essence" of how the HAB operated in a document while increasing the likelihood that it would be approved after legal review.

Dan Solitz, OHCB, wondered if the HAB would have the opportunity to revise the document if it could not be approved as submitted and what feedback might be provided. Mike expected that the group could receive feedback from the Designated Federal Officer for consistency with FACA and the EMSSAB Charter, as well as other considerations. That review could serve as a "first pass" before formal submission.

Esteban Ortiz, Public at Large, commented that many technical aspects of Hanford were overwhelming to the general public and stated that there was a lack of understanding as to why the project cost so much money. He wanted to look at outreach aspects to be considered during the process and ensure that the result would help the HAB move along in its work.

Tom Galioto, Tri-City Development Council (TRIDEC), appreciated the goal of reducing duplication and redundancy in the Board's operating and guiding documents. He asked if the Board would see those results before submission. Susan Coleman stated that the Board must review and approve those changes

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per the HAB's Operating Ground Rules. Tom Galioto expressed concern that the reduction in the length of the document, asking if the details of the HAB's operations were being preserved. Chris explained that the content of multiple guiding and governance documents had been combined to create a single, comprehensive document. The editing of that combined content was an exercise to reduce duplication, redundancy, and conflicting statements, which resulted in significant reduction in length.

Jan explained that there was an intention to produce a companion document to serve as a desktop reference for HAB members, which could contain items that were not suited for operations and regulatory documents. That companion document would help to implement the operations document.

Ruth noted that, as part of the work leading to revision of the operating ground rules, the workgroup identified the hierarchy of its operating and guiding documents and how requirements would flow down through those documents.

Pam noted that a former HAB member, Bob Suyama, did a significant amount of work in development of the HAB Process Manual. She encouraged the workgroup to reach out to him for input as it developed the documents.

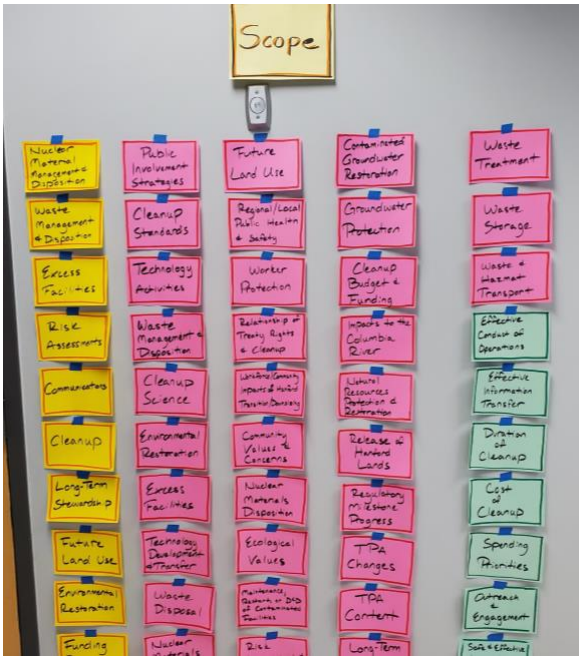
Ruth reminded the participants that the goal of the day was to look at the scope of the Board as defined in its foundational documents and determine how to organize that chartered work for the Board, ultimately determining the committees it wanted to organize for the following year.

Mike stated that to get back to the business of the HAB—getting information and providing actionable, policy-level advice—the Board needed to take the time to "slow down so it could speed up." He assured the group that the work being done was a fundamental part of that effort.

<u>Hanford Advisory Board Scope of Work</u>

Colored paper with short statements of the HAB's defined scope was arranged on the wall in several groups. That content is represented in *Appendix A*.

Chris Sutton explained that the papers on the wall represented the HAB's scope, as defined in the EMSSAB Charter (yellow colored paper), the HAB's MOU (pink colored paper), and included additional items added by Operations Workgroup members (green colored paper) based on the leeway offered by the scope definition of "other cleanup activities" in those documents. He stated that the EMSSAB charter scope represented "thou shalt" requirements defined by DOE Headquarters, while the MOU items were those that the TPA agencies asked the HAB to provide advice on



Initial Scope

The Operations Workgroup members grouped those scope items into high level categories (labelled with orange colored paper). The resulting categories were:

- Requirements
- Waste and Nuclear Materials Management and Disposition
- Communications and Outreach

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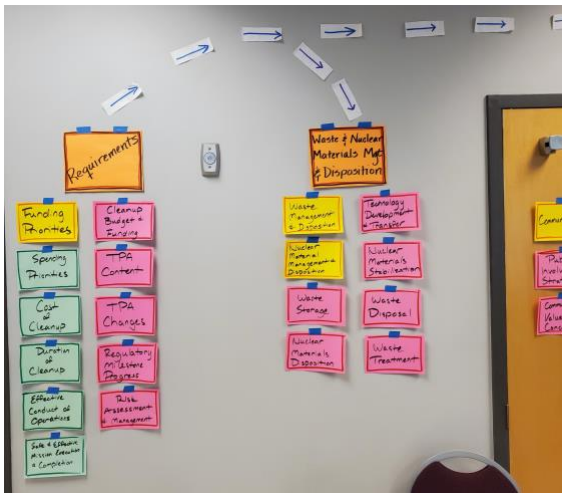
- Cleanup Activities and Environmental Restoration
- Future Land Use and Long-Term Stewardship



Example of scope categories as organized by the Operations Workgroup

Tom Sicilia noted that there were duplicate items represented in many instances due to flow-down between the EMSSAB Charter and the MOU. Susan Coleman discussed an analysis she did that demonstrated how the scope represented in those documents were aligned, stating that there were only a few items in the MOU that were unique to the Hanford Site, such as tribal interaction. Otherwise, the MOU aligned with the EMSSAB Charter but went into greater detail.

Jeff Wyatt, OHCB, asked about the reasoning behind cleanup and waste management being separated. Tom Sicilia explained that the waste management and disposition scope items were primarily managed by the DOE Office of River Protection (ORP) and regulated by Ecology while the cleanup scope items were primarily managed by DOE Richland Operations Office (RL) and regulated by EPA.

Tom Galioto asked if the workgroup considered scope that the HAB should consider that was not represented in the EMSSAB Charter or MOU. Tom Sicilia confirmed additional items added and represented by the green paper on the wall.

Rob Davis wondered if the scope items should be more specific, such as defining tank integrity as an item. Tom Sicilia explained that the workshop would include committee naming and committee description development. The scope items as listed on the wall were summarized versions of what the EMSSAB Charter and MOU defined for the HAB. He expected that those broad definitions would allow the HAB to remain "nimble" in its work plan development. Chris provided a funding analogy, suggesting that the scope could be thought of like the highest levels of a work breakdown structure. The specificity was in the lower levels, beneath more general headings. He stated that those specific items could be determined during work planning and the higher-level headings would not constrict the HAB's scope later when projects were completed.

Mike Berkenbile stated that there was a perspective among the HAB membership that the presently standing committee scopes were clear and accurate. However, when he joined the HAB, he immediately found them described in different ways in different places. He stated that lack of clarity served as a starting point for the opportunities that the workgroup explored, the results of which the COTW participants could see on the walls. He noted that the categories aligned with the statement he provided as DDFO to start most meetings. He felt that categorization would "resonate" with the chain of command going up because those were the items defined for the HAB to provide advice on. He stated it was an effort to align the Board with its foundational documents and where the Hanford Site was going. He suggested that a lower-level guidance document could serve to provide more specificity, if desired.

Richard Bloom, City of West Richland, stated that one of his favorite statements was that "an organization is a mistake in time" and a good way of to look at an organization is to look at its past activities. He recalled many of the past and ongoing activities on the Hanford Site and things that the HAB has advised on. He stated that the HAB was trying to produce effective advice but felt that much of the advice submitted over the past decades was ignored. In review of the categories, he wondered of "sub

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buckets" would help in categorization. He asked that, when considering the categorization, that the participants consider what the HAB should be commenting on.

Gary Younger noted that Brian Vance's most recent DOE update presentations had grouping activities in three categories: Tank Waste, Risk Reduction, and Infrastructure/Mission Support. He felt that the scope on the wall would align with Brian Vance's groupings. In response to note of scope differences between DOE-ORP and DOE-RL, he stated that each were trying to do the same thing: clean up the Hanford Site. He suggested that the effect of the actions could be considered, as well as what was important at the present time in comparison to the future. He cautioned that the if categories were "sliced to thin" the committees could become more difficult to support. He stated that if the categories did not work out as well as expected, however, they could be changed later.

Jacob Reynolds, Non-Union, Non-Management Employees, noted that the HAB's founding documents effectively stated that the HAB could comment on whatever it wanted. He liked the categories as they were arranged and felt they would be workable, so long as the HAB had the freedom to add more "greens" (referencing the colored paper) as it went along.

Dan Solitz suggested that there might be a split between areas and wastes that needed to be characterized versus what needed to be disposed of when organizing scope.

Pam Larsen agreed with Gary's caution of "slicing" the committees too thin. She felt that the long-term stewardship category represented that issue. Additionally, she felt that health and safety needed its own committee. She cautioned against creating categories that could give the Board an expectation that it could provide policy-level advice in areas that it could not be acted upon. Tom Sicilia also wanted to consider what the agencies were allowed to discuss. He noted that, for future land use, the decisions had not been made in relation to the TPA and the existing documents on the matter were not decision documents. Many of the Records of Decision (ROD) had not been finalized.

Richard agreed that future land use may not be an appropriate title and suggested that the related matters of infrastructure and waste management might be a more appropriate focus. He suggested that the health and safety could be a sub-committee that met as needed.

Esteban Ortiz cautioned that federal interactions were likely not well understood at a local level and those could not easily be explained simply to the average person.

Ruth explained the next steps of the workshop, which involved rearrangement of categories and scope as well as a determination of what to do with cross-cutting scope items. Development of committee descriptions would follow.

Michelle Holt, Benton-Franklin Council of Governments, cautioned against keeping a "risk reduction" category because the of how many items could interconnect with that subject. Ruth clarified that the group could rename categories as it saw fit or create new categories as desired. The structure shown on the wall was what the Operations Workgroup produced and was not meant to constrain the COTW's options.

Rob was unsure how to proceed without understanding what DOE was willing to support. Ruth further explained the idea of "alignment" that the Operations Workgroup members alluded to. The group went back to the HAB's foundational documents to see what was defined for the HAB, and without knowing what to expect as a result, categorized that scope. The result of that categorization was what was seen on the wall. By aligning with the scope identified for the HAB, the HAB could reasonably expect that the scope would be supported. She explained that the goal for the working lunch would be to take those

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higher-level scope categories, name the associated committees, and define those committees in a way that was clear to both the HAB and the agencies.

Chris suggested that there was an opportunity for the COTW participants to add more scope it wanted those committees to pursue. Tom Sicilia noted that some scope may fall under multiple committees, such as waste disposal.

Mike, acknowledging Pam's earlier comment, stated that health and safety were paramount to all things on the Hanford Site. He discussed some of the goals pursued by the Operations Workgroup, stating that the idea of scaling back the number of committees was considered as fewer committees would be easier to support. Additionally, as the workgroup did its initial scope categorization, the prevalence of cross cutting issues became evident. He hoped that, as the scope was reordered, those cross-cutting topics could become the "critical few." He asked that, as the participants work with the scope, that they consider how those grouping could become committees and how much work it would take to sustain those committees.

The participants were provided time to work on scope rearrangement.

Discussion of Rearranged Scope

The participants were invited to discuss how the scope was rearranged.

Tom Sicilia observed that there appeared to be a lot of clarification on what words meant and that health and safety was added as a category. He noted that duplications were added in several areas, in recognition that some items belonged in several locations. He expected that the contextual meaning of some items would need to be clarified when committee descriptions were developed.

Dan Strom, Benton-Franklin Health District, explained that he did not like using the word "risk" without context to the type of risk. He felt that it was meaningless without that context.

Michelle Holt provided clarification for risk reduction under the health and safety category. In that category, risk reduction was paired with items that were thought to be individual or community level concerns, such worker protection or economic risks, as opposed to environmental risks.

Cross-Cutting Issues and Topics

Pam Larsen noted that there have been issues that crossed committees for a long time on the HAB. In the past, the committees would hold a joint meeting so the members of each committee would hear the same presentation. She expected that practice was reasonable to continue.

Tom Galioto noted the addition of infrastructure under the cross-cutting topics group, stating that it was intended to be roads, sewers, and similar infrastructure items, contrasted with infrastructure such as landfills being considered under the future land use, infrastructure, and disposal group. Richard Bloom felt that each variety of infrastructure could go under the future land use, infrastructure, and disposal group, along with most of the other cross-cutting items, as each were essential items to progress cleanup of the Hanford Site.

Michelle Holt suggested that cross-cutting topics could be held as a COTW meeting where all members were present to hear presentations and discuss the topic.

Rob Davis felt that cross cutting topics should be handled during Board meetings. He expected those topics would only consist of informational presentations. Tom Sicilia wondered if the leadership committee would be the one to sponsor and Issue Manager (IM) team, should advice be desired on one of those topics.

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Tom Galioto felt that there was not enough time during Board meeting to discuss evolving or critical issues on those topics and did not like the idea of the leadership committee leading such matters.

Susan Coleman suggested that the cleanup priorities IM team that was developing draft advice served as a model for how those items could be handled, as the IM team was gathering input from all other committees during development of its advice. She stated that those items did not require a permanent committee. Instead, a task force could be created as needed. She also stated that, while health and safety was relevant to all things that the HAB discusses, there may not be enough work for a standing committee.

Pam noted that committees are asked to identify items of importance to the committee during work planning, which would be how cross-cutting topics of relevance to a committee could be identified.

The participants reorganized scope items as the discussions were ongoing, resulting in four categories that represented potential committees:

- Tank Farms, Tank Waste Treatment
- Communications & Outreach
- Cleanup & Risk Reduction
- Future Land Use, Infrastructure, Disposal

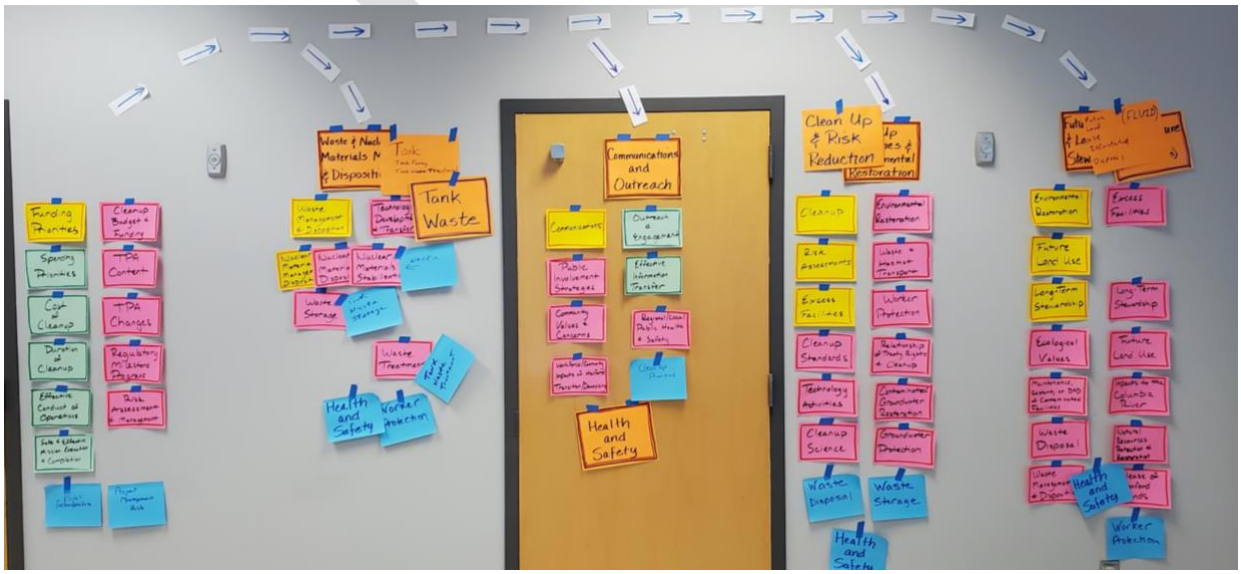
The final result of the scope rearrangement, as it appeared following all relevant discussions, is represented in *Appendix B.*

<u>Proposed Committee Names and Scopes of Work</u>

In preparation for an extended break, participants were asked to form groups for each of the proposed committees that would determine a name for the associated committee and develop a description of that committee's scope.

The resulting committee names were:

- Cleanup and Risk Mitigation (CARM)
- Future – Land Use, Infrastructure, and Disposal (FLUID)



Scope categories following rearrangement.

- Community Outreach and Engagement Committee (COE)
- Tank Farms and WTP Operations

Dan Strom presented the mission statement for COE. Mike Berkenbile asked if effective information transfer was meant for the TPA agencies to transfer information to the community or from HAB members to their constituencies. Michelle Holt confirmed that each of those were discussed for that committee.

Tom Sicilia explained that, for CARM, DOE's description of risk management in the Hanford 5-Year Plan was adapted for the committee's description. Jacob Reynolds wondered if CARM's scope would include tank farm areas. Tom Sicilia stated that it could potentially include soil remediation in those areas, but not the empty tanks.

Richard Bloom discussed the items under FLUID, which was focused on all current and future land uses for the site. He noted that all infrastructure items were included under that committee.

Rob Davis reviewed the description and intended scope for the Tank Farms and WTP Operations Committee.

The meeting participants discussed the wording of each item in detail, such as clarifications of scope against specific projects or documents. Wording changes based on the results of the discussions.

The committee names and descriptions resulting from the discussions are provided in *Appendix C*. Additional adjustments were made to the scope categories, represented in *Appendix B*.

Tom Galioto asked that the Operations Workgroup take the committee names and descriptions as suggestions. He advised the Operations Workgroup to continue to work on those descriptions and examine the results from the COTW to ensure all aspects were considered in the resulting product.

In relation to potential overlap between the proposed committees, Chris stated that an IM team could be formed for such topics that could draw upon members from each of the relevant committees. Tom Sicilia noted that specific items for each committee would be defined in the HAB's annual work plans and joint meetings could be scheduled as appropriate.

Mike wanted to ensure that any rework would get the "blessing" of those that worked on the committee descriptions initially, so that when presented to the full Board, their authors could stand by them and champion them.

Public Comment

Public comment was provided by Steven Fine. He read his comments to the Board and provided the comment in writing. The comment, as submitted, is provided in *Appendix D*.

Implementing Committee Improvements

Susan Coleman asked what the best means of signing up for the new committees would be. She suggested that a survey could be distributed that asked members which committees they wanted to serve on. Alternately, members would be able to go to the facilitation team and state their desire to join a committee.

Tom Sicilia suggested distributing signup sheets at the April Board meeting.

Richard Bloom asked if committee participation would be limited or if members would be free to sign up for all four committees. Susan stated that participation was not planned to be limited. The two reasons she was aware of for those limitaitons in the past were related to travel costs, which could be mitigated by

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remote participation, and so that no one organization had a disproportionate presence in committee discussions.

Ryan Miller asked that TPA agency staff have the opportunity to join the resulting email distribution lists.

Pam Larsen suggested that April would be too soon for signups and stated that the Executive Issues Committee (EIC) could plan implementation at its next leadership workshop in June. She expected that implementation would align with the start of the next fiscal year. Tom Sicilia wondered who would represent those the new committees during the leadership workshop. Pam felt that it would be best to rely on the established and experienced leadership to plan work for the new committees.

Tom Sicilia noted that there was an opportunity to align the elections process more closely with the membership packet process, with both new committee establishment and new members joining the Board on October 1. Michelle Holt provided her perspective as a new member and newly elected committee leader. She felt that it was important for new members to have a chance to acclimate to the Board, processes, and its committees before being asked to decide to run for leadership.

Chris Sutton noted that the new committee scopes aligned closely with some of the existing committees, with the exception of FLUID. He expected that those leaders could transfer to leading the new committees, where applicable. Mike Berkenbile observed that worker safety was not explicitly defined in the committee descriptions. He wanted it to be clear that those concerns would be acted upon by the new committees. Richard believed that much of the existing Health, Safety, and Environmental Protection Committee (HSEP) scope could be well represented by FLUID.

Tom Galioto suggested that Chris remain on the EIC as chair of the present Budgets and Contracts Committee (BCC). Tom Sicilia confirmed there was a precedent for keeping past leadership on the EIC through transition periods.

Susan confirmed that the expectation would be to allow committee signups from April to October and that present committee leadership would remain in place until the next committee elections in calendar year 2024.

Regarding development of the work plan for the new committees, Tom Sicilia suggested that the current committees submit their interests and concerns to ensure those were incorporated into the work planning for the new committees. It was requested that the TPA agencies also submit their ideas and wants as well.

Other Topics

Susan Coleman explained that she was interviewed for an article on the HAB that would be appearing in the *Tri-City Journal of Business*. Jeff Wyatt contributed, stating that he was interviewed for a similar article as chair of the OHCB.

Esteban Ortiz expressed his appreciation for past HAB members that mentored him, including Emmitt Jackson and Bob Suyama.

Richard Bloom explained that the HSEP had been pushing for traffic safety measures for years. Ben Franklin Transit (BFT) had done a survey that received over 800 responses from Hanford workers. As a result, BFT would be piloting a test ride to Hanford. Those details of that pilot program were being developed.

Next Steps

The proposals developed in the COTW would be considered for adoption by the full Board at its April meeting.

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Meeting Recording

https://youtu.be/Dhe3dy7VHWc

Attachments

Attachment 1: Meeting Agenda

Attendees

Board Members and Alternates:

Chris Sutton, Primary*	Dan Strom, Primary*	Esteban Ortiz, Primary*
Jacob Reynolds, Primary*	Jan Catrell, Primary*	Jeff Wyatt, Primary*
John Smart, Primary	Kristie Baptiste-Eke, Primary	Laurene Contreras, Primary*
Michelle Holt, Primary*	Miya Burke, Primary*	Rob Davis, Primary*
Rob Parmalee, Primary*	Steve Anderson, Primary*	Susan Coleman, Primary*
Tim Kovis, Primary	Tom Galioto, Primary*	Dan Solitz, Alternate
David Reeploeg, Alternate	Pam Larsen, Alternate*	Richard Bloom, Alternate*
Rose Ferri, Alternate	Tom Sicilia, Alternate*	Tracie Arnold, Alternate*

Others:

Gary Younger, DOE*	Dave Einan, EPA*	Dieter Bohrmann, CPCCo
Mike Berkenbile, DOE*	George Peck, ECY	Dana Cowley, HMIS
	Ryan Miller, ECY*	Patrick Conrad, HMIS
	Tom Rogers, WADOH*	Matt Hendrickson, ODOE
		Li Wang, YN ERNW
		Sally Smith
		Steven Fine
		Josh Patnaude, HAB Facil.*
		Lacey Mansius, HAB Facil.*
		Olivia Wilcox, HAB Facil.*
		Ruth Nicholson, HAB Facil.*

** denotes that the individual was signed-in or otherwise noted as an in-person attendant*

Note: Participants attending this meeting virtually were asked to sign in with their name and affiliation in the chat box of Microsoft Teams, while those joining by phone were asked to announce that information. Not all attendees share this information. The attendance list reflects what information was collected at the meeting.

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Appendix A: Initial Workshop Wall Content

Initial Scope

Cleanup	Cleanup Budget & Funding	Outreach & Engagement
Communications	Cleanup Science	Effective Information Transfer
Environmental Restoration	Cleanup Standards	Spending Priorities
Excess Facilities	Community Values & Concerns	Cost of Cleanup
Funding Priorities	Contaminated Groundwater Restoration	Duration of Cleanup
Future Land Use	Ecological Values	Effective Conduct of Operations
Long-Term Stewardship	Environmental Restoration	Safe & Effective Mission Execution & Completion
Nuclear Material Management & Disposition	Excess Facilities	
Risk Assessments	Future Land Use	
Waste Management & Disposition	Groundwater Protection	
	Impacts to the Columbia River	
	Long-Term Stewardship	
	Maintenance, Restart, or D&D of Contaminated Facilities	
	Natural Resources Protection & Restoration	
	Nuclear Materials Disposition	
	Nuclear Materials Stabilization	
	Public Involvement Strategies	
	Regional/Local Public Health & Safety	
	Regulatory Milestone Progress	
	Relationship of Treaty Rights & Cleanup	
	Release of Hanford Lands	
	Risk Assessment & Management	
	Technology Activities	
	Technology Development and Transfer	
	TPA Changes	
	TPA Content	
	Waste & Hazmat Transport	
	Waste Disposal	
	Waste Management & Disposition	
	Waste Storage	
	Waste Treatment	
	Worker Protection	
	Workforce/Community Impacts of Hanford Transition/Downsizing	
	Cleanup Budget & Funding	

Paper Color Legend:

Yellow	EMSSAB Charter Scope
Pink	MOU Scope
Green	Workgroup Addition

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Operations Workgroup's Scope Categorization

Requirements	Waste & Nuclear Materials Mgt. & Disposition	Communications and Outreach	Cleanup Activities & Environmental Restoration	Future Land Use & Long-Term Stewardship
Funding Priorities	Waste Management & Disposition	Communications	Cleanup	Environmental Restoration
Cleanup Budget & Funding	Nuclear Material Management & Disposition	Public Involvement Strategies	Risk Assessments	Future Land Use
TPA Content	Nuclear Materials Disposition	Community Values & Concerns	Excess Facilities	Long-Term Stewardship
TPA Changes	Technology Development and Transfer	Outreach & Engagement	Cleanup Standards	Maintenance, Restart, or D&D of Contaminated Facilities
Regulatory Milestone Progress	Nuclear Materials Stabilization	Effective Information Transfer	Technology Activities	Regional/Local Public Health & Safety
Risk Assessment & Management	Waste Storage		Cleanup Science	Ecological Values
Spending Priorities	Waste Disposal		Environmental Restoration	Waste Management & Disposition
Cost of Cleanup	Waste Treatment		Waste & Hazmat Transport	Excess Facilities
Duration of Cleanup			Worker Protection	Workforce/Community Impacts of Hanford Transition/Downsizing
Effective Conduct of Operations			Relationship of Treaty Rights & Cleanup	Long-Term Stewardship
Safe & Effective Mission Execution & Completion			Contaminated Groundwater Restoration	Future Land Use
			Groundwater Protection	Impacts to the Columbia River
				Natural Resources Protection & Restoration
				Release of Hanford Lands

Paper Color Legend:

Orange	Category Heading
Yellow	EMSSAB Charter Scope
Pink	MOU Scope
Green	Workgroup Addition

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Appendix B: Final Workshop Wall Content

Committee of the Whole Scope Recategorization

Leadership	Tank Farms, Tank Waste Treatment	Communications & Outreach	Cleanup & Risk Reduction	Future Land Use, Infrastructure, Disposal (FLUID)
Funding Priorities	Waste Management & Disposition	Communications	Cleanup	Environmental Restoration
Cleanup Budget & Funding	Nuclear Material Management & Disposition	Public Involvement Strategies	Risk Assessments	Future Land Use
TPA Changes	Nuclear Materials Stabilization (Waste)	Community Values & Concerns	Excess Facilities	Long-Term Stewardship
TPA Content	Technology Development & Transfer	Workforce/Community Impacts of Hanford Transition/Downsizing	Waste & Hazmat Transport	Maintenance, Restart, or D&D of Contaminated Facilities
Regulatory Milestone Progress	Nuclear Materials Disposition	Regional/Local Public Health & Safety	Technology Activities	Waste Management & Disposal
Risk Assessment & Management	Waste Storage	Outreach & Engagement	Cleanup Science	Waste Disposal
Cost of Cleanup	Waste Treatment	Effective Information Transfer	Environmental Restoration	Ecological Values
Spending Priorities	Tank Waste Treatment	Cleanup Priorities	Cleanup Standards	Excess Facilities
Duration of Cleanup	Tank Waste Storage	Health and Safety	Worker Protection	Future Land Use
Effective Conduct of Operations	Worker Protection		Relationship of Treaty Rights & Cleanup	Long-Term Stewardship
Safe and Effective Mission Execution & Completion	Health and Safety		Contaminated Groundwater Restoration	Impacts to the Columbia River
(Site) Infrastructure	Nuclear Waste Disposition, Stabilization, Storage		Groundwater Protection	Natural Resources Protection and Restoration
	Project Management Risk		Waste Disposal	Release of Hanford Lands
	Tech. Development		Waste Storage	Health and Safety
	Tank Farms and WTP Ops		Health and Safety	Worker Protection
	Waste Treatment			
	Tank Integrity			
	Tank Leaks			
	TSCR			

Legend:

Orange	Category Heading
Yellow	EMSSAB Charter Scope
Pink	MOU Scope
Green	Workgroup Addition
Blue	Workshop Addition (may include duplicates of other categories)

Appendix C: Committee Names and Scope

Cleanup and Risk Mitigation (CARM)

The CARM Committee is chartered to develop advice pertaining to:

- Characterization and cleanup of Central Plateau and Columbia River Corridor waste sites.
- Disposition of unused facilities.
- Groundwater investigation and remediation.
- Closure of waste management areas.

Future, - Land Use, Infrastructure, and Disposal (FLUID)

Current and future land status of the site.

* Public Access
* Disposal sites
* River impacts
INFRASTRUCTURE
* Excess Facility
Maintenance function
Water, sewer, roads, Electric
Waste disposal
WASTE management
TRU waste ship
Permits
Min safe activities.

Community Outreach and Engagement Committee

Our mission is encouraging outreach and engagement between TPA agencies and the community at large creating opportunities for communication and dialog. These may include sharing community values and concerns, regional and local public health and safety, public involvement strategies, and effective information transfer.

Tank Farms and WTP Operations

Scope:

- Project Management and Operation Risk
- Technology Development
- Nuclear (Radioactive) Waste
    - Waste Form
    - Disposition
    - Stabilization
    - Storage
- Waste Treatment
- Tank Integrity and Inspections
- Tank Leaks
- TSCR – Pretreatment

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The scope of this workgroup (committee) includes processing and permitting of contents of the tanks including integrity, operational aspects, and maintenance of contaminants and processing facilities.

Consider the WTP and tank farm operations. Consider technology development of the various options for waste form, disposition, immobilization, and storage. Consider future tank leaks and tank integrity.

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Appendix D: Public Comment Submission

GOOD DAY ... MY NAME IS STEVEN FINE AND I AM AN ENGINEER AND MBA, HAZARDOUS CHEMICAL BUSINESSMAN, AND CONSUL TANT FOR SCIENCE AND BUSINESS.

BY CHANCE AROUND 2016 I WAS PERFORMING SOME CONSULTING THAT EXPOSED ME TO THE HANFORD RESERVATION AND SPECIFICALLY THE VITRIFICATION PLANT. WHEN I RESEARCHED THE HISTORY OF THE VITRIFICAITON PLANT SINCE 1989, THE YEAR HANFORD WAS DECOMMISIONED, I WAS AGHAST AT THE OBJECTIVES, ACTIONS, INERTIA AND ALL AROUND HANDLING OF THE 56 MILLION GALLONS of mixed radioactive hazardous HELD IN THE 170 TANKS FOR DECADES.

Over 30 years there has not been a gallon treated formally from the tanks. And last year there was 1.5 billion dollar spent to maintain the waste in the tanks and continue to build the DFLA W plant, pursuant to treating final filtered waste from the TSCR process, which separates high versus low radioactive waste. The final filtered waste is watery and radiation is not more than one would experience in a medical test.

Ninety percent of the waste in the tanks has been determined to be mixed low radioactive waste and not typically processed by vitrification. For decades in Savannah, most of the waste consistent with the watery, low radioactive nature of the final filtered waste from the TSCR has been immobilized and then solidified with an appropriate concrete, and then buried. In addition, the waste in the 170 tanks at Hanford have to be diluted so actual treatment of the waste would involve more than 2 to 3 times the 50 gallons in the tank farm. Treatment has been estimated under all conditions at 60 plus years.

Per non cost models presented in August 2021 by Laura Cree of the Washington River Protection Solutions, the company maintaining the waste in the tank farm, a 1 million gallon sample vitrification model was created from Hanford information based on the number of days it would take the TSCR to separate 1 million gallons (154 days). Results were that not more than 1/3 of the million gallons would be vitrified, and 2/3 or more of the inputted waste would end up as secondary waste. The secondary waste would be treated by other methods than vitrification. Most of the secondary waste would be handled by immobilizing and solidifying by concrete. But there are still questions regarding the nature of the secondary waste and its dangers.

The vitrification model was based on a 70 percent efficiency, but vitrification systems typically are 40 percent efficient so the output would take more time, input and money.

Aside from this treatment performance, there would be 3 million gallons of diesel fuel required (19000 per day) and that would create near 20000 metric tons of CO2.

There would be 150 truckloads of hazardous chemical required.

There would be 2 million gallons of water used wherein most would be contaminated and be secondary waste.

There was a statement that vitrification potentially could create 36 high hazard consequences.

The amount of energy used would power some 15,000 homes as with Vitrification the process requires 2000F of heat.

ALTERNATIVELY, MS. CREE did a non cost model on GROUTING (and this means immobilizing the waste and then solidifying with a proper concrete. THIS IS VERSUS THE COMMON TERM WHEN CONCRETE IS JUST POURED ON SOME WASTE WITHOUT TREATMENT). The model was based on input from the Savannah River operation.

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All the waste was treated. There was no secondary waste.

There was no heat, diesel fuel, copious amounts of water or hazardous chemicals. The process was environmentally clean, the amount of energy was a small compared to energy used with vitrification. There were no high hazard consequences.

The process in solidifying with concrete would create 1.6 gallon per gallon input, but DOE would only be charged per inputted waste. THIS GROUTING PROCESS would be 1/10 the cost of vitrification and save tens of billions of dollars per GAO and NAS.

Relative to the argument that the tanks at Hanford have hundreds of hazardous chemicals versus a simpler mixture at Savannah, the contractor, Penna Fix NW, purports all the hazardous chemicals listed in the tanks it can and have treated. In addition, Jim Conca, a PH.D in Geoscience, who is known to most of you, categorically stated that the GROUTING PROCESS could handle the total myriad of hazardous waste.

As related in articles, Penna Fix has the capability to handle 300,000 gallons of waste per year now, which is equivalent to 1 million gallons inputted for vitrification, as the Vit plant would do about 300,000 vitrified gallons per 1 million gallons inputted. In various articles, Perma Fix could scale up to 3 million gallons per year, and this is equivalent to 9 million gallons inputted into the vitrification process, but over 6 million of this inputted waste would be secondary waste,

not vitrified.

Governor Inslee was written up in the NY Times in August as one of the first to advocate climate change. The legislature of Washington state has advocated climate change and control of CO2 and other deleterious harmful chemicals. The U.S. government had stated that any government contractor that does over 7 million gallons a year, must restrict and control their environmental impact.

AS A PRAGMATIC BUSINESSMAN, it seems logical that Perma Fix should start immediately to treat waste, which would lesson the pressures of leaky tanks, create tank space and allow the TSCR to keep processing with the extended Consent decree initiation date in mid 2025. Vitrification should proceed and since it is estimated it will take 70 years to treat the waste, there minimally should be 2 processing systems treating the waste. The result would be backup if for example something went awry as Vitrification was delayed. Waste would get treated faster and cheaper.

In a recent NAS study on Low rad waste, it was stated that GROUTING would save billions and push the timeline of treated waste back 10 years if waste were GROUTED offsite and buried offsite. And the burying offsite would prevent issues with groundwater at Hanford. It is noted that Perma Fix with its national plants has immobilized and then solidified with the proper concrete over 1 million gallons since its inception in 1992. I will not discuss where the waste is buried as a recent ROD by Doe proposes to bury secondary waste processed by Penna fix in different places.

I can only say that I live by the notion that the past is over, today's issues I must solve and the future is an illusion. So by immobilizing all the waste and solidifying with the proper concrete, without any environmental impact, we can start treating now, lesson the environmental impact

of vitrification and save a lot of money. We must question if money will be available with all the issues confronting our government.

We must consider climate change and that Hanford is in an earthquake zone. So time

is urgent because if there is a black swan event, there may be no chance to treat the waste.

Finally fear of losing revenue by not vitrifying seems irrelevant as treatment of waste will take some 60 to 70 years. And concerns over jobs for labor are also false as there is a scarcity of workers. One can ask if there will be enough workers in the future.

So let us be courageous and do what GAO, NRC, NAS, DOE and most credible scientific bodies propose. IT IS TIME TO MOVE FORWARD WITH SANITY AND AN OPEN MIND, start treating waste by immobilizing and then solidifying with the proper concrete. Simultaneously we move forward with the construction of the DFLAW plant.

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