

DRAFT MEETING SUMMARY (v.2)

DRAFT - NOT APPROVED BY COMMITTEE

**HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE
October 10, 2001
Richland, WA**

Topics in this Meeting Summary

Committee Business – Responses to Past Advice	1
Central Plateau Risk Framework	1
Institutional Controls Plan	10
Environmental Restoration Disposal Facility (ERDF)	13
Transuranic (TRU) Retrieval Environmental Assessment	16
Committee Business – Work Plan	17
Handouts	20
Attendees.....	20

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

Committee Business – Responses to Past Advice

Facilitator Penny Mabie, EnviroIssues, summarized the responses to the committee’s past advice. Advice #113, regarding accelerating cleanup, triggered responses from DOE-RL, EPA, and Ecology. Advice #114 was about the River Corridor contract and DOE-RL sent a response; the responses to Advice #119, about the B-Reactor, were discussed at the September Hanford Advisory Board (HAB) meeting; Advice #120 was about budgets; and there has not yet been any response to Advice #117 about Low level Burial Ground Expansion.

The committee discussed the best way to track responses to advice. Susan Leckband feels it is the Issue Manager’s responsibility to follow that piece of advice – the IM should report back to the committee. Ruth Siguenza, EnviroIssues, clarified that responses are included in the packet and faxed to the appropriate committee chair, vice chair and issue manger(s).

Central Plateau Risk Framework

Committee chair Pam Brown introduced the agenda item as the subject of significant planning. She introduced Moses Jarassyi, Bechtel Hanford International (BHI), who is working on an effort to frame risks for the Central Plateau.

Moses explained that there are many additional, related activities on the site regarding the future of the Central Plateau: the Cleanup, Challenges, and Constraints Team (C3T), decision making in the Tank Farms, and strategic planning on the Central Plateau. There is a need on the Central Plateau to define terminologies, zones, land uses, and consistent risk assessment parameters and assumptions. There are over 10 programs operating in the 200 Area, each with its own mission and goals. Therefore it is crucial to establish consistent standards and integrate the programs to help the eventual comparison of risk values and outcomes. In sum, consistency and timeliness are the drivers for this process.

The overall goal is to reach and formalize an agreement between the Tri-Party Agreement (TPA) agencies on the risk framework to support feasibility study analysis and remediation/closure decisions for the Central Plateau. The process will involve the public, stakeholders, and tribal nations. The impacted programs are: Tank Closure and Retrieval, Tank Farm Corrective Action, Tank Waste Disposal (ILAW), Solid Waste Management, Groundwater Management, Facility Transition (Canyon Disposition Initiative, Decontamination & Decommissioning), 200 Area Characterization and Remediation Action, System Assessment Capability, Long Term Stewardship and Institutional Controls, and the C3T Strategic Effort. He noted that the Risk Framework group's output will be an input to the C3T effort. Moses emphasized that 47 people, including project managers, EPA, and Ecology, participated in this process.

This is the second time the group has approached the committee. It will also meet with the technical representatives and councils of the tribal nations and the Oregon Hanford Waste Board. The output will also be used as an iterative step to help set the final End States of the Central Plateau. John Morse is leading the DOE-RL team, Dennis Faulk is leading for EPA, and John Price for Ecology.

- The committee asked for a definition of the Hanford community. Moses answered DOE, regulators, stakeholders, tribal parties, and the interested parties who have always been interested in the site.
- A committee member asked why the agenda item was not a broad discussion about how to deal with end states, instead of focused only on the 200 Area. He wanted to know when there would be a general discussion to prepare for the Record of Decision (ROD) coming up for the 100 Area and work on the 300 Area, and when the HAB would have a broad discussion of the overall discussion of End States. He noted that Mike Wilson and Max Power had indicated strong support to define the process. Penny Mabie, EnviroIssues, clarified that the agenda item is very specific to the 200 Area, but there would be time later in the meeting to discuss the committee's issues about inputs to the November HAB meeting, at which time the broader discussion would occur. She noted that none of the committees were talking about the broader process this week; that process discussion will be at the full HAB meeting. The committee member requested the Risk Framework group provide the HAB with details about the public process, when meetings are scheduled, and how the input is laid out.

Process of the Risk Framework Group

Dennis Faulk, EPA, explained that the Risk Framework group's effort is a discrete piece of work the agencies have to do. The group produced three white papers that successfully framed a discussion at a meeting the previous week. He would like to use a similar format at the November HAB meeting. He emphasized that the group had assembled 47 people and they had arrived at some consensus ideas. The group may return to the HAB in December to help decide if the information is complete enough for a full public review.

Dennis also emphasized that the C3T work is important and serves as an appropriate forum to discuss the 100 and 300 Areas. The C3T group is producing an Agreement in Principle within the next two weeks to start setting schedules for the 100 and 300 Areas, which will set the stage for negotiations (the 100 Area milestone is due December 31st). EPA would like the HAB involved in the negotiations stage of that process.

- A committee member questioned how the agencies could consider moving forward with a ROD for the 100 Area or an Agreement in Principle when End States have not been defined. Further, when between now and December 31 would the other entities be involved in the process? Dennis explained that the agencies are not setting a ROD; they are setting milestones and the end date is 2018. He envisions the Agreement in Principle as outlining the process to define End States, which would likely be a very long process, as well as what and when will be negotiated. He noted that the agencies would like to complete the Agreement in Principle to influence the budget cycle.
- A committee member asked what the Agreement in Principle for DOE-HQ would cover. Dennis commented that it has yet to be defined. EPA would like a framework to negotiate 100 and 300 Area cleanup and schedules within the 200 Area.
- HAB Chair Todd Martin commented that the HAB sent a letter and the two verbal priorities were the 200 Area and the RiverCorridor/2012. He urged the committee to discuss its concerns about when the River Corridor/2012 should be discussed and include the item as something for the HAB to cover in November.

Regulatory Requirements

Moses introduced Larry Vedder to explain the relevant regulatory requirements so people understand the Risk Assessment Drivers. The Model Toxics Control Act (MTCA) relates to the Comprehensive Environmental Restoration and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and DW/RCRA. The National Environmental Protection Act (NEPA), State Environmental Protection Act (SEPA), and DOE orders also are drivers.

Regarding MTCA Risk Evaluation, MTCA is similar to CERCLA, although some parameters are slightly different. MTCA provisions are pre-established for residential and industrial exposure, but does recognize other land uses such as agricultural, recreation, and commercial. The cleanup level is a calculated level that indicates whether action is necessary or not but provides no clarity about what that cleanup process is. For other exposures it is possible to set exposure parameters but there are no defined parameters for what those scenarios look like.

Exposure scenarios support risk assessment. Residential and industrial scenarios are already defined under the Hanford Site Risk Assessment Methodology (HSRAM). There are other scenarios that have been qualitatively defined. MTCA has an established exposure parameter. Certain parameters are not expected to vary on a site-by-site basis, such as body weight, lifetime, soil ingestion rate, and breathing rate. Other parameters may change based on measurable characteristics, such as contaminant leaching and transport variables, and inhalation absorption fraction. The Risk Framework group is more concerned with the parameters of exposure frequency and exposure duration.

- Are Nuclear Regulatory Commission (NRC) criteria, such as 60-61, considered? Larry Vedder answered that the NRC and DOE requirements define an intruder scenario.
- Under MTCA, is there a radiological risk model? Larry answered that there is not specific risk under MTCA.
- Does MTCA allow a best estimate model? Larry answered that the flexibility exists. MTCA defines some scenarios but does not define acceptable answers. Dennis Faulk added that EPA is using RES-RAD in the 100 and 300 Areas but has not determined what to use for the 200 Area.
- Why is a conservation mining scenario included? It is for getting material to put in the caps for remediation on the site.
- Will the scenarios for public or environmental risk be applied across the site generically? Larry Vedder and Dennis Faulk were not sure of an answer. Right now the group is focusing on the 200 Area, but hopes to develop consistency and a framework. Everything depends on a reasonable exposure scenario for the site. For example, there could be different scenarios on the shoreline than next to an industrial site in the 200 Area.

Geographic Zones and Time Phases

Mary Todd, BHI, is currently working on the CW1 operable unit, which includes facilities within the 200 Area proper as well as outside it. DOE-RL has a milestone to submit a feasibility study to the regulators by March 2003.

The boundary came from the Future Site Uses Working Group (FSUWG) as the exclusive waste management zone. It also resulted from the Comprehensive Land Use Plan (CLUP) Environmental Impact Statement (EIS) and the ROD that followed. That area has been determined through those documents with continued waste management activities. The CLUP EIS defines those zones as the conservation mining zone.

Mary Todd explained that the group drafted white papers to provide background information and thus serve as a starting point. The Core Zone is where remediation and operations will continue for the foreseeable future; this includes the tank farms, 200 Area remedial action, Canyon Disposition Initiative (CDI), and others. The Expanded Remediation Zone is for waste sites outside of the Core Zone; it would not include new waste management facilities. There is also a Groundwater Buffer Zone, since there are still many unknowns with groundwater.

The Time Phases were divided into Remediation, Active Institutional Controls, and Passive Institutional Controls. The group agreed that 50 years is a reasonable timeframe for remediation. DOE would maintain control and limit public access. There would be continuing regulatory reviews during this phase. During the Active Institutional Controls period, the group agreed that 100 was a reasonable estimate, but built in some flexibility. This period would include federal control – fencing, perhaps a presence, restricted public access to core and remediation zones, people would be discouraged from living there, and most remedial action work would be completed. Passive Institutional Controls would include deed restrictions and signage. The beginning of passive controls would be fairly flexible, depending on impacts of different scenarios. There would probably be some general public access. Ideally a buffer zone would be available for public use.

- How long a hazard index is the group considering for chemicals and radiological decay? Mary Todd answered that the group calculates out at least 1000 years. Each piece must be evaluated specifically, since there are different contaminants.
- Since it is DOE's policy to import active waste, is there any indication that DOE will keep importing waste for 50 years? Moses said the baseline for Hanford extends farther than for other sites in the DOE complex. If DOE-HQ changes their policy the group will revisit its assumptions.
- In addition to vitrification in the next 50 years, will there be soil remediation in the Central Plateau? Mary Todd said there are about 700 waste sites to address in the 200 Area. Moses added that active waste management includes soil remediation. There are 23 operable units. The longest people would be working in the area will be 50 years.
- Given the time periods of 50 or 100 years, is there a plan to develop technologies to reduce our reliance on the Institutional Controls? John Morse said that would be addressed in the Long Term Stewardship Plan. A committee member suggested initiating a proactive plan to reduce those times.
- How definite are the borders? Mary Todd said the igloos have been added as a waste site, to be incorporated into an existing operable unit. Waste sites fairly far outside the boundary could have an automatic cleanup. The presence of the remediation zone is to include those sites. Moses said it is a theoretical line to include the waste sites, so discovering some later would include those within the line. Mary said the Remediation Zone boundary could eventually be shrunk. The FSUWG thought of a buffer zone.
- The committee asked why the buffer zone was only specified for groundwater. Mary Todd responded that other buffer zones could be defined to protect people from contamination. Also, there could be limited surface water uses even though the groundwater below is contaminated.
- Ken Bracken asked about the significance of the Future Site Uses Working Group report in defining zones. That report was not required by NEPA, it was a thought process. Wouldn't the boundary, as it was referred to earlier, be directly affected by the vitrification plant? John Morse said the boundary that was built in the FWUSG is memorialized in a document. Ken Bracken asked how those boundaries are expanded – whether there needs to be a supplement to the EIS? John Morse said expansion

requires documentation to the environmental process. Dennis Faulk said that the Land Use Plan might need to be changed; it might be written in such a way that it does not need to be modified. John Morse said expanding the boundary might not require modification, but reducing it would.

- Ken Bracken asked about the passive control period. John Morse said there would continue to be institutional controls (IC). Ken Bracken said an intruder scenario means you lose control. Larry Vedder said IC is used differently in different contexts. From the EPA perspective it is used for restricted covenants or notices in deed, but passive controls might also include barriers and engineered controls – physical barriers. Ken Bracken said if you're trying to communicate to the public about how this site will be viewed in the future, lack of institutional control is an issue. I suggest you be clear in your communication because passive control does not define all that is there.
- Wade Riggsbee commented on the Active WM Cleanup Period. Many safety studies are done about airborne release accidents. Have you considered buffers for airborne dangers? John Morse said there are and that is a consideration. Buffer zones will be determined based on a safety analysis.
- Doug Huston asked about Active Institutional Controls. It seems like this is an unnecessary two-step process – why not just immediately set up the remediation scenarios to accommodate passive controls. Mary Todd answered that that's true inside the core, but outside the core such as in B Pond and Gable Mountain pond the decay rate is quicker. Most of those sites are associated with the cooling water and received less contamination. That's where that becomes important.
- Dan Simpson asked if the Core Zone includes remedial sites.
- Dennis Faulk commented on when IC is lost. He assumes that cleanup will be done so completely that in 50 years we'll have active institutional controls. He said the assumption is people will forget about them. In reality the remedies will fail and there may be an active presence out there for a lot longer and at some point the government will lose track.
- Greg deBruler asked Dennis Faulk about the vadose zone contamination. Greg expressed concern that groundwater will not be adequately monitored. Dennis agreed but commented that assuming institutional controls in perpetuity means cleanup might not be as complete. Greg deBruler continued that relying on institutional controls is not wise; we should be characterizing the groundwater and understanding the risk, not allowing the institutional controls to be the catch all to deal with all the contamination later that we may not even know about. Moses agreed. For groundwater there is a GW buffer zone based on regulatory points of compliance. It is also based on the release rate of the contaminant. Greg countered that cleaning to a surface area, should include down to the groundwater. Right now it's detached – surface cleanup, groundwater cleanup, and nothing in between. Hopefully we should not model the problem away. How are we going to integrate that? Moses said we cannot separate them, we have to calculate how to integrate them, and the regulations guide this. Mary Todd said to keep in mind that this process is to develop ways to look at Risk Assessment. When I do a feasibility study, I have to have a metric to calculate the risk.

- Pam wanted to return to the points made by Robin and Greg about technology development. She shares their concern about the institutional control plan. Triggers to go back and look again must be tied to specific waste sites to ensure funding from DOE. John Morse clarified that he was talking about technology for better institutional controls. Pam's question is how will DOE put in place regulations that require going back to individual cleanup sites that we currently do not have the technology to cleanup. Beth Bilson commented that DOE has a requirement under CERCLA to reevaluate every 5 years, including whether new remedies are available now. Every ROD is revisited a minimum of every 5 years. Last year the first 5-year review was conducted.
- Shelley commented about the 200 Area and asked what are we going to do in terms of monitoring? Especially if the point of compliance is 20 years north of this plume and we are unable to take back what has already traveled? Moses said points of compliance are triggered with action points. Action monitoring levels must be set close enough to the plume so that it will be known if certain concentration levels are exceeded.
- Robin Klein asked about the Passive Controls period and expressed concern that public access is dependent on land use objections. Robin thinks there should be another phase or that public access description should be within the Active IC period. Mary Todd responded that it was important to protect cultural and natural resources and there was consensus that there would be general public access, although they would try to keep those areas not residential. Dennis Faulk said that 150 years from now we would not be able to keep people out of the sites. At some point in time people will probably intrude. It's necessary to build those kinds of intrusions into the analysis. Moses added that under risk assessment, you make an assumption of the types of land uses at some time. The group assumes there will be controls, but there is a chance the active institutional controls will be lost and fences might be gone but the engineered structures might remain. We are saying that general public access is possible, but deterred. The risk assessment takes into account the worst possible scenario, inclusive of human and ecological. Larry Vedder said cleanup scenarios include ecological risk. Moses said the Core area is always going to be protected, but the rest of the plateau could be industrial land use and mining, some industrial uses – depends on the use for the land, and that's how we start calculating risk
- Jim Curdy commented that people have asked to find specific sites and asked if there is a record where the specific sites are made so people can know where things are. Also, are the dangerous spots being monitored continuously and how long will they be monitored, and are you looking at water at different depths? And are there records of Native American burial sites? Moses answered yes, DOE is recording the burial sites, each associated with a burial unit. If new sites emerge or come up, those are also added to the database. Groundwater monitoring is happening and will continue during institutional controls or as long as there is contamination. Dennis Faulk said the tribal burial grounds are known but they are sacred so only a few know where they are.

Moses explained that the assumptions will be given to risk specialists and translated into risk parameters for exposure scenarios, duration, and frequency to be used consistently

across the site. Dennis Faulk added that the group would like the HAB and tribal nations to make recommendations on the correct process for this effort.

Greg deBruler asked for the discussion and timeline for setting the exposure scenarios. Dennis Faulk answered that first this discussion must be continued with the full HAB, and if there is adequate information, the group can take it to the broader public. If not, then there will be a formal public process (30-45 days of public comment) to accompany the CW1 feasibility process. Greg pointed out there are three processes related to this topic: 1) C3T, 2) the Risk Framework group, and 3) a separate discussion of Central Plateau end states. He reiterated his request to Moses for a timeline about public participation. Moses said his group would develop guidance on risk framework to be used consistently across the site. The guidance will be exposed to the HAB, tribal nations, stakeholders, other parties, and possibly go out for public review.

Committee Discussion

- A committee member commented that setting exposure scenarios under MTCA requires assessing the public values through a full process. There are entities missing from the HAB, such as the National Marine Fisheries Services, Corps of Engineers, and agricultural interests, so to develop exposure scenarios, there needs to be a full-fledged public process, but there is not time to put together this information. He recommended that the HAB recommend the Risk Framework group develop a process, which may include delaying their milestones.
- Is there a public process associated with the possible refinement of the CLUP? Moses said it depends on the changes. Expanding the buffer zone to include waste sites is a temporary land use or zone that will collapse when remediation objectives have been met, so the relevant ROD must be evaluated and then it would be decided whether public process is needed.
- What type of decision-making is associated with the timeframes and risk scenarios? Dennis answered that this is being done in support of the CW1 work plan, due March 2003. The feasibility study and plan will be put out for public comment. Traditionally the agencies present the feasibility study and then refine it; this effort is meant to engage the public in advance. He would like to take the HAB through a workshop on this topic. He was not sure the agencies could engage in a useful dialogue with the general public yet. He requested the HAB's assistance to frame the larger discussion. He views the effort as a continuation of the work of the Future Site Uses Working Group.
- A committee member was disturbed that the HAB keeps postponing the end states discussion. Gerry Pollet reported that he and Todd Martin had attended the C3T meeting, and had clarified the HAB's goal is not to issue an opinion on end states, but to develop a road map for risk assessment methodology and determining how to get appropriate public notice. The HAB should provide the roadmap, not provide substance.
- The committee expressed concern about how decisions about remedy selections are made, which includes risk scenarios, land use plan, etc. How can remedies be selected unless the end state has been defined? A committee member said remedies must be based on the exposure scenario and land use. The driver in

cleanup decisions is the risk assessment and exposure scenario, which is where public input and values must be considered. Early input is crucial to public policy decisions.

- A committee member requested the Risk Framework presentation for the November HAB meeting. She feels it is incumbent that the HAB serve as a vehicle for larger public participation. She suggested using the FSUWG and CLUP as the basis for this work.
- A committee member suggested a Wednesday night session in which the TPA agencies could develop a timeline of what events need to happen and when.
- Pam asked for clarification about the 100 Area Record of Decision (ROD). Moses said there are interim RODs and Greg is talking about the overall 100 Area ROD.
- Dennis said he believed there was agreement to negotiate final schedules for 100 and 300 Area cleanup in order to know what we're shooting for. He said that's the appropriate avenue to those discussions. In the 200 Area we are not even at the interim stage.
- Greg said we can't even agree on final ways to finish up in the 100 and 300 Areas. That would help us deal with the complexity of the 200 Area. That's why we need a separate task force. The simple thing is to have Moses flush out the discussion and a roadmap for public values for his piece.
- Susan Leckband asked that somewhere in the HAB discussion or workshop it would be good to know how exposure scenarios fit in with risk assessment. They are related but seem to be treated different. Moses offered to make that presentation.
- Doug Huston said that's where the public needs to be involved, to identify exposure scenarios.
- Maynard Plahuta said identifying these questions and concerns probably helps this process. He suggested the HAB should be more proactive about providing those questions and concerns and then ask for a status input. Rather than deal with the task in November or December, the HAB should give continuous input. I also think the future land use is the bottom line and we should reach that as soon as possible. Let's look at what the FSUWG came up with and revise from that.
- It was suggested a map with the land use plan the FSUWG findings be prepared.
- Gordon Rogers commented that FWUWG and CLUP irrevocably established the ultimate land uses for the River Corridor and 200 Area Waste Management. He said these CERCLA, RCRA, and MTCA processes say the first step is to define and agree on the land use and those steps have been taken. Further, the regulatory steps proceed from there to establish protectiveness. He suggested getting on with the standard regulatory requirements, which leads to the work Moses and others have done.
- Doug Huston asked on behalf of Dirk Dunning about the regulatory framework. Doug suggested including a discussion of the various regulatory orders and how they differ.
- Ken Bracken expressed concern of Bechtel Hanford, Inc. (BHI) involvement. He suggested addressing how and why the programs are important.

Penny explained to the committee that there are three questions the facilitators are asking each committee this week: 1) For the bigger HAB process on end states, what are the questions the HAB needs answered. 2) What are this committee's areas of concern regarding this fuller discussion? 3) What work has or is this committee doing regarding the Central Plateau and end states. She also reminded the committee that all five committees would have input into the content of the November HAB meeting, and that the committee should not make assumptions yet about the board meeting.

Ruth discussed what other committees that had already met had suggested be included in the November board meeting. The Budgets Committee had a shorter list dealing with baselines and money, and they focused on the C3T process. The Health, Safety and Environmental Protection (HSEP) committee was looking at risk issues and trade offs and the need for common definitions.

- Pam expressed concern that the committee wasn't ready to talk about end states, and Ruth explained that the direction for the November board meeting from Todd is to get 1) an identification of the work the Board wants to undertake about when do you know you're done and 2) what is the process the board should use to do that work – which could range from standing committees to a full blown task force.
- Dennis reiterated that the agencies have a need to know if the Risk Framework work is on the right track or not, and if not how do we get there.
- Shelley Cimon commented she thought this is a good path forward. She's concerned and wants to talk about technology needs, getting funding for technology, and how it limits the decisions we can make.

Gordon and Pam requested a placeholder on the November HAB meeting to talk about Site Technology Group Coordination (STGC), and the process the site uses to prioritize technology.

Institutional Controls Plan

Susan Leckband introduced Jim Daily, (DOE-RL), the manager in charge of the Institutional Control Plan. He had distributed the IC plan already and now has the same team working on the Long Term Stewardship (LTS) plan.

Jim reported they are at the mid-point of developing the LTS plan, which is an integrated, site-wide long-range plan. Jim reiterated the document was very rough, as they were following the philosophy of engaging impacted people early in the process. Jim said they are interested in knowing if there any gaps, and do the strategies look good. The context for the plan is that it is a long-range plan for the site. As we approach a larger group review, the document will be smaller, because this version includes an appendix of the workshop. The structure of the document begins high-level, stating the key outcomes, goals, strategies, etc. The main points from the LTS workshop were included, but the details are in the Appendix. The team is taking a hiatus on the LTS plan while it is reviewed, and they are working with EPA to meet their needs with regard to the

Institutional Controls (IC) Plan. The current document is good to comment on, but EPA has specific needs DOE is trying to meet. There is only one crew working on the two documents so they have to go back and forth.

Committee Discussion:

- What does EPA want changed? Jim replied they want current institutional controls identified, and a skeleton plan of the land exchange, so that will be included in a separate chapter on future stewardship activities. They also wanted an idea of what to look for during an annual review.
- Pam suggested Jim Daily attend the Central Plateau day of the November HAB meeting. Penny will make sure Jim Daily receives the HAB agenda.
- Ken Bracken asked if the 50% draft is being given to the relevant programs, specifically ILAW with tanks? Jim said there are 35 representatives in all the programs and they are looking at this in parallel. The crew that put this together did the best they could do to synthesize information. Jim tried not to tamper with it; not everything is completely correct because they're not from Hanford.
- Wade asked about integration with guidance from DOE-HQ. Jim Daily answered that his crew started with their guidance document but it was almost an IC manual at the procedural level of detail. DOE-RL wanted to plan a big picture first and then do the details. DOE-RL found the HQ document useful and honored their content and intentions, but it did not fit as well with the LTS workshop input.

Jim reported that Jessie Roberson, EM-2, had eliminated the requirement for Long Term Stewardship plans, but that does not matter to Hanford – it is still required here and is useful. He explained that Long Term Stewardship was still required; it was just the separate document that was no longer required. Instead it would be integrated into Long Range Planning documents.

Jim said this exercise was very timely because this effort is tied into the 200 Area Risk Assessment work being done by Moses. Simultaneously, there is Keith Klein's strategy to shrink the site, and Fish and Wildlife are also planning their comprehensive land resource plan for the national monument. Additionally, the C3T process is ongoing. The LTS plan is intended to integrate all those, even though the requirement from DOE-HQ is no longer there,

Committee Discussion

- Shelley asked why did Jessie Roberson she cancel the requirement? Jim said she said LTS should be integrated into long range planning.
- Wade reported that the tribes were asked for input and the tribes put a lot of effort into the LTS process. The Yakama were surprised at the decision.
- Maynard asked if this would be a living document? Yes, there is still a lot of work going on with closure among Department of Defense (DOD), Air Force, and others that we can tap into, and that can help when updating.

- Gordon asked if EPA had any long range planning in effect, or long term stewardship for chemical or toxic waste? He said he was concerned that EPA wasn't setting any standards. Jim Daily didn't know. Dennis replied that EPA Region 10 has come up with the concept to do Institutional Control plans that follow CERCLA and RCRA. You'll see Operations and Maintenance Plans and Monitoring Plans, but not IC plans.

Susan shared information she received from Max Power regarding the Weldon Springs cleanup site and their long-term stewardship plan. Weldon Springs is a DOE cleanup site in Missouri (mostly chemical, but some low level waste). The documents Max sent her included a response by the State of Missouri to the proposed LTS plan. The state was very dissatisfied with the DOE LTS plan. She noted the Weldon Springs site is about a year away from closure. She suggested this case could be a good tool, that LTS will take constant attention, and when you review this documents, keep in mind that there isn't a dollar amount attached to it. The Weldon Springs people are at the end of what we can't see yet, but they didn't have as much public involvement as deeply or soon as necessary.

Jim said the DOE perspective on the enforceability issue is that there are two pieces to LTS – the regulated portion driven by CERCLA and RODS, which are enforceable for safety-related controls; and the speculative portion about where should we be going? For example, as a taxpayer you wouldn't want an enforceable requirement that we would work with Kennewick High School to write a plan on LTS. Any time you have an enforceable requirement, there are dollars that go along with that. Our budgets are requirements driven, to some extent. We have made two documents – the appendix for IC plan and ideas we want to go forward with.

- Pam asked if the Weldon Springs concerns are in the wishful area. Jim said he didn't know, but he suspects they're mixing IC issues with longer-term non-enforceable issues.
- Dan Simpson asked if issues could be enforceable just because they are put in the contract. He noted that Jim didn't mention the Atomic Energy Commission or the Nuclear Regulatory Commission (NRC) or MTCA or TPA. Don't these have enforceable requirements?
- Wade noted that the closest tie to requirements is the ROD for the 100 Area that sets a need for institutional controls. Jim said that Mike Goldstein told him that the last issue of MTCA spent 2.5 pages on IC-type language.
- How is the monument group getting integrated? Gordon reported that they're still getting organized. Harold Heacock is on that committee.
- How can you write an institutional controls plan when you don't know what the end is? Jim Daily answered that the regulatory part of this is futuristic because we don't necessarily know the end states. We've attempted to bracket the answers, in the range of zero activity to heavy industrial area. If there is no activity, who monitors it? In the plan we included once a month perimeter walks and inspections. We think the LTS process helps stimulate the answers. We give them the opportunity to think through long-term effects of their actions.
- One key consideration is land release, and how the Fish and Wildlife Service would take on a part of the site with residual contamination.

- Jim Curdy commented about the National Monument. He said the plan says lands pre-planned are exempt from the monument. There are concerns about ownership of land, and DOE considering turning over control of some lands to the Fish and Wildlife Service. Jim discussed concerns about loan paybacks and other debt instruments that are tied to the Columbia Basin Reclamation project that would be affected if DOE releases lands and reduces their payments to counties. If the land ownership conditions are changed, that would violate a treaty that has been passed and signed by the president and congress of US. Jim offered to provide documents to any interested in following up on the issue. A sign up sheet was sent around for people to get copies of the document. Pam suggested another committee take up Jim's issue. Jim said a lot of people attend the public meetings. He offered to present the information at any time, and Pam suggested scheduling an evening session at a future HAB meeting.

The next step for committee members is to review the document and prepare for additional information after the comments are incorporated and we're given another draft to review. Jim said that the next draft will request official comments, but it's several weeks away. Susan will check in with other committees to see if they wanted to be involved with reviewing the LTS plan. The HAB has an opportunity to look at this document to add some teeth. It's incumbent on us to read this with these questions in mind. Is it enforceable? Susan reported that EPA has indicated that it will put the IC plan out for a 30-day comment-period around November or December. Susan asked Jim about his expectations for comments on the draft LTS plan. Jim would like comments by November 7th. He will also ask for feedback from other LTS workshop participants. Susan said HAB advice in this timeframe is probably not necessary; comments are up to individuals.

Susan will let the committee know when it needs to meet on this topic again. In the meantime, comments should go directly to Jim. Susan anticipated an update to the HAB in December.

Environmental Restoration Disposal Facility (ERDF)

Dave Einan, EPA, presented information about a proposal to expand ERDF to continue cleanup and to convert part of the working space into a staging area for remediation. The primary example driving this is the drums that were found in the 300 Area with uranium chips and oil. They want to dig those up and get them out of the ground, but there is not yet a long-term solution. They believe they will probably find more waste like that in burial grounds across the site, and they would like to stage that material at ERDF. This would get the material into the hands of Waste Management people and would get it away from the river, so it would be less likely to be threatened by future wild fires. We call this a "staging area" because we don't want to get into the storage business.

Committee Discussion:

- Ken Bracken said calling it a staging area is just changing titles. Dave said they are waiting for Allied Technology Group (ATG) to come online in order to be able to complete disposition of these drums. The expected average duration of the staging is about two years, hopefully less.
- Keith Smith asked what the staging area would look like. Dave said there are two concepts of what it will look like. Initially there could be compacted gravel. Some drums are 55-gallon metal drums and could be put in plastic overpacks. Some that are already in overpacks must go in something else but there aren't drums made that are big enough. Bechtel came up with a concept of polyethylene boxes used for macro-stabilization of lead, which could allow them to be inspected. They would be sitting out on compacted gravel or concrete.
- How many drums are there? About 1500.
- Would these go in the trenches? No, they would be staged in an area next to the operations office.
- How much space would it take? Jeff James, Bechtel, said it would take about 2 acres, to accommodate the 1500 drums. This ROD amendment would provide staging on an "as needed basis" because there are unknowns about what is in many burial grounds that are yet to be dug up. The preference is not to store them at the original location, but rather to get them away from vegetation, and keep them in a centralized, controlled area. It might be two years for any one waste stream.
- Is this new waste? Dave Einan said it is waste being exhumed from the burial grounds. Jeff James said it would have to be characterized before being accepted into the staging facility. This is a better way of dealing with the waste.
- What type of waste is there? The first barrels contain mixed and low level waste. Dave Einan said EPA would use requirements out of RCRA to give DOE directions about how to clean up.
- Does ERDF take mixed waste? Doug Sherwood, EPA answered yes. This is a better solution than leaving barrels out in the dessert for a long time. Centralized staging and treatment makes sense and needs to be an option for us to have. If it's more effective to leave it in the field until treatment, we'll do so. This action just gives us another option; we are not changing any rules. This is all still CERCLA waste.
- Has this been coordinated with Ecology? Yes. Half of the 100 Area cleanup is their lead and they think they need this staging ability also. No one from RCRA, EPA Region 10 has a problem with it either.
- Ken Bracken asked if ATG came online in the next four to five months, would EPA move the material out of the 300 Area to ERDF? Doug said probably, since ATG would not be ready to take the waste soon enough. There are a number of other waste streams slated to go to ATG. ATG has contracts with other sites than Hanford. If everything went well it would be a year or two out before waste would go to ATG. Dave Einan added that if the timing worked out it would make sense to skip the staging area.
- Have the barrels been characterized? Jeff James said most of the barrels have been opened. The 1,500 barrels estimate is based on some geophysics where we looked at anomalies underground. We found 300 drums that looked like the corner of a big area. We used a statistical sampling plan to understand characterization. They may not all be sampled but will all be checked.

- Jim Curdy asked if it was known what was in the area. Ken Bracken clarified that they know where the site is, but that not everything in the site was characterized.
- Have you done oral histories? Jeff James said they had. The rough time period was around 1964-68. Jeff James assured the committee that when they unearth things today they make an extensive record, but forty years ago the record keeping was not as diligent.
- Is this in the original ERDF plan? Dave Einan said yes, this is well within ERDF.
- What is the timing for this? The proposed ROD will be out later this month, and the ROD will probably be signed in February.

Wade Riggsbee will serve as issue manager for this, and the item was added under the Solid Waste EIS topic in the committee's work plan.

Solid Waste Environmental Impact Statement (SW-EIS)

Mike Collins, DOE RL, reported that DOE got all the information they needed from DOE-Headquarters, and they should revise and give it back to them in November. They have a commitment to get the EIS out in April, and they hope to accelerate and get it out by February.

Committee Discussion:

- What exactly were you working on? Mike Collins said DOE-HQ thought the EIS was too Hanford-centric. They wanted us to consider other sites. Right now it includes information about the amount of land required to deal with how much waste DOE will send to us, but we can't release that since it is not agreed on yet. We have an ongoing discussion on how much waste will be sent to Hanford.
- Isn't examining the holding capacity of the land part of the EIS? Yes, we have done that.
- Ken Bracken recapped that DOE has an internal dialogue about the amount of potential waste that would come to Hanford and can't come to agreement on this. Mike Collins said DOE-RL wants to examine reality, not the bounding. They are submitting several different cases, which is why there is a hold up. DOE-HQ thought the bounds we were providing were too small; they didn't want Hanford site's EIS to contradict the Programmatic EIS, which came out in February 2000.
- Are the Yakamas involved? Mike said yes, about a year and a half ago, but not in a while. We need to get them plugged back in.
- Susan Leckband stated regardless of what public values the HAB has made clear to DOE about the cumulative effects of waste, it makes no difference to DOE-HQ if they've made decisions to ship waste here. Do local officials have no say in the amount of waste that comes here? Mike Collins said DOE-RL influences that but does not have the final say. Regarding holding capacity, Hanford can accept a lot more waste than is out there.
- Dave Johnson asked if there would be more waste coming after Hanford cleanup is done. Mike Collins said DOE-RL is looking at dealing with capping of all burial grounds by 2026.

- Ken Bracken asked if there was a comparable EIS done at Nevada. Mike Collins did not know. Ken thought both should be similar, other than geographic considerations. Ken thinks if DOE wants flexibility, that should be built into Nevada's EIS, also. Ken would like DOE to be fair between Hanford and Nevada. Mike said the ROD said two regional sites could accept low-level waste – Hanford and Nevada. Ken thinks there should be a comparable level of waste for Hanford and Nevada regarding the P-EIS.
- Maynard asked whether Doe-HQ has had a broad scope at Nevada. Mike Collins can't answer the question, said it's a question for George Sanders and his team.

Pam suggested that Issue Manager Wade Riggsbee look into the Nevada EIS question. Wade said the tribes were supposed to be looking at things, but they're out of the loop now. Wade has engaged in several issues with the Nevada Test Site (NTS), so he wants to see where it will go.

Pam expressed frustration at the entire Solid Waste EIS issue. The committee is concerned about the holding capacity of the land versus how much waste is coming here and whether that's all right.

Regulatory Perspective

Max Power, Department of Ecology, reported he has not been involved in the scientific analysis. He said the Programmatic Waste Management EIS was not an adequate basis to make site-specific evaluations. Ecology understood as early as 1994 that a site-specific evaluation at Hanford was needed. Ecology is still waiting for the draft EIS. The last administration tacitly accepted the state's position about not accepting new waste. Ecology and Nevada were promised that DOE would talk to us, as recently as Friday we still haven't been talked to and neither has Nevada. We're still in the dark.

- Pam asked if Ecology has any info about Nevada's EIS versus Hanford's? Max said Nevada did do a site EIS around 1997 or 1998. They do have an EIS and a ROD locally. The other site, Savannah River, had a site wide EIS for disposal and after the issuance of the P-EIS their RODs were allowed. Most of the other sites have some kind of specific NEPA analysis, but at Hanford we do not have one.
- Pam said she had visited NTS. They had underground detonations, and at most places there would be resulting cave-ins and craters so there is massive contamination. When they fill in the craters there is no liner since any contamination is already there. The type of analysis NTS would do is very different than Hanford's.

Transuranic (TRU) Retrieval Environmental Assessment

Todd Shrader, DOE-RL, described the purpose of the EA. It looks at retrieving TRU in the 200 Area, where the vast majority of TRU is stored. The scope of the EA is post-1970 TRU. There are about 38,000 containers. Doe-RL thinks about 50% is low level waste. TRU comes out of the trenches, goes to Waste Receiving and Processing (WRAP), and then goes on to the Waste Isolation Pilot Program (WIPP). Low-level waste stays in the burial grounds. Some of the designation work will be done in the trench.

The EA is needed now because DOE-RL needs to start on the work to meet milestones. We are in the internal review, and it will go out for public comment probably within the month.

Committee Discussion:

- Dan Simpson asked whether the safety analysis report had been completed? No, we are trying to finish it by January.
- Is there any discussion of the M-91 facility in this process? No, this is strictly an EA.
- What kind of screening process is there before sending to WRAP? It is either process knowledge or an assay. We are saving the assay for the ones we're not sure about, based on our records.
- Does WIPP have you inspect or open packages? Yes, and there can be no pressurized containers. We have to meet the waste acceptance criteria before going to WIPP. Our suspicion is that the older you go, the records are less accurate.
- Will the next EA be for Remote-Handled TRU (RH-TRU)? RH-TRU is outside the scope of this effort.

Committee Business – Work Plan

Plutonium Finishing Plant (PFP): Pam asked if there is any information on the PFP TPA negotiations. Max replied there is nothing currently. A focus sheet should be available soon. He thought they're working on an Agreement in Principle. Rick Bond can provide a better update. Max thinks it would be appropriate for the November committee meeting. Susan Leckband would like the discussion to include Savannah River balking at receiving any more plutonium and the potential impacts to Hanford. Doug will ask Dirk (Issue Manager) to follow up on Savannah River issues.

Environmental Assessment on Burial Grounds Expansion: Doug Huston asked if a decision had been made yet. He said at the last committee meetings and full board meetings, they heard that it was a regulatory nightmare. The committee decided to include the issue on the November agenda.

Heightened Security Impacts: Susan Leckband asked whether the heightened security would bring any slow down in cleanup. There are shipment issues, and Dan Simpson thought there could be safety impacts. Doug Sherwood provided the example of transporting materials from 618-4 that we could treat before disposing to ERDF (uranium oxides). They had to have armed escorts and the road closed. This is radioactive waste, there is no attractive value. The committee discussed putting security issues on a future agenda. Penny reported that this is an issue with clear crosscutting implications, and other committees may also be looking at it. The committee discussed whether it belonged in the HSEP or as a presentation at the November Board meeting. Penny suggested each committee; on their committee call might think about how to frame it.

National Monument: The committee will also ask Harold about the advisory committee and its progress.

Canyon Disposition Initiative (CDI): Gordon reported the feasibility study on the CDI is out. It analyzes alternatives but does not propose a recommended one. Doug Sherwood said the proposed plan isn't out yet, just the technical basis document. There are still discussions among the agencies about the preferred alternative, and they haven't reached full agreement yet. The alternatives will be selected from in the feasibility study and there are two at the heart of the debate – alternatives three and six. He advocates for three. The real debate is over how much and what kind of waste to put in the canyons. The feasibility study is weak in identifying sources to go in the canyons. It needs real volumes and an assessment of what will be needed.

Shelley asked if this is this related to tanks? Doug said yes, many issues haven't been resolved to anyone's satisfaction. Alternative six says just fill up the lower part of the canyon, which will supply 1,000 cubic meters for waste coming from outside the canyon. Filling the canyon more full ends up with 10,000 cubic meters of waste we can safely place in the canyon, which is most costly. One case is small volume disposal and disposition in a canyon, which doesn't gain much for the cleanup project. Other case is whether we need the additional capacity. There are a number of factors to consider. Time-wise, we hope to resolve these issues in the next few weeks to months. If we want to clean the River Corridor on a fast schedule and we need that capacity for high-level waste, then we need to step back and see how long.

Maynard asked how many canyons does this concern, and Doug replied just U plant. He said Redox should just be dispositioned, and T plant may have another mission to treat waste. Gordon will continue to follow the CDI.

300 Area: Gordon said Fluor Hanford, under the accelerated cleanup program, is starting to demolish some unused facilities. The committee will ask for a briefing on the 300 Area work at the next meeting.

Systems Assessment Capability (SAC), Revision 0: Gordon discussed the SAC, and said they are trying to match history of the plumes reaching the river to what the model would show for the estimated inventories. The model says it comes through too slow. There are substantial questions on the validity of the various sites. Gordon thinks it would be a good idea for an update item on a future committee meeting. In general the SAC is favorable but it is still a long way from any usable model. The committee suggested a 30 minutes update.

C3T: Doug Huston mentioned the C3T people might have a draft AIP in two weeks. He suggested keeping it on the radar screen.

Committee Responsibilities for Central Plateau work

Penny repeated the questions each committee is being asked. What does the Board need to know to take on the Central Plateau work, what are this committees specific concerns related to the issues, and what work has the committee done or is doing that would fold

in. The goal of the November board meeting is for the board to determine the issues the board should be taking on, and the process it will use to tackle the Central Plateau. That process decision will determine the roles of the committees, and define the work to be done.

- Ruth reported there have been concerns about integrating the Central Plateau and the 100 and 300 Areas.
- Pam suggesting starting the Board meeting with Moses' presentation this morning about risk assessment, geographic area and definition for the core and buffer area, timeframes for institutional control, and public involvement for all of the above.
- Gariann suggested including integration of the Risk Framework for the 100, 200, and 300 Areas.
- Susan added schedule awareness regarding integration (slow down and speed ups), and integration between RL and ORP.
- Pam asked whether this process is starting with the Hanford Land Use EIS, the CLUP and the Future Site Uses Working Group study. Her concern is to not start over.
- Shelley suggested technology gaps as a question to be answered.
- Dan Simpson brought up the contents of the Core Zone.
- Pam said the distinction they drew was that the buffer zone would have waste mitigation, but not waste management stuff. They have defined a boundary.
- Other issues mentioned were regulatory framework/overlaps, issues with SW-EIS, top down review, how to deal with individual operations and facilities in the Core Zone, Tank Closure Plan, points of compliance about soil cleanup, groundwater, brings in issues of monitoring, time, the ability to retrieve plumes, site infrastructure

Under work the committee has done or is doing, the committee identified Long Term Stewardship, Institutional Controls, and the Risk Framework work.

Committee members expressed concern that the board was either taking on too big a project in the November board meeting, or that would be trying to rush to a recommendation on end states in too short a period. Penny again reiterated to the committee that the goal of the November board meeting was only to identify what the issues were the board should concern itself with, and to define the process the board will use to do its future work on the Central Plateau end states. Additionally, the board discussion at the end of the September board meeting reflected a desire for the board to deliberate and offer values and perspectives on end states to the agencies for them to consider as they move forward with decisions. That is the product the board process will be designed to develop.

Other Committee Business

The RAP committee's representatives to the EIMG call will be Pam, Dan, Gordon, Shelley, and Ken Bracken. The EIMG call is Wednesday at 3:00 p.m., October 17th.

The August meeting summary was distributed. Gordon would like to review it. The committee conditionally approved the summary, with a final check in to occur on the next committee call.

The next committee call is Tuesday, October 16 at 9:00 a.m. Penny pointed out that the Administrative Calendar is in the packet.

Handouts

- River and Plateau Committee Meeting Agenda – Central Plateau Risk Framework; October 10, 2001.
- River and Plateau Committee Draft Meeting Agenda; October 10, 2001.
- Comments on LTS Plan 50% Draft; October 10, 2001.
- The Draft Hanford Long-Term Stewardship Plan: Integrated, Long-Range Planning for the Site 50% Draft; DOE-RL; October 5, 2001.
- Informational White Paper #1 – Draft Options for Geographic Layout of Zones Within Hanford Site Central Plateau, October 10, 2001.
- Informational White Paper #2 – Draft Options of Time Phases for Risk Calculations; October 10, 2001.
- Informational White Paper #3 – Draft Potential Exposure Scenarios and Risk Assessment Inputs for Areas Within the Hanford Site Central Plateau; October 10, 2001
- Hanford Site Integration Project – Central Plateau Risk Framework – HAB-R&P, DOE-RL; October 10, 2001

Attendees

HAB Members and Alternates

Ken Bracken	Doug Huston	Gordon Rogers
Pam Brown	Dave Johnson	David Rowland
Shelley Cimon	Robin Klein	Dan Simpson
Jim Curdy	Susan Leckband	Keith Smith
Greg deBruler	Maynard Plahuta	Dave Watrous
Gariann Gelston	Gerry Pollet	
Jim Hagar	Joe Richards	

Others

Michael Collins, DOE-RL	Dave Einan, EPA	Bruce Ford, BHI
Jim Daily, DOE-RL	Dennis Faulk, EPA	Jeff James, BHI
John Morse, DOE-RL		Nancy Myers, BHI
Todd Shrader, DOE-RL		Barry Vedder, BHI
Manny Van Pelt, DOE-RL		Tom Wintczak, BHI
Steve Wiegman, DOE-ORP		Mary Todd, CHI
		Kim Ballinger, Critique, Inc.
		Penny Mabie, EnviroIssues
		Christina Richmond,

		EnviroIssues
		Ruth Siguenza, EnviroIssues
		Gloria Cummins, FH
		Barb Wise, FH
		Doug Greenwell, FH
		Sharon Braswell, Nuvotec
		Peter Bengtson, PNNL
		Susan May, WDOH

Flip Charts from Central Plateau Discussions

Committee's Areas of Concern

- C3T strategy
- Beginning process with base assumption of CLUP/FSUWG – don't start over (internal HAB)
- Tank closure plan overlap
- Points of compliance for G/W (monitoring, time, ability to retrieve plumes)
- Site infrastructure
- Time for HAB process adequate
- Define the work committee has done or is doing on C.P.
- I.C.
- L.T.S.
- Risk framework work
- Resources –
- Land use map (CLUP)
- FSUWG findings
- Discussion of regulatory processes for decision-making
 - (CERCLA, MTCA, RCRA, etc. NEPA, 10 CFR – relationship)
- Moses' framework for seeking consistency – what flexibility is being included
- Trade-offs
- Technology gaps & how address
- Discussion of top-to-bottom review – timeline for decision-making
 - How relate?
- Public process (inclusive) regarding guidance for risk assessment/exposure scenarios
- Definitions – end state

Questions to be answered

- Risk Assess
- Geographic definitions = what is the public involvement process?
- Time frames/I.C.
- Integration (100, 200, 300) of Risk Framework
- Schedule awareness, re: integration & (slow downs/speed-ups)
- Integration between RL & ORP
- Trade-offs
- Technology gaps
- Regulatory framework/overlaps
- SW EIS issues
- Top to bottom review
- How to deal with individual operations & facilities within the core zone
- How effectively communicate with...impact HQ?

November HAB

- Request Moses' presentation
- HAB needs to be vehicle for larger public process
- Todd give synopsis of C3T meetings & draw connections
- Need for Wednesday night session that informs on schedule & sequence of when things need to happen
 - Including value of this process to other programs
 - How/why important
- Risk framework – committee piece
- C3T process
- End state discussion (greater)
 - Task force?

- 100 Area ROD (final)
 - What is end state/exp. scenario
 - I.C.
 - Include other people
- Have Moses bring a roadmap of how to get public input
- ID how exposure scenarios fit in with risk assessments

EPA Needs:

- Is this risk framework on the right track?

R & P Parking Lot

- 100/300 AREA ROD
- A.I.P. (Agreement in principle)
- Waste from other sites
- Plan to develop technologies to reduce reliance on institutional control
- Integrating surface – vadose zone – groundwater
- How capture/institute triggers to go back to see if can clean up better if/when new technologies are available