

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE**

*October 9, 2012
Richland, WA*

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

Opening*

Pam Larsen, River and Plateau Committee (RAP) Chair, welcomed the committee and introductions were made. The committee approved the August meeting summary.

Susan Hayman, EnviroIssues, explained a new “Things to Consider” poster that will be brought to all future committee meetings. The purpose of the poster is to help guide committee discussions and to remind members what type of feedback is most useful to the agencies.

Update on the 300 Area waterline breaks

Peter Bengtson, Washington Closure Hanford (WCH) and Tom Post, U.S. Department of Energy-Richland Operations Office (DOE-RL), with input from Mark French, DOE-RL, provided an update regarding the waterline breaks in the 300 Area (Attachment 2). The committee was interested in learning how a waterline break at Building 308 in August may have affected an open excavation at the north side

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

of 324 Building and B-Cell contamination. Peter explained that excavation work was being done at 308 Building to create a ramp down to the reactor when the excavator hit an underground waterline connected to the fire hydrant system. Approximately 100,000 gallons of water were released. DOE's main concern was water flowing into the open excavation at 324 Building and seeping under B-Cell. Crews were able to cover the leak with the excavator bucket and place a berm around the area. It took approximately 70 minutes to shut the water off due to the complexity of the system. The break was isolated and repaired the following day.

At 308 Building the ground slopes toward the river and there is not a path for water to flow to the north side of 324 Building. In addition, the pooled water subsided quickly, indicating the absence of a perched layer that could potentially drive the water laterally. DOE and WCH have been in close communication with ground water experts and the frequency of well monitoring has been increased. So far there has been no indication or expectation of a change or increase in contamination related to the break.

Committee Questions and Responses

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

Q: Was the excavation area mapped before digging began?

R: Yes, ground markings were placed prior to the start of digging; however, after excavation work was underway and the side slope was removed, the markings were destroyed. In addition, during excavation work there was a turnover of contractors. There is a process designed to keep contractors from striking underground utilities. There was a failure of work process and management that caused this issue to occur and DOE and MSA are working to make sure this does not happen again.

Q: How has monitoring frequency increased?

R: Monitoring was increased from semi-annual to monthly. However, this increase was made earlier due to a smaller, age-related leak in a carbon steel water pipe located on the south side 324 Building that occurred in May of this year. Due to the recent waterline break, the duration of monthly monitoring was extended.

Q: Is there existing contamination at 308 Building?

R: 308 Building has been remediated so the excavated hole was clean and water filtered through clean dirt. The soil is primarily cobble in this area with no clay lenses that would suggest lateral movement, so the water went straight down. There has not been any indication that contamination has been transported into the groundwater.

Q: Why has the excavated hole at 324 Building not been filled in?

R: The open excavation was serving as the access point for placing probes into the soil. A passive/active neutron measurement test was conducted to see if conditions changed. Data has been collected and the tubes have been sealed. The hole is currently being backfilled so by next week, water entering the excavation site should no longer be an issue.

Q: Did new groundwater monitoring discover changes in the well condition?

R: All of the wells in the 300 Area displayed a change in water level due to high river levels this year. Because of the rise in groundwater elevation an increase in uranium levels was observed in some of the wells associated with remobilization of uranium in the vadose zone.

Q: Is the new well at 324 Building sampled monthly? What type of monitoring is being done?

R: Yes. All samples are sent to the lab for analysis. Sampling went to a monthly schedule due to a small leak on the south side of the building that occurred in May. Monitoring for total beta and Gamma energy analysis (GEA) is being done. Testing is not done for the full suite of isotopes.

Q: Has the carbon steel line on the south side of the 324 Building been removed?

R: Not yet. The line is scheduled to be isolated and replaced this spring.

Q: Will the waterline at 308 Building be removed?

R: No. The line supplies water to the 300 Area.

C: The buildings and ancillary systems in the 300 Area are supposed to be torn down, not maintained. This is having an effect on costs.

Q: Are there more risks associated with buildings not being torn down? Is there more excavation work planned at 324 Building?

R: There are always risks with excavating and working around active utilities. Additional excavation work will not take place at 324 Building until remediation is done.

The committee was appreciative of the update and thanked DOE-RL and WCH's for their due diligence in handling the waterline breaks at 300 Area.

Natural Resource Damage Assessment (NRDA) Injury Assessment Plan

Hanford Natural Resource Trustee Council presentation

Larry Goldstein, Washington State Department of Ecology (Ecology) and Hanford Natural Resource Trustee Council (HNRTC) Chair, provided an overview of the HNRTC and their role in cleanup and restoration efforts at Hanford (Attachment 3 and 4). The Natural Resource Damage Assessment (NRDA) is a procedure under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that was established for the purpose of restoring natural resources injured as a result of the release of hazardous substances. Larry explained the three-step NRDA process, including the Pre-Assessment Phase, the Assessment Phase and the Post-Assessment Phase. The HNRTC is currently in the Assessment Phase and is developing an Injury Assessment Plan (Plan) to identify and quantify natural resource injury and losses of resource services.

The HNRTC is interested in learning if the Plan is of interest to the HAB, if it is understandable and comprehensive, and if it addresses community values. Larry noted the draft Plan will be available for public comment on November 16 with a public meeting tentatively scheduled for December. Comments can be submitted directly to Larry.

Agency perspectives

Tom Post, DOE-RL, said he is in the process of transitioning into Dana Ward's (DOE-RL) position as DOE's Representative on the HNRTC following his retirement. DOE is encouraging public involvement on the Plan and hopes the meeting in December will be well attended.

Committee Questions and Response

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

Q: How much does the NRDA process cost each year?

R: The cost varies but it is approximately \$2.4 to \$3 million each year, including funding staff and research.

Q: Does the Injury Assessment Plan only include natural resources under CERCLA?

R: The case law is mixed. Some say the Plan should consider resource injury prior to 1981 and others say they should be excluded. However, it is clear that if the damage occurred before 1981 and continued after 1981 then resource injury can apply.

Q: A lot of facilities were demolished before 1981. Are those included in the analysis?

R: This is controversial and remains to be determined. HNRTC wants to be conservative as it approaches the NRDA process.

Q: How long is the plan?

R: Approximately 175 pages, not including appendices.

C: It would be helpful for the Board to learn more about the Plan in November, or at least see a table of contents to better understand what is included in the Plan.

R: The Plan will still be a draft by then, but Larry will provide an update. The final Plan will not be available until January (after the comment period closes).

Q: Do you have discerning voices?

R: Yes. There are many different constituents. The Council is working through difficult issues, particularly with the tribes, but Council members feel they are doing a pretty good job.

C: The Tri-City Herald would be a good contact because it is an avenue for people in this region to get information related to Hanford. Having this topic on the November agenda could result in it getting in the paper, and might encourage attendance at the Board meeting.

Following Larry's update at the November Board meeting, RAP will determine what steps, if any, need to be taken to provide input on the draft Injury Assessment Plan.

100 Area Schedule for Documents/Decisions

Chris Guzzetti and Larry Gadbois, Environmental Protection Agency (EPA), provided an update regarding the schedule for completion of Proposed Plans and Records of Decision (RODs) for 100-K Area and the 100-K Sampling Plan. The 100-K final ROD is delayed because DOE needed to get samples from highly cultural sites on the flood plain near the river and soil samples from beneath the reactor. WCH, under the direction of DOE-RL, did characterization in this area, but that is all that has taken place. Section 106 will be done to get a Memorandum of Understanding (MOU) with the tribes for cultural sites and EPA would like to see a data quality objectives (DQO) sampling plan and schedule from DOE. EPA's goal is to get the data in the least intrusive manner. Internal meetings have been held to determine how sampling should be done and then they will meet with the tribes to discuss the DQO sampling plan. DOE is trying to get 100-K Proposed Plan RI/FS out for public comment by May 2013. PIC is following this deadline.

The committee and agencies discussed these schedules briefly, but recognized that the late-breaking agenda item regarding the Tri-Party Agreement (TPA) Change Package will review cleanup schedules more thoroughly (see page 9).

Committee Questions and Response

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

Q: The Board was told the 100-K RI/FS, Proposed Plan, and ROD is delayed because of the need for additional sampling. How does this affect the timing for the other 100 Area documents?

R: There are at least two 100 Area RI/FSs scheduled to be sent to the regulators in December. However, what is agreed upon in 100-K Area will shape the rest of the RIFS, proposed plans, and RODs.

Q: What is cultural sampling?

R: It is sampling at highly sensitive sites. Soil samples are taken to characterize the waste site but EPA would like to minimize invasive sampling. A plan is being put together that the tribes will need to agree upon.

Q: Have you started discussions with the tribes yet?

R: Several general discussions have taken place over the last few months regarding sites along the river corridor, but upcoming discussions will be specific to K Area. DOE has been working with tribes to develop a process for dealing with cultural sites, and K Area is one of the tougher ones.

C: The tribes are waiting for information from DOE.

R: There is a transition between contractors currently taking place. The Hanford Plateau Remediation Contract (PRC) work scope is switching to Washington Closure Hanford (WCH). WCH wanted to get up to speed before going to the tribes. The tribes can expect to hear more in the coming weeks.

C: RAP feels uniformed about the RI/FS and Proposed Plan schedule and how things are happening for the 100 and 300 areas.

R: 100-BC is delayed approximately three years because excavation was just completed at C-7 and EPA is waiting to get more groundwater monitoring data. 100-DH (Draft-A) documents will be provided to the regulators at the end of December. 100-N was pushed out to June 2013. The 300 Area is still planned to be available for public comment at the beginning of February 2013 with public meetings tentatively scheduled for February.

Q: The F Reactor Area and WCH recently celebrated completion of cleanup. Is the cleanup really finished here?

R: Proposed Plan for the Final ROD might identify additional items that need to be done after interim work in that area is complete.

RAP will continue to tracking this topic as it relates to the coming draft TPA Change Package (see page 9). It will also begin planning in early 2013 to review and comment on the 100-K RI/FS, scheduled to be released for public comment in May.

Committee Business (Part One)

HAB Values White Paper

Hillary Johnson, EnviroIssues, provided the Hanford Advisory Board (Board) Values White Paper that was developed in April to the committee (Attachment 5) for review. The committee had previously seen the document but had not reviewed it in depth. The white paper is scheduled to come to the full Board in November. Susan H. notified the group that the Tank Waste Committee (TWC) and the Public Involvement and Communications Committee (PIC) had already reviewed the paper and provided their comments.

RAP members edited sections of the white paper specific to RAP issues. They refined some of the language to make the value statements firmer.

The group added language that there is a federal obligation to ensure the Hanford Site is returned to compliance with not only national environmental laws, but also state laws.

Committee members agreed that a value of the HAB is that the agencies make decisions based on risk, not funding. Members worry that if decisions are based solely on availability of funding, cleanup will not be done correctly and the Long-Term Stewardship (LTS) Program will be left with a dirty site and without funds for additional cleanup. The committee thought that there is a myth at Hanford that funding will always be available but this is not the case, so the budget should support cleanup to the best possible level. A bullet stating “for future cleanup, sustainable funding should be assured” was added to address this concern.

Hillary will incorporate the committee’s edits. The Board Values White Paper will be presented in final form for adoption at the November meeting.

Integration Work Group – Groundwater Vadose Zone Executive Council

Pam introduced Briant Charboneau, Soil and Groundwater Federal Project Director for DOE-RL. Briant provided a presentation to RAP regarding the Groundwater Vadose Zone Executive Council (Attachment 6), including the purpose of the Council, who participates, integration topics of interest to council members and participants, and examples of groundwater and vadose zone integration. Briant noted Council participants share new technologies and knowledge with one another, and verify each other’s sampling and testing results. He thought there has been great synergy following integration.

Committee Questions and Response

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

Q: Who are the DOE Division Directors?

R: Division Director is the new term for Deputies under J.D. Dowell, DOE-RL Assistant Manager for River and Plateau. There are two; Jon Peschong (DOE-RL) and Dana Bryson (DOE-RL). Although these positions were renamed, they are still referred to as Deputies.

Q: Were efforts to remove uranium-contaminated perched water at B Complex shut down because of funding?

R: Yes, they were shut down temporarily for about two weeks. Direction was given on October 5 to turn the pumps back on. This is a small exposed pumping area. The shutdown was similar to shutting down a sprinkler system for the winter. There was a freeze protection issue, but the pumps should be back up and running shortly.

Q: Does the water go to the Waste Treatment and Immobilization Plant (WTP)?

R: Small amounts are hauled to the Effluent Treatment Facility (ETF). DOE is looking at ways to treat it at 200 West Groundwater Treatment Facility. There is a footprint for this in the Radiological Treatment Building. ETF is a robust facility designed to treat highly contaminated waste water streams. ETF is expensive to operate per gallon, whereas 200 West Pump and Treat is a fraction of a cent per gallon.

Q: How many new wells have been dug?

R: Three.

Q: Do you anticipate hauling the water in trucks or pipes?

R: A pipe installed near the B Complex was going to be used for the B Area aquifer test to pump water to ETF but there is a need for a pipe over to 200 West Pump and Treat. DOE has installed over 200 miles of pipe in the last few months at a low cost. Desiccation tests were also recently conducted, which is a potential way of removing contamination by drying out the soil. DOE found that by removing moisture from the soil technetium-99 could be with it, which DOE had never been able to do before. This method holds a lot of promise for vadose zone contamination.

C: The idea of integrating groundwater and surface remediation is important and involving everyone in the same room should have been done a long time ago.

C: The chart on slide 11 showing recent deep vadose zone and groundwater protection activities is helpful.

R: The chart changes each year depending on fluctuations in funding but DOE is working together to ensure focus is on the right things.

Q: What was the focus of the working group? Are there lessons learned with those?

R: The working group focused on technologies and it was an information and technology exchange, but there was some discussion of lessons learned as well, such as validating problems with the tank farms by analyzing real data, i.e. a “truthing process.”

C: There does not seem to be a lot of work happening under the tank farms because the tanks and pipes are in the way. We do not have a lot of information about what is going on under there.

R: The tanks program does a lot of work under the tank farms and has been for the last ten years. Due to direct push techniques, DOE is able to go deeper and samples have been taken from over 200 feet down looking for technetium-99 plumes. Characterization work is currently happening under C Tank Farm right now; those studies are ongoing.

Issue Managers will continue to track this topic.

Updates on TPA Change Package

Agency presentation

Dennis Faulk, EPA, and J.D. Dowell, DOE-RL provided an update on the proposed changes to the TPA, including 100 Area waste site cleanup, 300 Area surplus facilities, Central Plateau Remedial Investigations/Feasibility Studies (RI/FS) and Canyon Facilities Cleanup Milestones (Attachment 7). Dennis noted that the draft TPA Change Package will be available to the public during the week of October 15. There will be a 45-day public comment period, starting sometime at the end of October.

Committee Questions and Response

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

Q: Are you still looking into putting a shell over K-East Reactor?

R: [DOE] Yes, that is the preferred path. This will be determined in the RI/FS in 2015.

[EPA]: Both K-East and K-West will have shelters. K-East is the building with contamination all around it and EPA thinks a cap is good enough in the interim.

Q: What does “30 percent design” mean?

R: [EPA] 30 percent design is the conceptual design phase. There are typically three phases of the design process – 30, 60 and 90 percent. 90 percent design is considered final. Often times Superfund projects will skip the 60 percent phase and focus their effort on the 30 percent design, in order to make changes early on in the design process.

Q: Is there a completion milestone for 324 Building?

R: [DOE] Yes, it is September 30, 2018. However, this milestone will be extremely challenging for DOE to accomplish due to highly contaminated soil under the building, but they are planning to meet it.

Q: Why is EPA not challenging this milestone?

R: [EPA] DOE came to EPA with a schedule that EPA did not believe to be appropriate. EPA agreed to review the 30 percent design first and then determine what milestone is appropriate. EPA believes DOE can make 2018.

Q: How much soil underneath 324 Building B-Cell is not highly contaminated?

R: [DOE] DOE knows where highly contaminated soil is because of sampling but it does not have 3-D mapping to determine volume. DOE looked at where B-Cell leaked and there was a small volume of soil, approximately two ERDF (Environmental Restoration and Disposal Facility) cans worth sitting about four feet below the cell that had to be handled with full radiological protection gear.

Q: What is the new proposed milestone for the U-Plant Canyon?

R: [EPA] The canyons are some of the longest-term cleanup sites. U-Plant is supposed to be completed by 2021, and lessons learned will be applied for the other four canyons. Determining milestones for the other four canyons has been pushed ten years to 2022. DOE will need to complete investigations between 2015 and 2022 and set a long-term schedule. Once DOE completes RI/FSs for the other canyons, a schedule can be negotiated.

[DOE] DOE will do an optimization study of U-Plant for two years and collect lessons learned that can be applied to other canyons.

Q: Are the walls of the canyons already grouted?

R: [DOE] Yes, but the buildings are not demolition-ready. The decision has been made to demolish the canyons inward and place a cap over the top of them but the completion milestones need to be determined.

[EPA] The RI/FS process for all non-tank farm operable units (OU) except for the canyons was supposed to be done by 2016. EPA decided not to renegotiate the date even though DOE will not make it because EPA was not ready to give up on the date yet. If they did, DOE could not go for funding. There are three Central Plateau Work Plans that will be completed and DOE will have to go for funding but DOE likely will not get it. If funding is not secured, EPA will need to renegotiate M-015-00. DOE is going to pull the work plans forward because it is better for the regulator to have DOE operating under a plan.

Q: The PUREX tunnels have high mortgage costs, including water, power and other surveillance, and maintenance costs. I would like to what these costs are and what risks are associated with each of the canyons.

R: [DOE] It would take approximately 20 minutes to provide this update.

Q: Will all of the changes discussed today be included in document subject to the 45-day comment period?

R: [EPA] Yes. The changes are fairly simple – the question is if the delays are acceptable. There is a finite amount of money and the agencies set schedules based on realistic funding.

[DOE] Packaging the changes is how DOE manages them and it avoids the “piecemeal” approach.

C: These changes seem to be budget-driven rather than risk-driven.

R: [DOE] That is not entirely true. ERDF has taken a lot of material and there is a lot of digging going on around the site. It is a massive effort to clean up such a large site and it is going to take time to get it done. DOE has a budget ceiling and work identified that needs to be done within a certain timeframe, and it is highly committed to following compliance.

[EPA] This is a public policy issue. At Hanford, there is a need for \$1.5 billion to complete all of the work and about \$6 billion to make real progress nationwide. In this economic condition the agencies are not going to get that level of funding, so schedules need to move. The quality of the cleanup is not changing, just the duration.

Q: What type of approval will the proposed changes require?

R: [EPA] Only one change will require regional-level approval. The others can be approved locally.

Q: Are there certain aspects of the proposed TPA Change Package the HAB should focus on?

R: [EPA] The agencies want to keep their priorities in line with the Board’s. EPA would like the Board to identify areas where they may be off track.

[DOE] DOE is still focused on the river and getting the K-Area sludge out by 2015 and taking care of 324 Building.

C: It is not possible for the Board to provide advice on this draft TPA Change Package, as we will not be able to review the document and develop advice in time for the November meeting (which would then be submitted during the public comment period). A Sounding Board at the November meeting might be the only way for the Board to provide feedback during the public comment period.

The committee decided it would review the draft TPA Change Package once it is available and conduct a Sounding Board at the November meeting. Since issues include budget and public involvement, the committee decided this should be a joint issue with PIC and the Budget and Contracts Committee (BCC).

Site-Wide Groundwater Treatment Infrastructure

Hanford Online Environmental Information Exchange (PHOENIX) demonstration

Briant Charboneau, DOE-RL, introduced Mark Triplett from Pacific Northwest National Laboratory (PNNL). Mark described a new tool called Hanford Online Environmental Information Exchange (PHOENIX) Geographic Information System (GIS) that is available online to the public. The program allows users to pull and analyze data from multiple agency databases. The software was created out of the desire to make the overwhelming amount of data about Hanford available to people who can analyze it. Mark provided an online demonstration of the program and its capabilities. Once the URL is finalized and made public, it will be distributed to the committee and Board.

Committee Questions and Response

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

Q: Is the system populated with data?

R: No, it is not populated. All information is pulled from pre-existing databases on the Hanford Environmental Information System (HEIS). As budgets shrink, there is only so much you can do to reduce sampling and analyzing costs. However, this program is a way to automate data gathering. Data reports are still being hand drawn. This software is a step in the right direction to spend less time and money on gathering data and more time analyzing it.

Q: Who designed the program?

R: Tim Seiple, Jackie Seiple, DJ Watson and others.

Q: Is the program available to the public?

R: It will be. [Hillary noted the URL will be distributed when it is available.]

Q: Does the data show depth of well samples so if there is a spike in one well it can be compared with another well at the same depth?

R: HEIS does record the depth of where the sample was taken. The program allows users to do detailed queries.

Q: Are the databases where the data resides available to the public?

R: Users do not have access to the actual databases, only the data itself.

Agency presentation

Briant Charboneau, DOE-RL, provided RAP with a broad update of the site-wide groundwater treatment infrastructure at Hanford (Attachment 8). There is a lot of groundwater treatment happening on site and Briant wanted to explain the impacts of turning all of these systems on and how changing groundwater levels affect these systems. Briant discussed the specifications for 200 West Groundwater Treatment Facility, K-West, KR-4, KX, DX and HX. He also described the Fiscal Year (FY) 2013 well drilling campaign and provided statistics on annual gallons of water treated and kilograms of hexavalent chromium removed for the River Corridor since 1997.

Briant noted that the 200 West Groundwater Treatment Facility recently won a Secretary of Energy's Achievement Award. The facility, which is a key component to restoring groundwater to drinking water standards at Hanford, was designed and constructed under budget and was awarded a LEED Gold standard.

Committee Questions and Response

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

Q: Are all contaminants being treated at the 200 West Facility? Is chromium treated?

R: All except tritium. Tritium is contained because it has a short half life. Chromium is treated. There is a lot of sludge coming out of the building each week, approximately five ERDF cans full.

Q: What is in the sludge?

R: Mostly biological material and dead biomass. There are contaminants, but in small amounts.

Q: Can pump capacity be increased?

R: By implementing new resins and increasing the size of the pumps and tanks, DOE can double the capacity of the treatment facilities. The biggest cost to improving the facilities is increasing the number of wells and piping. There are 92 wells online between the DX and HX facilities. DOE is trying to get RODS and align priorities to build these systems but money is tight and

DOE-RL is taking a significant decrease in funding. DOE is hoping they are built before money runs out. One billion gallons of contaminated water were treated this year. After the expansion three billion gallons will be treated annually.

Q: What is the electrical loading of the 200 West Facility?

R: Briant was not sure of the amount of electricity used but it is not significant. The cost to operate ETF is much higher than 200 West Pump and Treat. ETF is about 100 times more expensive per gallon than 200 West Pump and treat because it is designed to handle any kind of water.

Q: Is the cost higher because the water is harder to treat?

R: ETF is a robust facility designed to treat all types of waste and it is labor intensive to operate. 200 West is intended to run unstaffed on nights and weekends. The system calls people when there is a problem with the facility.

Q: Is there potential for ETF to be shut down?

R: No, it is under permit so it has to remain viable. The streams that have to go there, such as uranium-contaminated perched water, are about 3 million gallons per year whereas DOE treats 100 million gallons per month throughout the site. The operating costs are substantially different for ETF.

Q: Has the efficiency of strontium sequestration improved? Is there a program to monitor sequestration?

R: Early wells are monitored and sequestration is effective. DOE has seen reduction in levels in the drinking water before it reaches the Columbia River where it is diluted further. This is the method DOE has decided to go with; sequestration will continue to be monitored for several years.

C: The cleanup level of carbon tetrachloride is currently at 3.4 µg/L down from 2,000 µg/L.

R: The concentration of groundwater contamination was at 5,000 µg/L and the interim action goal was to reduce it 2,000 µg/L. The goal was to reduce risk. DOE achieved this goal, but there were problems with wells that were in a shallow part of the aquifer. The aquifer is approximately 500 feet and extensive monitoring and treatment was being done only in the top 25 feet. DOE pushed hard to do characterization and wells with the highest concentration of contaminants have been targeted. The 200 West Facility is designed to treat all water in the aquifer.

Q: How sustainable is this system in terms of budget?

R: The Site-wide program monitors 800 wells and hundreds of aquifer tubes, which are less expensive to monitor than wells. Per year, it costs approximately \$10 million to do sampling and analysis, \$10 million to operate the 200 West Pump and Treat Facility and \$10 million for the

pump and treats along the river. Including training and field support, it costs approximately \$40 million overall. The wells along the River Corridor require a lot of adjustments because contamination along the river is narrow and once the plume is clean the wells are moved. Sucking contamination from the middle wells takes longer and costs less.

Q: Are new wells planned for 2013 included in the \$40 million?

R: No. RODs are coming up for new wells and retrofitting or expanding existing facilities. Construction cost is another \$150 million and operating costs would go up about 50-60 percent. Labor force is expensive but DOE works hard to give them meaningful tasks to do and only have them on-site when they need to be. Staffing will not need to increase much when expanding the plants.

Q: How is well decommissioning going?

R: Good progress has been made over the last few years and approximately 350 wells have been decommissioned. DOE has a significant amount of database cleanup to do regarding already decommissioned wells. There are only about 300 low risk well lefts. To ensure new wells are tight DOE is using a material that expands when mixed with liquid and seals around the pipe.

Q: When will a B5 pump and treat concept be developed?

R: This is not funded but it is in the works. It is a high priority, but not a funded priority.

Q: Are the regulatory agencies amendable to 200 West Pump and Treat expansion?

R: Yes.

Q: How many workers have recently been removed from the 200 West Facility?

R: The 200 West Pump and Treat Facility was overstaffed thus summer. Four operators have been removed. However, the work force is now relatively stable.

Issue Managers will continue to track this topic.

Committee Business (Part Two)*

November meeting topics and 3-month work plan review

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

RAP discussed potential topics to discuss in October, November, December and January (Attachments 1 and 9). In November, the committee agreed that they would like updates on the Plutonium Finishing Plant (PFP) and the F Reactor OU to prepare for the draft Proposed Plan. RAP also agreed to discuss the draft TPA Change Package pending its release in mid-October, and confirmed it would like to have a Sounding Board at the November HAB meeting so Board members can provide their feedback on the draft Change Package, to be submitted according to Board process during the public comment period, and to determine any potential needed follow-up.

RAP decided to have a committee call in December to prepare for January. RAP will not have an October committee call.

Tiffany Nguyen, DOE-RL, suggested discussing the Integrated Priority List (IPL) building blocks in January or February, joint with BCC, since the agencies will have had time to finish TPA negotiations and have them signed.

The committee raised concerns with the modeling used in the Tank Closure and Waste Management (TC&WM) Environmental Impact Statement (EIS); especially if the same modeling approach is applied to future projects. Sharon Braswell, MSA, said DOE-ORP is working to frame the issues and bring them to the right people. Potential advice will likely focus on two topics – modeling used both in the TC&WM EIS and in general, and other risk management. This is a joint topic with RAP and TWC.

RAP also expressed interest in better understanding what drives Hanford's relationship with the U.S. Nuclear Regulatory Commission.

Update Issues Manager Table

The committee tabled review the Issue Manager Table until the next meeting.

Attachments

Attachment 1: Transcribed Flip Chart Notes

Attachment 2: 300 Area Watermain photo/map

Attachment 3: Hanford Natural Resource Trustee Council (HNRTC) Injury Assessment Plan (IAP) Presentation

Attachment 4: Hanford Natural Resource Trustee Council (HNRTC) Guiding Principles for Protection of Natural Resources

Attachment 5: Hanford Advisory Board Value White Paper

Attachment 6: Groundwater Vadose Zone Executive Council Presentation

Attachment 7: Proposed Changes to Tri-Party Agreement Presentation

Attachment 8: Site-Wide Groundwater Treatment Infrastructure Presentation

Attendees

Board Members and Alternates

Richard Bloom	Steve Hudson	Dave Rowland
Shelley Cimon	Pam Larsen	Dick Smith
Dale Engstrom	Liz Mattson	John Stanfill
Barbara Harper (phone)	Emmet Moore (phone)	Bob Suyama
John Howieson	Vince Panesko	

Others

Kim Ballinger, DOE-RL (phone)	Dieter Bohrmann, Ecology	David Dooley, CHPRC
Briant Charboneau, DOE-RL	Kim Welsch, Ecology	Alex Norgard, CTUIR
Michael Cline, DOE-RL	Zelma Jackson, Ecology	Chelsey Funis, EnviroIssues
JD Dowell, DOE-RL	Brenda Jentzen, Ecology	Susan Hayman, EnviroIssues
Mark French, DOE-RL	John Price, Ecology	Hillary Johnson, EnviroIssues
Karen Lutz, DOE-RL		Sharon Braswell, MSA (phone)
John Morse, DOE-RL	Dave Einan, EPA	Cole Lindsey, MSA
Tiffany Nguyen, DOE-RL	Dennis Faulk, EPA	Barb Wise, MSA
Tom Post, DOE-RL	Larry Gadbois, EPA	Reed Kaldor, MSA
	Chris Guzetti, EPA	Mark Triplett, PNNL
Alex Teimouri, DOE-EM	Emy Laija, EPA (phone)	Peter Bengtsen, WCH
		Don McBride, WCH
		Steve Wisness, YAHSGS