Pam Larsen, River and Plateau Committee (RAP) chair, welcomed the committee and introductions were made. Committee members adopted the April 2015 RAP meeting summary.

**242-Z (McCluskey Room) Update**

*Agency Presentation*

John Silko, U.S. Department of Energy—Richland Operations Office (DOE-RL), provided the committee with an update on deconstruction, demolition, and waste disposition activities at the Plutonium Finishing Plant’s (PFP) Americium Recovery Facility (also known as 242-Z or the “McCluskey Room”). John presented committee members with images of the ongoing work, and key points from his presentation included:

**Attachment 1**: Americium Recovery Facility (The “McCluskey Room”) (DOE-RL Presentation)
• The Americium Recovery Facility is best known as the location of the 1976 incident involving Harold McCluskey. McCluskey was working within the WT-2 glovebox at 242-Z when an ion-exchange column erupted, destroying the glovebox and ejecting resin beads, glass, and other radioactive debris into the facility and adjoining gloveboxes.

• The Americium Recovery Facility itself has one of the smallest footprints of any Hanford accessory facility; however, the nature of the work conducted in 242-Z, as well as the facility’s history, present many demolition challenges.

• Since September 8, 2014, workers have been using new suits developed by Rich Industries to conduct work inside of the 242-Z facility. The suits have a cooled and pressurized interior environment, and they allow workers approximately 320° of mobility. The extra mobility and the added protection that the suits provide allow work within the confined spaces of the 242-Z facility to be completed more effectively and more safely.

• The roof of 242-Z is not waterproof and precipitation has leaked into the interior over the years. This moisture has combined with the butylated varnish fixative and nitric acid to form a gooey resin on the facility’s floors. Rich Industry suiting incorporates foot padding that is resistant to softening following exposure to this resin.

• DOE-RL and the contractor are very cognizant of the materials used to facilitate deconstruction and demolition. Ongoing efforts strive to limit the introduction of new materials to the waste stream as much as possible.

• Ongoing work being conducted in May 2015 includes:
  o Completely removing the WT-1 Glovebox, including associated piping and equipment, as well as the exterior shell and legs
  o Draining and removing all of the process and delivery piping in the Tank Room pipe gallery
  o Removing and disposing of select, non-radiological hazardous waste items from the 242-Z Control Room and Mezzanine Deck
  o Preparing tanks with fixative for removal during demolition
  o Verifying 242-Z’s demolition readiness (involves extensive characterization)

Regulator Perspective

Ron Skinnerland, Washington Department of Ecology (Ecology), noted Ecology’s satisfaction with the ongoing progress at the PFP complex, 242-Z included, and he recognized that work at the facility has been very technical and challenging. Ron thanked DOE-RL, the contractor, and the workers for their dedication to the cleanup effort. Ron expressed hope that the Tri-Party Agreement (TPA) milestone for the conversion of the PFP complex to “slab-on-grade” (meaning all structures above grade are removed with only a concrete slab foundation remaining) could be completed on-schedule.
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. Is there any liquid that is left inside of the piping at 242-Z?

   R. [DOE-RL] There is likely some residual liquid left within the piping—but not much. The roof of 242-Z is lower than the line-feed to the PFP, so there is a slight amount of liquid in the piping. However, workers have not yet discovered any large volume of liquid in within 242-Z piping.

Q. Where does the waste coming out of 242-Z get disposed?

   R. Low-level waste is sent to the Environmental Restoration and Disposal Facility (ERDF). Any transuranic waste (TRU) that is discovered goes into an approved container and is sent to the Central Waste Complex. Containers are not filled to more than 50-60 percent of their radiological capacity to ensure that they are not over-packed. The contractor also works to ensure that contaminated materials are not concentrated in any specific location within the package.

Q. What is the planned end-state of the Americium Recovery Facility?

   R. [DOE-RL] 242-Z, along with the rest of the PFP, will be converted to slab-on-grade under Project Baseline Summary (PBS) RL-0011, PFP Closure Project. Following conversion to slab-on-grade, the facility will transition to PBS RL-0040, Surveillance and Maintenance for Surplus Facilities and Waste Sites.

Q. Is TRU waste packed into containers on-site and packaged according to Waste Isolation Pilot Plant (WIPP) acceptance criteria?

   R. [DOE-RL] Yes. Representatives from WIPP are on-site, and they observe the packing process.

Q. Are there any limits to the amount of time that TRU waste intended for shipment to WIPP can be kept on a pad at the Hanford Site?

   R. [DOE-RL] There is no time limit for getting the waste off-site so long as the package is certifiable and abiding by the permit.

Q. Is there any pyrophoric material present within the facility?

   R. [DOE-RL] There are no pyrophoric materials present within the 242-Z Facility.

C. The photos included within the presentation speak to the high-level of difficulty that is associated with work at the 242-Z facility. The HAB should recognize the tremendous accomplishments of workers. This presentation may also be appropriate for the Board.

Attachment 2: Transcribed flipchart notes
R. [DOE-RL] DOE-RL could provide an additional update to the Board in late-fall 2015 once the facility is in a demolition-ready state.

Q. Demolition to slab-on-grade, as stipulated by the TPA milestone, represents incredible progress at the PFP Complex; however, there is some concern from the Board that contamination from PFP operations exists beneath these facilities. DOE-RL needs to be vigilant as work progresses to ensure that any contamination beneath the slab is characterized and appropriately addressed.

R. [DOE-RL] There is PFP complex work under PBS RL-0040 that will follow the completion of PBS RL-0011. Once the PFP complex is reduced to slab on grade, PBS RL-0040 will aim to address any remaining sources of contamination at the site. DOE-RL understands the Board’s concern and the agency will continue to track the potential for contamination that may be present beneath the PFP slab.

R. The current demolition efforts are being conducted as a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) removal action. The PFP complex will then be included in a future operable unit which will address any needed remedial actions. A remedial investigation will be conducted on the area to determine what, if any, remediation actions would be necessary to address contamination.

Q. Is there a milestone driver for characterizing and addressing potential contamination beneath the PFP slab?

R. [Ecology] There is a milestone driver for operable units within 200 Area; the U.S. Environmental Protection Agency (EPA) is the lead. EPA has been working with DOE-RL on the work plan for meeting this TPA milestones, and that conversation between agencies is ongoing.

The committee thanked John for his presentation, and RAP members expressed interest in continuing to discuss ongoing work at the PFP and characterizing potential contamination beneath the complex at the November 2015 Board meeting. The committee agreed that a letter of commendation directed to the cleanup workforce was appropriate.

200 Area Groundwater and 100 N Apatite Barrier

Agency Presentation

Jon Peschong, DOE-RL, provided the RAP committee with an update on the state of groundwater contamination and treatment at the Hanford Site. Key points from Jon’s presentation include:

- Approximately 400 billion gallons of contaminated groundwater were released into Hanford soils throughout the operation life of the Hanford Site. These releases raised the Hanford Site water table by as much as 12 feet.

Attachment 3: Groundwater Update, May 2015 (DOE-RL Presentation)
• Remediation efforts across the Hanford Site are currently treating approximately two billion gallons of groundwater each year. A total of 179 tons of contaminants have been removed groundwater.

• DOE-RL will continue to develop the 200 West Groundwater Pump and Treat Facility. DOE-RL will need to continue to drill new wells as groundwater plumes migrate.

• The 2014 Annual Groundwater Report notes the following progress:
  o Approximately 62 tons of contaminants were removed from groundwater in fiscal year (FY) 2014, and 1.95 billion gallons of groundwater were extracted and treated.
  o DOE-RL initiated construction of the uranium treatment system and well network at the 200 West Groundwater Pump and Treat Facility, as required by the 200-UP-1 Record of Decision (ROD).
  o The 100-HR-3 operable unit has seen hexavalent chromium reduced by a factor of ten, and maximum concentrations of hexavalent chromium detected in wells at the end of 2014 were less than 500 µg/L.
  o The 100-ZP-1 operable unit has seen a considerable reduction in the area of its carbon tetrachloride plume.

• In FY 2015, DOE-RL will continue to develop pump and treat operations. Examples of ongoing work include:
  o Incorporating additional biomembrane reactors at the 200 West Groundwater Pump and Treat Facility to resolve the current pinch-point in operations. Additional membranes will allow a higher volume of water to be treated by the facility. Following implementation, the next pinch-point will be identified and enhanced to accommodate additional treatment capacity if it is economically feasible to do so.
  o Continued installation of the uranium treatment system at the 200 West Groundwater Pump and Treat Facility. The system is scheduled to be fully installed by the end of calendar year 2015 and then pressure-tested in the following months. The uranium removal system is composed of three ion-exchange columns, and the columns can hold approximately 40-50 kilograms of uranium. The uranium capture resin is elutable; however, DOE-RL will not elute the uranium out. Instead, the entire ion exchange columns will be macroencapulated and sent to ERDF for disposal. Technetium will also be captured by pump and treat activities through a separate process.
  o Continued remedial investigation for the orchard lands in the River Corridor.

• Groundwater remediation in FY 2016 (based on the President’s budget appropriation of $914 million) will tentatively include continued:
Integration of site-wide vadose zone and groundwater cleanup activities

Operation of the Groundwater Pump and Treat Facilities (incorporating uranium removal)

Operations to support drilling commitments noted under TPA milestone M-024

Progress on completing the groundwater characterization and decision documents needed to obtain RODs for operable units in both the River Corridor and the Central Plateau

In 2017, many groundwater remediation activities are ongoing through FY 2017. DOE-RL goals for removing hexavalent chromium contamination diminish as more of the contaminant is captured and concentrations fall.

Jon’s presentation contained two charts detailing CERCLA decision document pathways for Operable Units in the 100, 200, and 300 Areas, as well as notes and next steps for the operable units. Jon encouraged committee members to submit any questions on upcoming activities to Kris Skopeck, DOE-RL Community Involvement/Public Affairs Specialist.

Regulator Perspectives

Dib Goswami, Ecology, provided the committee with a supplemental presentation from a regulatory perspective that highlighted the state of groundwater and vadose zone contamination throughout the Hanford Site. Dib’s presentation noted the following information:

- There are an anticipated 550,000 curies of radioactivity and 150 million kilograms of metals and hazardous chemicals present in Hanford Site soils and groundwater, according to the inventory. A significant amount of the contamination is still located above the groundwater, within the vadose zone.

- At 200 West, groundwater remediation technology is in place and able to address all “existing past practice” groundwater contamination under CERCLA and the Resource Recovery and Conservation Act (RCRA). Groundwater contamination regulated by RCRA relates specifically to tank farm operations. Most deep vadose zone contamination still needs to be addressed.

- At 200 East, no groundwater remediation is yet in place, and deep vadose zone contamination still needs to be addressed. The U.S. Department of Energy (DOE) conducted a treatability test to remediate technetium-99, and separate treatability tests for uranium and nitrate are planned.

- An extraction and treatability test was conducted on perched water in the BC Crib within the 200 East Area. The test demonstrated that perched water extraction is one of the most cost-effective mass removal activities at the Hanford Site. To date, 0.0241 curies of technetium, 42 kilograms of uranium, and 405.6 kilograms of nitrate have been removed from approximately 200,000 gallons of groundwater. The treatability test demonstrated that the 200 West Groundwater Pump and...
Treat Facility should be taken advantage of to treat perched water and groundwater existing within the boundaries of the Central Plateau for the extent of its design life.

- There are approximately 45 anticipated areas of perched water in the 200 West and the 200 East Areas, not all of which have been characterized. Characterization and well-excavation are two challenges facing perched water remediation.

- At the 100 N Area, TPA milestone M-016-111-T03 stipulates that strontium should be stopped from entering the Columbia River by 2016. Currently, the strontium plume is expected to contaminate the Columbia River for the next 150 years if additional remediation actions are not implemented.

  - The 100 N Area strontium plume moves very slowly. A majority of the plume exists within the vadose zone at a depth of approximately 15 feet. Monitored natural attenuation of strontium-90 takes approximately 250 years. Parts of the strontium plume will decay away before they hit the river; a barrier of apatite is partially in place along the most critical areas of the plume.

  - The apatite solution is composed of calcium phosphate. As strontium comes in contact with the apatite, it replaces calcium and becomes folded into the crystal lattice as strontium phosphate. Strontium phosphate is a very stable compound, and, once incorporated, the strontium is not released back into the environment.

  - The apatite barrier is a beneficial strategy for managing the strontium plume, as it has a very low cost of operation. A majority of the cost associated with the apatite barrier is monitoring.

- The drinking water standard for strontium-90 contamination is eight picocuries per liter. Therefore, even if 90% of the strontium plume at the 100 N Area is remediated before it reaches the river, the residual still represents a level of contamination that is 3,000 times the drinking water standard. To mitigate this, Ecology has formally proposed a pilot study incorporating phytoremediation. This accessory remediation strategy could potentially reduce the remediation timeline for the strontium plume to 30-50 years (as opposed to 100-150 years). Currently there is no funding available for DOE to conduct a pilot-level phytoremediation treatability test.

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. It appears as though DOE-RL is already writing the CERCLA decision documents for many sites within the Central Plateau Inner Area. What is the status of the cleanup guidelines? Will DOE-RL incorporate Board feedback on the guidelines before publishing decision documents? The Board’s

Attachment 2: Transcribed flipchart notes
understanding is that the agencies have not yet adopted these guidelines, therefore it seems like DOE-RL should wait to develop work plans for the Central Plateau area.

R. [DOE-RL] The guidelines exist to inform agencies on the overall approach to Central Plateau remediation work. DOE-RL’s position is that the cleanup guidelines are nothing more than what is required from a regulatory standpoint. DOE-RL will apply the guidelines as work progresses.

C. Will the agencies move forward with the Central Plateau Inner Area cleanup guidelines without considering HAB Advice #283? The Advice represents a robust collaborative effort on behalf of a diverse group of Hanford Site stakeholders.

R. [DOE-RL] DOE-RL would like agreement on the guidelines before incorporating them into Central Plateau remediation strategies. This agreement has not yet been reached; therefore the conversation is ongoing. DOE-RL and the regulatory agencies are currently collaborating on a response to HAB Advice #283.

Q. Does DOE-RL have funding to commence a test of the 300 Area uranium sequestration?

R. [DOE-RL] Yes, DOE-RL has enough funding for a small test of the sequestration technology. EPA has suggested a larger test; however, that funding is not available at this time.

Q. Are any of the CERCLA work plans in jeopardy of not being completed on schedule due to a lack of funding?

R. [DOE-RL] Potentially; however, work plan creation is something that can be ramped up relatively quickly as funding becomes available.

Q. Looking at recently presented budget documents, FY 2017 calls for a relatively large decrease in groundwater funding. What will DOE-RL cut to accommodate this funding decrease?

R. [DOE-RL] Currently, DOE-RL is spending approximately $20 million to install the uranium treatment capacity and the associated pipelines at the 200 West Groundwater Pump and Treat Facility. Once this system is installed, that funding will no longer be required. The pump and treat operation costs will increase to approximately $20-22 million to account for the purchase of ion-exchange resin and increased labor costs.

Q. Is there enough funding in the budget in FY 2016 to continue all pump and treat activities at the Hanford Site?

R. [DOE-RL] Yes.

Q. Does the groundwater uranium removal system at the 200 West Groundwater Pump and Treat interact with the technetium removal system?

R. [DOE-RL] There are interactions between the systems; however, DOE-RL anticipated these interactions and the facility design has taken them into account.
Q. Will the groundwater pump and treat infrastructure within the 200 Area be able to handle any contamination that may be discovered underneath the PFP complex?

R. [DOE-RL] Converting the PFP complex to slab-on-grade will remove the largest facility hazard currently present at the Hanford Site. DOE-RL would like to ensure that the technical expertise of the workers is maintained for future cleanup efforts.

Q. Could DOE-RL and Ecology expand upon the characteristics of the identified perched water sites?

R. [Ecology] The 45 perched water sites were identified in 1998 as areas that may have contaminated groundwater because of the historic disposal of wastewater. Ecology and DOE do not anticipate that all of these sites will display the same level of deep vadose zone contamination that the pilot site (BC Crib in the 200 East Area) displayed.

R. [DOE-RL] Additional work in the deep vadose zone is important. The treatability test conducted on perched water in the 200 East Area demonstrated compelling information; however, it is important to note that the other 45 perched water sites may not demonstrate the same degree of difficulty.

Q. It is important for DOE-RL to begin looking into and acting on contamination present within the deep vadose zone. However, even if the 45 sites of deep vadose zone contamination are remediated, will there not still be huge amounts of long-lived radionuclides moving into the groundwater?

R. [Ecology] The deep vadose zone is a very complicated problem, and, in many cases, treatment technology is not available. Some of the technology that is being explored includes strategies for solidification (grouting) that will stop the migration of contaminants such as technetium-99. It is unlikely that remediation efforts will be able to remove all of the 550,000 curies present within Hanford Site soils. If even half of that contamination remains in the vadose zone following remediation, it will still present a significant problem.

Q. Some of the contamination is already present in groundwater. For iodine-129 contamination, for example, there is no known treatment.

R. [Ecology] For contamination that moves along with groundwater (e.g. tritium, nitrate, iodine-129) there is no available treatment. It takes approximately 60 years for groundwater to move from the 200 West Area to the Columbia River. From 200 East Area, the length of time that it takes groundwater to migrate to the Columbia varies from between 15-30 years. It historically took less time for groundwater to migrate due to the gradient that was created when 200 East Area was actively expelling large amounts of water. Some contaminants, like plutonium and technetium, are less mobile.

Q. What are the changes to the Proposed Plan for 100-N indicated by the CERCLA decision document chart?

R. [DOE-RL] DOE-RL will look into this and provide the Board with an answer.
Q. Is there an agreement in place to get the remaining work completed on the remaining 300 feet of the 100-N Area apatite barrier?

   R. [DOE-RL] The cultural review is still not finalized, and work on the remaining 300 feet is not able to commence.

   C. The Yakama Nation is waiting for DOE-RL to discuss a memorandum of agreement for the duration of the 300 year injury that the barrier will present.

Q. What would the estimated cost be for DOE-RL to conduct a treatability test for phytoremediation within the 100 N Area?

   R. [Ecology] Ecology estimates that the total cost of the pilot study would be $500,000-$700,000. Phytoremediation only needs to occur in a select area of the strontium plume, and the pilot study could likely be scaled back to approximately $300,000, if needed.

   C. The Board should recommend that this treatability test be conducted through upcoming budget advice.

Q. What type of plants would be used in 100 N Area phytoremediation? What is the status of the ecological review for the potential effort?

   R. [Ecology] The proposed plant is Salix exigua (narrowleaf willow). As the willow uptakes strontium, it is distributed throughout the plant. Phytoremediation strategies generally recommend removal of the above-ground portion of the plant each year.

   R. It is important to do robust ecological review on the phytoremediation strategy. A collection of willows along the Columbia River would present an attractive, shaded habitat. It needs to be confirmed that the strontium concentrated in the willow would not cause any ecological harm.


The committee thanked Jon and Dib for the information. Dib identified that DOE and Ecology are in the process of finalizing remedial investigation/feasibility study documents for N Area. He noted that additional information may be available in September 2015, and he encouraged the Board to inquire about the timeliness of an additional update in late-summer 2015. Committee members noted that, in the meantime, HAB 2015 budget advice should take into account groundwater remediation strategies.
Committee Budget Input

Introduction 5, 6, 7

Ed Revell, Budgets and Contracts Committee (BCC) vice chair, provided RAP members with a his perceptions of DOE’s FY 2017 Hanford Budget Priorities Briefing, noting that presented information was very high-level and focused primarily on agency priorities. Ed recognized that DOE-RL and U.S. Department of Energy—Office of River Protection (DOE-ORP) budget presentations did not identify the proposed FY 2017 budget as being TPA-compliant. He also noted that presented information did not discuss potential budget-concerns resulting from delays in shipping waste to New Mexico’s Waste Isolation Pilot Plant or relating to retrieving waste from leaking tanks.

Ed was hopeful that the RAP committee could review the HAB Advice #277 (2015 Presidential Budget and 2016 Budget Request) and discuss potential updates that would adapt the advice to the proposed DOE-RL FY 2017 budget request. Ed requested that the committee identify a list of substantive points for inclusion in BCC’s draft 2016 Presidential Budget and 2017 Budget Request advice (tentatively scheduled for discussion and adoption at the HAB’s June Board meeting).

Committee Questions and Responses 2

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

C. The Board always advises DOE-RL and DOE-ORP to request fully-compliant budgets. The Board should restate this in upcoming advice, as well. The TPA directs DOE offices to submit a budget that is compliant to all work that is required to meet milestones; however, DOE offices currently craft budget requests that are compliant with DOE headquarters.

C. The budget requests that DOE-RL and DOE-ORP presented not following the costs identified in the Lifecycle Scope, Schedule, and Cost Report. Another continued concern of the Board is that the Lifecycle Scope, Schedule, and Cost Report is not current; each year, as budget shortfalls accumulate, the Report becomes further out of sync with reality. At this point, it would not be advantageous for the Board to request that the budgets be compliant with the Lifecycle Scope, Schedule, and Cost Report. Advice would be more impactful if it encouraged DOE-RL and DOE-ORP to be request adequate funding to comply with TPA milestones.

C. It is important for the Board to provide budget advice as a record noting that ongoing funding shortfalls are detrimental to both short- and long-term remediation work. The congressional delegation works very hard to bring adequate funding to the site, and Board advice provides them with important documentation of stakeholder input.

Attachment 5: HAB Advice #277: 2015 Presidential Budget and Request
Attachment 6: Handouts from the 2015 Hanford Budget Priorities Briefing
Attachment 7: Observations and proposed guidance from the 2015 Hanford Budget Priorities Briefing (Ed Revell)
Attachment 2: Transcribed flipchart notes
C. DOE-RL is looking to cut HAB funding in FY 2017 by a further 20%. Public involvement, despite amounting to a very small amount of the overall Hanford budget, is often the first item to be trimmed. It is important that we once again encourage DOE-RL to increase support for the HAB and overall public outreach and involvement, as robust public involvement can make a very tangible difference in public support and remediation success. The budget for Board, regulatory, and public involvement support should be increased by $7 million more than the DOE-RL FY 2017 budget request.

C. It appears that the initial step of investigating removal of cesium and strontium from the Waste Encapsulation and Storage Facility (WESF) may be one of the first efforts to be dropped from the integrated priority list if DOE-RL receives less funding than requested. However, DOE headquarters has been assured that the cesium and strontium capsules will be removed by 2016. DOE-RL needs to prioritize this effort.

C. The Board has given advice on K-Basin sludge removal, packaging for TRU waste, deteriorating waste containers at the Central Waste Complex, groundwater decision documents and remedies, and 618-11. The Board is still concerned about all of these ongoing efforts, but each may fall off the table according to the FY 2017 DOE-RL budget request. The Board should reiterate support for all of these remediation efforts.

C. The Board has been very mindful to never prioritize certain cleanup activities over others. One of the largest dangers associated with prioritizing cleanup is that lower priority items may never be completed. DOE is responsible for cleaning up all contamination at the Hanford Site

C. DOE-RL appears to be favoring funding for 618-10 vertical pipe units over remediating soils under the 324 Building, likely because work at 618-10 could be completed within a year. The 324 Building, on the other hand, presents a high degree of uncertainty. The strategy that DOE-RL may be using to prioritize 618-10 fails to recognize the high level of risk presented by contamination beneath the 324 Building.

C. Concerning the apatite barrier in the 100 N Area, the Board should encourage DOE-RL to engage in further conversation with the Yakama Nation. The additional apatite solution should be added to the remaining 300 feet of barrier as soon as possible.

Ed thanked committee members for the input and perspectives, and he noted that a draft of the FY 2017 budget request advice will likely move forward at the June 2015 Board meeting. Members of the Board would have the opportunity to comment on the draft advice during the first day of the Board meeting, and issue managers would incorporate noted changes into the advice for Board review and confirmation.
Committee Business

RAP 3-Month Work Plan

The RAP committee will not plan to hold a meeting in June 2015. The committee will plan to hold calls in both June 2015 and July 2015 in preparation for a committee meeting in August 2015 that will tentatively include the following topics:

- Discuss remedial investigation/feasibility studies for SW-1, WA-1, and DV-1
- Receive an update on cesium and strontium storage at WESF.
- Receive an update on the design for remediating contamination below the 324 Building.
- Receive an update from EPA on macroencapsulation efforts at ERDF.

In September 2015, RAP tentatively plans to meet and follow up on 200 Area Groundwater remediation and receive an update on the status of the 100 N Area apatite barrier.

Attachment 8: RAP 3-Month Work Plan
Attachments

Attachment 1: Americium Recovery Facility (The “McCluskey Room”) (DOE-RL Presentation)
Attachment 2: Transcribed flipcharts
Attachment 3: Groundwater Update, May 2015 (DOE-RL Presentation)
Attachment 4: Groundwater Update, May 12, 2014 (Ecology Presentation)
Attachment 5: HAB Advice #277: 2015 Presidential Budget and Request
Attachment 6: Handouts from the 2015 Hanford Budget Priorities Briefing
Attachment 7: Observations and proposed guidance from the 2015 Hanford Budget Priorities Briefing (Ed Revell)
Attachment 8: RAP 3-Month Work Plan
### Attendees

Board members and alternates:

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<td>Dale McKenney, CHPRC</td>
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<td>Jim Payne, DOE-RL</td>
<td>Dibakar Goswami, Ecology</td>
<td>Karen Wiemelt, CHPRC</td>
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<td>John Silko, DOE-RL</td>
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<td>Brett Watson, EnviroIssues</td>
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<td>Jen Copeland, MSA</td>
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