

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
RIVER AND PLATEAU COMMITTEE MEETING
*June 16, 2010
Richland, WA***

Topics in this Meeting Summary

Welcome and introductions 1
Comprehensive Land Use Plan (CULP) 1
100-N Remedial Investigation/Feasibility Study (RI/FS) Work Plan Advice..... 5
Action Items / Commitments 10
Handouts 11
Attendees..... 11

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.

Welcome and introductions

Dale Engstrom, welcomed everyone and spoke about the purpose of the topics to be discussed. He said the River and Plateau (RAP) committee would appreciate input from the agencies on the Comprehensive Land Use Plan (CLUP). The RAP committee adopted the May meeting summary.

Comprehensive Land Use Plan (CULP)

Pam Larsen, RAP chair, passed out a map of the Hanford site that described the planned land use and a more detailed CLUP. She said there was a lot of discussion on the 300 Area and the reuse of buildings.

Rick Symon, City of Richland, presented a map illustrating the changes made to the land use plan. He said the Richland area is zoned for mixed use, allowing for commercial and residential use. He said there is a portion of the 300 Area that is within the Richland urban growth area, and there is still discussion as to where residential use can be located.

Pam read her notes from Boyd Hathaway’s, Department of Energy-Richland Operations Office (DOE-RL), presentation on the Hanford land use plan:

“Boyd Hathaway, the Hanford Site Realty Officer, provided an overview of the Hanford Land Use planning process to Administrative Board members. He noted that the federal government acquires land, uses it, disposes of it and, in some instances, needs to implement long term stewardship if the land use has resulted in any contamination. Boyd explained that the Department of Energy was required to develop future use plans for their environmental management sites by the Defense

Authorization Bill of 1997. DOE Order 430.1 b directs sites to develop comprehensive land use plans to support critical missions, stimulate the economy and protect the environment. When work originally began on the Hanford Comprehensive Land Use Plan it started out to be a remedial action environmental impact statement in mid 1990. In 1996 the focus changed to the Hanford Comprehensive Land Use Plan Environmental Impact Statement (HCP-EIS). The final draft of the HCP-EIS was issued in September 1999. A Record of Decision (ROD) adopting the CLUP, land-use policies, and implementing controls and procedures were issued November 12, 1999. In June 2008 DOE developed a Supplemental Analysis (SA) on the CLUP to identify changes in environmental conditions and information since the final HCP-EIS ROD was issued. Findings concluded that DOE had not identified significant changes in circumstances or substantial new information that have evolved since 1999 that would affect the basis of the DOE's decision as documented in the HCP-EIS ROD. In September 2008, DOE amended the HCP EIS ROD to clarify and document its SA review of the CLUP. The National Environmental Policy Act (NEPA) provides the opportunity for cooperating agencies to be involved in plan development. In the case of the CLUP this involved Benton County and tribal governments. Boyd explained that any land use actions of the Department of Energy or Pacific Northwest National Lab must be consistent with the land use plan. The Hanford CLUP contains four elements: a land use map; nine land use designations that define permissible uses; land use policies and implementing procedures that govern the review; and approval of future land use proposals. Boyd reviewed the plan map with Board members. He noted that there are eleven resource/area management plans identified although not all of them have been completed. However, there are currently ongoing discussions about developing a 200 East area development plan due to the fact the waste treatment plant is being built in that area and will continue to operate for many years. Boyd discussed the land use policies contained in the plan. This includes: overall policies; protection of environmental resources; protection of cultural resources; siting new developments; utility and transportation corridors; and economic development. He explained that it is the Department's goal to build new facilities in disturbed areas first using existing utility corridors. Boyd provided a flow chart showing the review process for a use request. Initially, any use request must be analyzed to determine if it is an allowable use, a special use or if a plan amendment would be required. He explained that a request for a special use would require review by the cooperating agencies. Boyd noted that the original plan called for formation of a site planning advisory board. This board was never formed since the need for the board has not been required. DOE has consistently managed DOE property within the framework of the CLUP's designated land use, land use policies and implementing procedures. Board members learned that DOE Richland Operations conducts periodic review of the Land Use Plan consistent with the Council on Environmental Quality Guidance on NEPA reviews. This is guided by 10 CFR 1021. The last supplemental analysis was published in June 2008. Findings concluded that DOE had not identified significant changes in circumstances or substantial new information that would have evolved since 1999. The Plan will be reviewed again around the June 2013 timeframe. Boyd reviewed the supplemental analysis steps identified in NEPA. Boyd provided a slide entitled "Energy Park" and noted that the environmental management

cleanup footprint reduction initiative provides the opportunity for reuse of land and infrastructure. The establishment of an Energy Park on the Hanford Site would be consistent with the CLUP. Large tracts of land on the Hanford Site, which may not be available in the community, might be made available for development of large scale energy-related projects. The goal is to partner with industry and regional stakeholders on such activities. He provide examples of relevant technologies: wind, solar, biomass, nuclear, liquid natural gas, hydrogen generation and central station coal with carbon sequestration.

DOE-RL has received a request for 300 acres of land to be leased to Energy Northwest for a solar farm. He noted that the Land Use Plan identifies 19 square miles for research and development and 50 square miles for industrial activities.

Actions that have been taken so far include:

- Active dialogue with Tribal and local community (ongoing)
- Document constraints (e.g., waste sites, public lands, existing development, infrastructure, access, and cultural/biological resources): (JULY 2010)
- Pursue activities to remove constraints (e.g., reduce footprint of Patrol Training academy firing range): (Ongoing)
- Review lease request with Energy Northwest (300-acre solar farm): (August 2010)
- Public meetings for Energy Park concept: (Fall 2010)
- Establish master plan for controlled development: (Fall 2010)

Boyd identified constraints for development of an energy park which include: withdrawn lands; availability of infrastructure and utilities; existing land use that constrains the availability of land such as the Patrol Firing Range, Energy Northwest and the Hanford Reach National Monument; and Hanford waste sites. He also noted that ecological, cultural and NEPA review and documentation would be required. At the end of his presentation Boyd informed the group that a DOE complex-wide policy committee has been developed to discuss energy parks and alternate use of government land.”

Agency Perspective

- Jim Hansen, DOE-RL, said DOE has interim action RODs for cleanup levels and DOE’s intent is to not back off on cleanup levels based on Model Toxics Control Act (MTCA) B. He said land use does not have an effect on ecological protection. DOE is doing ecological risk assessment and developing preliminary remedial goals and will present them this summer. He said ecological cleanup levels can be more stringent than some human restraints for metals, and DOE is trying to figure out how protective or conservative certain cleanup levels are. He said land use designation does not affect this. He said DOE is considering new MTCA standards and does not think it will be much of an effect on the decisions made in the ROD. He said the cleanup levels are based on MTCA B, which is for residential use.

Regulator Perspective

- Craig Cameron, Environmental Protection Agency (EPA), said people are interested in the exposure levels. Site wide there are many factors that go into what the land use will be. He said in Moses Lake there is a role for the local community members because they sued EPA and won . Therefore, the community now has more of a role in planning. He said land use is important, and there is always a concern that the land use designation will get abused, but EPA would not let this happen. He added that EPA tries not to rely on Institutional Controls (ICs)
- John Price, Washington State Department of Ecology (Ecology), said he has a small issue with calling the CLUP a NEPA ROD. If DOE did not undertake the NEPA process, people could stop the process. He said Ecology has interpreted the CLUP more narrowly. DOE has the authority, but at times the CLUP is represented as making permanent land use decisions. He said Ecology does have a role with the State Environmental Policy Act in permitting. He said Ecology may impose DOE to record contamination at the county and city levels with permitting for example. He said Ecology is not concerned with the CLUP as much as they are with cleanup.

Committee Discussion

- Maynard Plahuta asked how far the Richland urban growth area goes into the 300 Area. David said it incorporates most of the 300 Area.
- Shelley Cimon asked about the timeline for the risk assessment. Jim said the risk assessment should be out in the summer or early fall for public review.
- Pam said the Remedial Investigation and Feasibility Study (RI/FS) work and IC work is why the CLUP is interesting.
- Shelley said she has concerns regarding the CLUP. She also does not want to have to sue to participate in the plan. She asked how the Hanford Advisory Board (HAB or Board) can participate. Pam said the 300 Area is a little different than the situation in Moses Lake because it is inside the urban growth boundary of Richland.
- Jean Vanni said Ecology does not participate in land use planning unless it is in the form of a permit. She said she would think Ecology would be more interested in it if the land use was industrial or residential. John said Ecology would like to hear local community feedback on the CLUP to make the land use decision.
- Jean said the HAB would like the opportunity to provide input before the remedy is selected. Jim said the Hanford site cleanup framework came out last fall. Paula Call, DOE-RL, said it is still under review and in a month or so it will be final. Jim said this document shows the decision process and the remedy selection, where a remedy is selected based on land use.
- Susan Leckband asked if the Hanford site cleanup framework shows what remedies are identified. John said when the RI/FS is out the remedies will be identified and the proposed plan will be out shortly after. Craig said typically the

RI/FS is not commented on. Paula said HAB has advised the RI/FS process in the past.

- Jim said there are a few locations that are not at residential standards in the 300 Area, but DOE is still evaluating those sites. John said the waste sites in the 300 area that are not listed as residential use result from uranium concentrations. He said the cleanup levels were modified and now meet residential standards. He said DOE looked at the cost difference between residential and commercial standards, and the difference was negligible.
- Maynard said it should not make a difference if the city and DOE have different land use plans; it is the remedy selection that makes a difference.
- Craig said the Tri-Party Agreement (TPA) says that a draft with a range of alternatives is made public, and there is time to look at the options in the feasibility study.
- Liz Mattson wanted clarification on if land use is important for cleanup levels. Jim said residential land use does require more stringent cleanup levels, and DOE is being overly protective to make sure the public is protected. John said land use is a key consideration in selecting cleanup levels.
- Shelly asked if Ecology's authority for land use has changed. John said no, DOE has the authority for land use.
- Liz said if land use dictates cleanup levels, can it make them less stringent. Jim said DOE will not move backwards on cleanup.
- Susan said the CLUP does not have to be the HAB road map, but it is a place to start the discussion on land use.
- Maynard asked if the Tribes and Oregon are involved in these discussions, and if the City and County are consulted for advance draft studies. Craig said these are good considerations and this information could go through the HAB. Paula said if there was a request from the local government it should not be a problem.
- Maynard reiterated that the CLUP is just a base document, and the remedy selection is the main thing to focus on.
- Pam asked if there will be a remedy selection in the next few months. John said there will not be anything in the next few months. Paula said the HAB is in the loop on the 100 N Area early in the process. Susan said DOE will let the HAB know when things are happening.
- Shelley said a timeline for decisions would be good. Paula said DOE has a timeline for some areas and a site wide chart is being developed. Dick said often the HAB sees things late. Paula said she will get the chart of schedules to the HAB.

100-N Remedial Investigation/Feasibility Study (RI/FS) Work Plan Advice

Pam introduced the 100-N RI/FS work plan advice topic and said that RAP committee would like to identify the specific differences between draft A and B. She said the HAB was notified that draft B was produced with the HAB advice addressed.

Dale said there have been several meetings regarding the 100-N work plan advice. He said there was an integration process with comments from the entire committee, and he compiled them into one document. The advice was discussed in committee, sent out by email and reviewed. It was at this point that there was a request from DOE to discuss the advice because of the confusion between the drafts of the work plan. Mike Thompson wanted to provide explanation before advice is created.

Mike Thompson, DOE-RL, handed out a packet with the list of changes that have been made to the 100-N RI/FS work plan. He said the first draft was insufficient and was sent back to the contactor, then draft A was produced and stakeholders were able to illuminate the weak points of the document. He said one of the main issues is how a decision can be made after only drilling four new wells. The work plan relies on activities under the interim action work plan, and most of the waste sites are covered under the interim ROD to support the uses defined in the 1999 ROD. He said the waste sites will be remediated, and 100-N is a little behind other areas. He said the waste sites contributing to the Strontium (Sr-90) plume have been remediated. He said the 100-N Area is highly studied, and data on the contaminants identified along with other information has been better incorporated into the work plan.

Mike presented the Hanford past practice strategy from the 1990s. He said the Hanford past practice strategy incorporates the activities that have been done so far, and DOE feels there will be enough information with past actions and the four new wells to complete the work plan. He said the main difference between draft A and B of the work plan is it is better defined and communicates information better.

Mike provided a map of 100-N with the well locations. He said graphical information was updated based on what was learned with the Operable Unit (OU) work and the drilling. He said there is a lot of information available on the 100-N Area, and DOE has a good idea of the contaminants present. He said the major risk in the 100-N Area is Sr-90 since most of the contaminants that bind with soils have been excavated and taken away. He said chromium was only used in the first few years of operation, and there are only trace amounts left. He said since Draft B, DOE has started the test plan for hot testing at 100-N along with the installation of the apatite barrier using American Recovery and Reinvestment Act (ARRA) funding. DOE completed upwelling studies and found that there was no Sr-90 in the river except in one area near the fuel basin. He said aquifer tubes were installed to get a better handle on the Sr-90 issue in this area.

Nathan Bowles, CH2M Hill Plateau Remediation Company (CHPRC), presented a chart showing the Sr-90 levels and said the trends are lowering. He said there will be three rounds of sampling over the next year in the 100-N Area.

Mike Faurote, CHPRC, said there are some TPA change package requests for aquifer tubes and groundwater samples. He said since 1995, 235 groundwater samples have been taken.

Mike said high water was just passed and CHPRC will conduct sampling. He then presented the monitoring well network and passed it around stating that DOE has implemented a lot of bore holes and is well covered.

Mike said there is a proposed plan that would amend the 1999 ROD, which is at a publishable point and will be released June 21 for public comment. It amends the existing ROD and says to keep doing pump and treat while continuing to test other potential technologies. He said DOE is focusing on the apatite sequestration as an option. The pump and treat system is being shut down. He said the proposed plan will allow DOE to move forward with apatite testing and evaluate it fully.

Regulator Perspective

- Nina Menard, Washington State Department of Ecology (Ecology), said Ecology realizes that monitoring is occurring. However, there is a problem with where the samples were taken and what they were for. Ecology believes there are some data gaps. She said remediation for petroleum is another issue, and Ecology is in the process of gathering comments.
- Craig said this is an Ecology lead and that EPA is assisting. He said it looks like DOE has done a better job of displaying information.

Committee Discussion

- Pam asked if Ecology is happy with the changes made to the 100-N Area RI/FS work plan. Nina said yes, Ecology had hoped for additional changes.
- Pam asked what the Sr-90 target date is and if there will be continued remediation. Mike said the target date for Sr-90 is 2016 and the proposed plan will lay out the remediation plans.
- Shelley said she has not had time to go through draft B thoroughly. She said looking at contaminants is especially important. She is also concerned about the metal contaminants. Mike said there will be further investigation and sampling for metals. He said cobalt, copper, silver, nickel and others are being investigated
- Jean asked if the soil is going to be characterized. Rochelle Hale, Washington Closure Hanford (WCH), said the information on the metals and soil characterization has been enhanced, and there is not a need for more characterization. Alicia Boyd, Ecology, said some of the groundwater characterization will cover some of these issues.
- Dale said this presentation makes the differences between draft A and B clearer. He said there are still some places in the advice that the RAP committee is concerned regarding DOE's approach. He said one of the biggest concerns is that there might not be enough characterization, which has been somewhat put to rest. He said there have been some conclusions drawn on the contamination in the

Ringgold Upper Mud (RUM) without a well there. Mike said the distribution of Sr-90 goes down with depth, and he said Sr-90 in the bottom of the aquifer is low, but tritium was lower, which is shown with one well. He said the contaminants that bind with the soils have been taken out. He said anything that was mobile was quickly flushed out to the river. Dale said there are some other contaminants aside from Sr-90 that have not been tested thoroughly. He said the RAP committee is trying to promote some of these concerns in order to get some of the budget allocated. He said the advice will be revised, and there is an attempt to keep it at a policy level. Mike said the interim goal is to get a work plan approved. He said DOE will consider the advice, and the work does not end with the ROD. The input will be considered. He said there is no such thing as a final ROD since it is still periodically reviewed.

- Pam asked if the tritium is from the N-Area. Mike said the tritium is from the fuels stored at 100-N.
- Pam asked about the hot phyto extraction. Nathan said CHPRC has started drafting the test plan for the phyto extraction study and will be giving it to Mike Thompson fairly soon to look at. He said CHPRC would like to start field implementation on hot phyto extraction this fall. Pam asked when the RAP committee should ask for a briefing about this. Nathan said the information should be ready by the August RAP committee meeting, and it can be supported by PNNL. Mike said phyto extraction will be a technology that will create some disruption with stakeholders. He said there has been testing, but there are concerns that will have to be addressed, which will be evaluated while moving forward with the proposed plan.
- Susan reminded Dale and Shelley to consider Ecology's issues when developing advice.
- Maynard asked if field work in the 100-N Area is seasonal because in the past things got delayed and money was lost due to timing. Nathan agreed and said planting is normally done in the fall. He said the plants take in the Sr-90 like calcium, so DOE will be able to tell if the plants are getting the Sr-90. He said the barrier approach is meant to mitigate the soil near the shore. Mike said the barrier will attempt to stop the Sr-90 and let it decay, and the phyto extraction is to deal with the near shore contaminants. He said the information on what will be implemented will be in the proposed plan. DOE will not go forward if the stakeholders do not approve of the approaches. He said worker safety concerns are being resolved.
- Shelley asked if there have been discussions about plantings to deal with nitrate. Mike said the general approach is that if there is a pump and treat system dealing with another contaminant, DOE will take out the nitrate as well. He said there is not enough funding to spend money on nitrate, but DOE knows where the nitrate is and what levels it is at. He said there is not an exact plan for nitrate due to the source sometimes coming from the breakdown of other materials.
- Jean asked how the river structures are being dealt with. Mike said DOE looked at the river structures years ago and did sampling in the pipes and found they are not

highly contaminated. He said the physical hazard is the biggest risk, and there is no characterization proposed for these structures due to past information. DOE will make sure the sites meet the final ROD standards.

- Shelley asked why sites are being backfilled that have been remediated to interim standards. She said it does not make sense to dig the sites up again. Nina said since the RODs are not final, Ecology does not have the authority to tell DOE to cleanup to final ROD standards as they do not exist yet. Jean said in the TPA it states that if Ecology disagrees with actions they can change it. Craig said it is difficult to do that when the ROD is being followed. Mike said MTCA becomes a requirement with the ROD, and this analysis has not been done. He said dust control is a concern with waste sites being left open, and the environmental risks have to be weighed.
- Alicia said Ecology will have their comments on the 100-N Area work plan available next week.
- Dale said the issue managers will start the email process of revising the advice. He said by next week would be a good time to send comments.

Committee Business

Pam said the issues on the list for the RAP committee to cover are not time sensitive for the most part. She said lessons learned from 100-D is of interest. Shelley said she has not heard anything new on the 100-D leak, and she thought there was a lessons learned document. Jean said Ecology is going to send a letter. Pam said the RAP committee has been briefed on it.

Pam said the lysemeter is not time sensitive and it can be on the site tour. Liz asked if the site tour is in September committee week. Susan said yes.

The committee agreed to not meet in July.

Pam discussed the August meeting. Craig said CW 5 should be moved to September. Pam said to keep 618-10 in August. Jean said for the Yakima sturgeon sampling should be put on hold. Pam said Applicable, Relevant and Appropriate Requirements can stay in August. Craig said yes, and EPA can cover comments on the EIS. Susan suggested a July call to go over meeting topics.

Maynard said at the Health Safety and Environmental Protection (HSEP) committee meeting Mission Support Alliance (MSA) and DOE gave a good presentation on infrastructure. He asked if there should be a presentation on infrastructure in the RAP committee, or to the HAB. He said the preventative maintenance program might be something that needs to be addressed. He said there are also budget issues on not having a Project Baseline Summary for infrastructure. Barb suggested sending out the presentations given in the HSEP committee meeting to the RAP committee. Shelley said the water issue is planning on being addressed site wide with the 100-D leak as an example.

Shelley said the deep vadose zone is another issue that needs to be addressed. Craig said the technical forum dates are still being worked and will be the week of the 19th of July. Barb said there is a DOE exercise that will possibly conflict. Susan said the number of people is being limited and it will be a very technical, the HAB gets 3 people to attend and they can report back in august.

Barb said the ET Barrier primer is on hold.

Pam said the permafrix tour needs to be rescheduled. Gerry said the tour might take about two hours with discussion on how they process mixed waste and the plans for processing in the future.

Action Items / Commitments

- Insert action items or commitments.
- Insert action items or commitments.

Handouts

NOTE: Copies of meeting handouts can be obtained through the Hanford Advisory Board Administrator at (509) 942-1906, or tgilley@enviroissues.com

- 100-N Area Draft B changes.
 - Changes to DOE-RL-2008-46-ADDS for Draft B.
 - Chapter 23.28 – Business Zoning Districts.
 - Comprehensive Land-Use Plan Map, DOE.
 - Draft HAB Advice on the integrated 100 Area RI/FS work plan.
 - Hanford Comprehensive Land-Use Plan Environmental Impact Statement, Boyd Hathaway, DOE-RL, May 21, 2010.
 - Hanford Past Practice Strategies Diagram, DOE.
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Attendees

HAB Members and Alternates

Shelley Cimon	Susan Leckband	Dick Smith
Ken Gasper	Jeff Luke	Maynard Plahuta
Harold Heacock	Liz Mattson	Jean Vanni
Pam Larsen	Gerry Pollet	Gene Van Liew

Others

Paula Call, DOE-RL	Alicia Boyd, Ecology	Nathan Bowles, CHPRC
Ellwood Glossbrenner, DOE-RL	Nina Menard, Ecology	Mike Faurote, CHPRC
Jim Hansen, DOE-RL	John Price, Ecology	Ted Respashy, CTUIR
Mike Thompson, DOE-RL	Craig Cameron, EPA	Cathy McCague, EnviroIssues
		Blair Scott, EnviroIssues
		Barbara Wise, MSA
		David Bernhard, Nez Perce Tribe
		Rochelle Hale, WCH
		Mike Priddy, WDOH