Environmental
Restoration
Contractor

ERC Team
Meeting Minutes

Job No. 22192
Written Response Required: NO
Due Date: N/A
Actionee: N/A
Closes CCN: N/A
OU: GW/VZ100
TSD: N/A
ERA: N/A
Subject Code: 8830/4170

CCN: 070279

SUBJECT **GW/VZ INTEGRATION PROJECT OPEN MEETING – JUNE 7, 1999**

TO Distribution

FROM Michael J. Graham, GW/VZ Project Manager

DATE June 15, 1999

ATTENDEES
See Attached List

DISTRIBUTION
Attendees
GW/VZ Distribution List
Document and Information Services H0-09

NEXT GW/VZ INTEGRATION PROJECT OPEN MEETING:

Next Meeting:	Monday, June 21, 1999 – 1-3 p.m.
Location:	Bechtel Hanford, Inc., Assembly Room (Badging Required)
Local Call-In Number:	(509) 376-7411
Toll Free Call-In Number:	(800) 664-0771

MEETING MINUTES:
A Groundwater/Vadose Zone (GW/VZ) Integration Project Open Meeting was held on June 7, 1999 in Richland, Washington at the Bechtel Hanford, Inc. (BHI) Assembly Room.

PROJECT REPORT:
OPENING COMMENT (Dru Butler):
One of the goals of the Open Project Meetings was for them to be informal brown-bag sessions to keep the lines of communication open between the Project and the various stakeholders, regulators, and Tribes. I'd like to see things be a little more interactive. These meetings seem to have become less interactive and more focused on simply providing information. I'd just like to encourage everyone to make comments and ask questions at any time.

REGULATORY PATH FORWARD WORK GROUP (Dru Butler):
We've prepared some material showing various regulatory drivers and requirements. Phil Staats has taken the materials back to the Washington State Department of Ecology (Ecology), and the managers and staff at Ecology are reviewing them. I'd like to apologize for canceling some of the recent meetings of the Work Group on such short notice. We would like to hold off on scheduling further meetings for the Work Group until after Ecology has had a chance to review the materials and we have resolved a few things in house at BHI, at which time we'll reconvene the Regulatory Path Forward Work Group meetings.

<u>SYSTEM ASSESSMENT CAPABILITY (SAC) WORK GROUP (Bob Bryce):</u>
The System Assessment Capability (SAC) Work Group met on May 26 with a kick-off meeting to get things moving once again and identify topics for the next few meetings. For now, the focus is the development of the conceptual models, mainly the environmental transport portions. We'll be working on those for the rest of this month. We have a meeting scheduled for June 17 to discuss the River Technical Element. The Groundwater Peer Review Panel will be here on June 22 and 23 to continue their review of the consolidated sitewide groundwater model. This group is supporting the Department of Energy Richland Operations Office (DOE-RL). They have been here before, and they are returning to interact with stakeholders. Following the Peer Review Panel, we have a SAC Work Group Meeting scheduled on June 24 to cover the groundwater conceptual models so that we can discuss that while it's still fresh in everyone's heads. On June 29, we have a meeting scheduled to discuss the vadose zone conceptual models.

The process is to have the technical teams pull information together on the various Technical Elements. They'll look at how modeling may have been done in the past and how the core projects are looking at modeling. They'll talk to stakeholders and interested parties to capture their viewpoints. The technical people will then take all that information and roll it together.

QUESTION: At a previous meeting there was a request to look into producing a high level conceptual model for the entire site. Where does that stand?

ANSWER: Dave Holland, Bob Bryce, and Barbara Harper have talked about it, and it will be discussed at the work group meeting this afternoon. We'll be looking at each of the conceptual models over the course of the next month.

QUESTION: Can you define the level of a high level model?

ANSWER: It should be 3 or 4 pages describing the path of contaminants through the vadose zone to the groundwater and from there to the Columbia River. It would state what we anticipate capturing in the first iteration, versus the second and third, and how we plan to develop the models over time.

QUESTION: Would it discuss engineered barriers at the downstream end of the system?

ANSWER: That's the kind of thing that would be in the detailed models. They would talk about things like containment and containment failure.

QUESTION: Would this be at a cartoon level or something more substantive?

ANSWER: It would be more of a cartoon level. The individual models would be more detailed.

Today, there are two SAC Work Group meetings. The first meeting was this morning and covered the topic of the Risk and Impact Dependency Webs. There will be a number of follow on meetings for that as the metrics and conceptual models are developed. The meeting this afternoon will cover the conceptual models in general.

OFFICE OF RIVER PROTECTION (ORP)/PROJECT HANFORD MANAGEMENT CONTRACTOR (PHMC) UPDATE (John Williams):
We've completed installing single shell tank boreholes in accordance with a Tri-Party Agreement (TPA) Performance Milestone. We've also begun the decommissioning of borehole 41-09-39. The lower portion is basically completed and grouted. We started some neutron and spectral gamma analysis over the weekend, and the data gathered from that will guide subsequent activities. We'll know more about how it's going in the next 48 hours. We're using a sidewall sampling technique.

We've also received comments from Ecology on the new borehole drilling planned near SX-115. We will be getting with Ecology later this week or early next to resolve those comments. We are working to ensure an appropriate safety basis for the work and completing the change package. We will be talking with DOE today to that end. The proposed technique to be used on the borehole by SX-115 is reverse-air drilling.

Another issue we are facing came out of the Data Quality Objective (DQO) process. There was a good deal of additional sampling and analysis requested that was not originally planned for. That has increased the cost involved considerably, and we are in the process of resolving funding.

QUESTION: There was a question raised about a Baseline Change Request (BCR) from the last meeting. What's happening with that?

ANSWER: That has been approved and supports meeting the associated TPA milestone.

QUESTION: What is reverse-air drilling?

ANSWER: Basically it involves blowing air down the hole and drawing it back up into a filter. It reduces the possibility of contaminant drag-down. It should allow us to collect a nice, continuous representative sample.

QUESTION: Is this a new technology?

ANSWER: It is new to the tank farms, but it is not a new technology.

SCIENCE AND TECHNOLOGY (S&T) UPDATE (Terri Stewart):
The Science and Technology (S&T) Roadmap is in the process of being revised and will be coming out at the end of June along with the Project Specification (Spec). We are continuing to develop the scope and establish the linkages to users, budget, and priorities. The revisions are mainly the result of comments from the GW/VZ Expert Panel and the public. We've received guidance from DOE-RL on budget and support needs. There have also been changes as a result of the S&T involvement in the DQO process for the S/SX Workplan and the Resource Conservation and Recovery Act (RCRA) Facility Investigation/Corrective Measures Study (RFI/CMS). Based on interaction from the last few months, we are making revisions that show more clearly the linkages to other site projects, specifically to the SAC and River Protection Project (RPP). We're updating the scope and outcome in order to be more descriptive. We're also linking to the Site Technology Coordination Group (STCG) needs outlined in April, and we are backing those into the system.

The fact that many of the S&T needs that were in the December version of the Roadmap have been picked up by different projects is another factor. We have seen a lot of progress. For example, the RPP has done some work on unplanned releases that were showing on the Roadmap. The SAC has picked up some items as well. This version will start showing that, as well as some of the Environmental Management Science Program (EMSP) pieces making a contribution. These are some of the things you can expect to see in this next update.

QUESTION: You say the SAC has picked up some items. What is the relationship?

ANSWER: When the S&T Roadmap was initiated last summer, the SAC was in its infancy. Its definition and detail has increased dramatically this fiscal year (FY). One of the items in the S&T Roadmap was the development of various conceptual models, and the SAC has picked those up. We're planning on keeping those items in there for this version, but we'll gray them out to show that they were included in an earlier iteration, but now they are covered elsewhere. Having a better understanding of the SAC is a big help.

QUESTION: Will the S&T Roadmap be able to evolve to respond to new developments or the unexpected? For example, in the screening assessment for the Columbia River Comprehensive Impact Assessment (CRCIA) there was an issue raised dealing with uncertainty about the effects of heavy metals on the Columbia River. Then I saw something on bioavailability of heavy metals, which seemed like a perfect fit. Is this something that S&T will cover, or is it covering broader issues?

ANSWER: There's a two-part answer for that question. First, the effects piece should be covered under the river technical element of the SAC. S&T includes fate and transport and would cover that aspect. The second part of the answer is that the S&T Roadmap will continue to evolve as the SAC continues to define its requirements. As the SAC moves from Rev. 0 to Rev. 1, gaps will continue to be identified, and that's why we have annual updates planned. The first will be in December of this year. Over the weekend, I (Terri Stewart) went through the SAC and GW/VZ Long Range Plan (LRP) identifying connection points and opportunities for both to communicate their needs. This would be followed by added detail in March, which would help us adjust our planning for the following FY. We're lining things up to keep the lines of communication flowing between S&T, the Core Projects, and SAC so that when problems are better defined or solutions are found everyone is aware and benefits.

COMMENT: At the Expert Panel meeting someone indicated that there was a near-term analysis coming. Are you waiting with baited breath to see what weaknesses it identifies? That generates needs. As we learn, we identify what we need to know. It seems that the thinking here is to identify needs without first making progress.

RESPONSE: Let's look at an example for inventory. We pulled together inventory related projects in May and checked them against the S&T activities for inventory to see what we know and don't know. We sat down and had discussions with the projects based on their statements of work. We looked at plant cooling water, chemical sewers, large surface spills, etc. We looked at the pieces currently available for Rev 0 of the SAC and at what data gathering needs to be done by March 2000. We need to make sure we're not duplicating data gathering efforts by understanding what other projects are doing, specifically the RPP. It gave us a chance for a technical interface.

Another ongoing S&T activity is the funding we're seeking from the EMSP. The schedule is something like this. This week the proposals are undergoing a technical merit review in Washington, D.C. The Office of Science is reviewing the technical quality of the proposals. In two weeks there will be a relevancy review here on-site. This review will have strong participation from the federal folks, and they will be looking at the relevance of the proposals for Hanford and other DOE sites. The EMSP will hand out awards in August, so that by September we will know what will be funded by EM. That will let us have some flexibility with the work plan for next FY, and we can overlay that in the roadmap for the next version.

PROJECT SPECIFICATION UPDATE (Bruce Ford):
This is review for some of you. We are working toward delivering the Spec to DOE-RL on June 30. As a Project, we have tried to be responsive to comments received. We've taken the different products included in the previous version of the Spec and broken them out into companion volumes to help provide better focus. There are five volumes planned. Volume 1 is a smaller more focused version of the Spec than the previous draft. Volume 2 provides background information and the current state of knowledge. The SAC will be Volume 3, the S&T is covered in Volume 4, and then there is a new portion added to the June 30 Spec for configuration control. That will be Volume 5.

QUESTION: Is the SAC well enough developed to be issued as a volume by itself?

ANSWER: Allow me to back up for a second. It is a planned volume. We're still in the process of filling out what that activity is going to be. Right now what we have is the early planning materials. For now, it's going to be going into Volume 1 as an appendix. As the state of knowledge of the SAC expands and it becomes better developed over time, then it will break out into Volume 3.

Volume 1 is focused strictly on the Project Specification. In response to comments, this version is focused on looking forward instead of reiterating background information. Volume 1 is focused on information on how we'll manage the work. All the history has been pulled out and will be in Volume 2. Section 1 of Volume 1 focuses on why there is a need for the GW/VZ Integration Project. Section 2 gives the Mission Analysis. It addresses what the Project must do to be successful and identifies the customers for the Project. Section 3 covers the Project scope and planning and provides information on how the Project is set up to perform its mission.

Currently there is a draft undergoing internal review and everything is on schedule for the delivery of the document to DOE-RL on June 30.

QUESTION: Would you care to add anything from the Regulatory Path Forward Work Group?

ANSWER: I (Bruce Ford) would like to apologize for not being here earlier when the work group was discussed, so much of my comment may be review. Essentially we're in a holding pattern, and there is no follow on meeting currently scheduled. We're working with Phil Staats from Ecology right now, and we have provided him with a set of working materials. My understanding is that Ecology management is currently reviewing those, and comments are due to Mr. Staats by June 11. Once the comments have been submitted, I'll get with him to find how long he needs to work on the comments. We'll decide then when to schedule the next meeting and where we need to focus.

QUESTION: This is a group that interests a lot of people. How far are you planning to go beyond the simple regulatory requirements? When do you see these materials going out for a more general review process?

ANSWER: We're not that far in the planning yet. We're just looking at the supporting material right now. There is no date for getting materials out more broadly. We'll raise that as an issue at the next meeting and decide when it would be appropriate.

COMMENT: The Regulatory Path Forward Work Group reports back to the stakeholders via this bi-weekly Open Meeting as well. They give us progress reports here.

QUESTION: For instance, one thing people would like to know is what are you collecting data on?

ANSWER: Mostly regulatory requirements and drivers and such.

QUESTION: Have you taken Tribal treaties into account yet?

ANSWER: That's something we've looked at from a high level but haven't fully developed yet.

QUESTION: When will you be able to share what you have with us (stakeholders)?

ANSWER: We'll discuss that in the work group and decide what would be the best forum to get things to a wider distribution.

COMMENT: If you have things you'd like considered, just let the Work Group know.

RESPONSE: We can always comment after the work is done, but it would be much more efficient to see things before hand.

COMMENT: We've discussed things briefly with the Hanford Advisory Board (HAB) Environmental Restoration (ER) Committee.

QUESTION: But when will it go to everybody?

ANSWER: I don't have an answer for that yet.

COMMENT: This is something even the Core Projects have not seen yet.

QUESTION: Is it simply a list from which requirements are drawn?

ANSWER: It is that and more. It compiles all programs and decisions to this point.

COMMENT: It's framed around the facilities and waste types around the site, such as the reactors by the river, 100 Area, 200 Area, etc. We're keeping things grouped by how they are grouped onsite to aid understanding. Tom Wintczak has developed a detailed chart that is divided by area. Once we have everything grouped, then we can look at what regulatory drivers and requirements apply. We can look at what decisions have been made, both interim as well as final. We've also worked up a general description of what waste types are where.

COMMENT: There have been exercises like this before where you have so much data stacked floor to ceiling that there wouldn't be enough time to comprehend it all, even if you combined the number of lifetimes in this room.

RESPONSE: The tables are very helpful, if not fully self-explanatory. I (Gordon Rogers) was amazed at the volume of regulatory requirements and decisions that are already in place and binding.

COMMENT: Plus the nature of the Code of Federal Regulations (CFR) and DOE findings is that there is so much that doesn't matter. You need to sort out the things that matter from the things that don't, like speed limits or security measures and such.

RESPONSE: We've wrestled a little bit with that. We're keeping things at the upper level requirements. We're putting together a timeline to show how the different requirements interact.

COMMENT: It also allows us to see where there are inconsistent assumptions. That's something we need to get our arms around for the SAC.

QUESTION: Is the Environmental Protection Agency (EPA) involved?

ANSWER: They have had representatives involved, but not at this last meeting. Tom Post was their representative but he has resigned from EPA. They are still determining who the replacement representative to this Project will be.

COMMENT: All materials prepared by the Work Group have still been going to EPA electronically in the interim.

QUESTION: How do you see this fitting in with the Hanford baseline? At what point does the Project tie in?

ANSWER: One of the things System Engineering (SE) is doing that ties into the regulatory framework, is developing a baseline of customer requirements. There are a lot of requirements floating around out there. We need to establish control over them by developing a formal requirements management process. We need to define how things are binned. By binned, I mean separating things into their different areas, like the technical requirements for the SAC, the program requirements for the different projects, DOE and Tribal requirements, etc. We need to determine how they apply. If we don't establish a process, we'll end up swimming in a morass of expectations that are not under our control.

QUESTION: Is this an information needs process? Have you taken into account the CRCIA requirements for the SAC?

QUESTION: Isn't that what has been going on for the last six months with the SAC Work Group?

ANSWER: I'm not talking about the requirement sets, but rather the overall management requirements.

RESPONSE: The SE effort is only two months in, and we're starting at the top and working our way down. We're trying to give you the intent.

RESPONSE: Part of the answer to your concern is that many of the CRCIA issues that weren't directly tied to the assessment requirements sets were identified as policy issues, and those were referred to the Policy Work Group. It's not all-inclusive. Where the SAC Group felt there were multiple answers open to interpretation, we let the Policy Group tackle it. This was an open process in which all interested parties were invited and welcomed to participate. It was agreed on by everyone concerned that this was the best way to keep moving forward without bogging down.

COMMENT: We're pulling together a snapshot of current regulatory drivers, TPA milestones, Tribal treaties, etc., and we're grouping those by functional area. Then there is the problem that there is not a realistic baseline comprised of all the projects on-site. You need to see how all those come together. That's something we'll contribute to, but it's not something we'll manage. As in the past, we'll continue to utilize the HAB as a forum for resolving the big issues at Hanford, such as policy and endstates. I'm not sure of specific details, but one of the primary paths is through the HAB.

COMMENT: That is not the only path though.

RESPONSE: I agree completely, but it's definitely a key group you need have endorsement from. There are also the regulators and the Tribal Nations, among others.

QUESTION: What are you doing to satisfy CRCIA Part II?

RESPONSE: CRCIA is a starting point. We've reviewed and discussed every requirement through an open review process, but we're not going to be able to satisfy everything. If a particular requirement is unachievable or just didn't make sense, we've tried to explain why.

COMMENT: We left that point a long time ago. We all participated in the SAC Work Group meetings, and through those meetings the CRCIA requirements were transformed into Project requirements. It seems to me (Marty Bensky) that we're way past the point of, in your words, "satifying CRCIA." I don't understand why you keep going back to it. All assumptions don't have to be approved by the CRCIA team.

COMMENT: I (Michael Graham) don't think we're really going back to it. I think it was inadvertently brought back in the course of trying to answer a question.

QUESTION: The question is simple. Is CRCIA a template or not?

ANSWER: CRCIA is a starting point.

RESPONSE: Starting point implies that you're going to make something better than it started off being, not that you're going to back off from it.

RESPONSE: The commitment was never to follow CRCIA to the letter. It was to determine how it could be used as a tool to move forward. If there is a requirement not being met we're documenting how we came to the decision to not meet it and why.

QUESTION: Where are these decisions taking place? When is there a requirements document coming out? It would be nice to have something to go through that describes what is to be implemented and what isn't.

ANSWER: There were discussions in the SAC Work Group this fall where a crosswalk of all the CRCIA requirements was discussed. A matrix was prepared listing each individual requirement. Then each individual requirement for the assessment was covered one by one, and it was discussed how each would be incorporated. There is a copy of the matrix available for download from our Project webpage (http://www.bhi-erc.com/vadose/sac.htm).

QUESTION: That's the interface?

RESPONSE: Partly. CRCIA is a sort of laundry list for the SAC.

RESPONSE: As we've laid out our approach to the SAC, we've worked to address the different aspects of the CRCIA plan. The SAC candidate sets capture the completeness aspect of CRCIA, while the scoping studies deal with dominance. We have also identified uncertainty as an important component of our assessment, and the fact that we will do multiple iterations and improve each one allows us to address fidelity. We view CRCIA as a template with a list of requirements and guiding principles, which we have incorporated.

QUESTION: When will something be published? It's difficult to interact with something that's so fuzzy. It would help to have something concrete.

RESPONSE: There are a number of documents planned. Right now, we're in the process of going through the various conceptual models. We should have uncertainty and approach developed by the end of the fiscal year.

COMMENT: There is also a requirements document coming by the end of the fiscal year. That should better explain what the SAC would do.

COMMENT: Rigor and fidelity will be issues from now on, but there are some things that defy verification. Mutigenics is an example, since I assume there no plans for human experimentation. Some things are by necessity negotiable.

QUESTION: Do you speak for the Project?

ANSWER: No, just for myself (Marty Bensky).

RESPONSE: It appears he has all the answers for you people. I (Greg deBruler) want answers from the Project, not the public. Linda Bauer from DOE-RL was specific that CRCIA was going to be used as a template, and that there would be interface with the members of the CRCIA Team. How are you creating that interface? For example, on June 17 you have a SAC Work Group Meeting scheduled from 1-4 p.m. to discuss the River Technical Element. How could you possibly cover everything involved with this element in a three-hour block?

RESPONSE: These are just work group meetings. It's not the end of all discussion.

COMMENT: On June 24, you're discussing the groundwater modeling, and on June 29 you're discussing the vadose zone models. Both of these meetings are scheduled for three hours. There are issues that need to be addressed. If you're looking for effective interface, this is an awfully small window to be involved. You need to be integrated with the CRCIA Team in order to capture the behind the scenes thinking that went into the requirements. There seems to be no chance to interface until after it's already out of the box.

COMMENT: There isn't enough information to be able to contribute meaningful comments.

QUESTION: For example, you say you're incorporating the CRCIA requirements, but where are they? When can we expect to see a crosswalk of how it's being transferred from CRCIA to the SAC?

ANSWER: There was a rather detailed white paper drawn up in early April that covered the Candidate and Study Set Criteria and Proposed Scoping Studies. There was also a matrix of the CRCIA Part 2 requirements that came out of the SAC Work Group, which showed the Work Group comments on each individual requirement. Both of those were distributed to the SAC Work Group, and they have been available for download from the Project Website since then.

COMMENT: Comments on the SAC Work Group operations or products should be directed to Bob Bryce or Charley Kincaid of Pacific Northwest National Laboratories (PNNL).

COMMENT: How do you go about establishing an effective interface? If that is missing from the process, you are going to get slammed from all sides by the public. For example, how do you go into sufficient detail on something in two hours when it took two and a half years to develop? Where is the timeframe to interface? My (Greg deBruler) understanding was that this was to have been resolved by May 15.

QUESTION: What are you talking about?

ANSWER: If you don't know, then you need to talk to Steve Liedle (BHI).

COMMENT: This is supposed to be a brown-bag, not a food fight. This is not constructive.

COMMENT: One of the issues here seems to be the status of the regulatory framework. There seems to be a very well set protocol for documents for typical projects where the documents are scoped, developed, and go out for public review. There is nothing that specifically applies to the GW/VZ Project that covers that. That seems to be the main basis for the problem right now. There are workshops and discussions and meetings on specific topics as things are produced, but there are so many different aspects of the Project in development and so much activity surrounding each part that it becomes a very difficult process to define. There are all kinds of pieces coming in, but no template to borrow from to define the process. You can say we'll include CRCIA, stakeholders, regulators, and the Tribes, but defining the process is a little tougher.

COMMENT: The process seems to start out like this. You describe the "how" and "what" and the general assumptions and pull the document together. If it is to be a primary decision document, then it goes out for review. What do we do with it then? What's the next step? There are usually workshops to discuss it, but is everyone there to get an information update, or are we there to agree with the document and provide consensus to go on to the next step? There really needs to be a thread going through everything. The process has not been developed how tools get validated. It simply doesn't exist. These are the kind of things that need to continue to be discussed.

RESPONSE: Defining the process is something that SE will work on down the line. The process might be confined by whether we are working within CRCIA or DOE requirements or whatever, but process is still yet to be defined. CRCIA itself is not a defined process. That will be something to come out of the SE effort.

COMMENT: One of the things the mission analysis covers is just that issue. There is currently no requirements management process that shows people what the official position is on what needs to be complied with, either within the Project or outside. If you know what the process is and what is required, then things get much simpler.

COMMENT: One large point of concern appears to be the Hanford Site Model and how it is used to guide decision processes. Within that would be smaller pieces for individual projects. It needs to have requirements that talk about the overall guiding process for decision makers to follow.

RESPONSE: That's something that will be created, but at a larger program level.

COMMENT: The program level still needs to fit into the whole picture.

COMMENT: We've strayed from the original topic of trying to get documents out to people.

COMMENT: SE needs to be very familiar with the CRCIA principles.

COMMENT: CRCIA is a laundry list, but that's just part of it. It is also a systems-level way of thinking.

RESPONSE: SE is familiar with that, but that seems to raise a question of accountability.

RESPONSE: That goes back to the decision-making process. Who's requirements are important and who's are not? It's a mixed message being sent. Part of the idea of CRCIA was that if a certain requirement was important to a certain stakeholder or group, then an attempt was made to include it. Even if someone felt it wasn't important, if there was a strong enough feeling from a particular source that it should be included, then it was. What's important to one person isn't necessarily important to someone else. Now we're hearing that decisions are being made as to what requirements will and won't be used for the initial assessment. I assume the decisions are in the realms of DOE or the contractors, but it's not clear how that is evolving. As a regulator (Ecology), we have some power, but we're not the ones making the decisions. We provide input on the acceptability of a product and help to minimize the probability of failure of a product, but the process is just as important to us as the product. The process is very cloudy right now.

COMMENT: Your organization (Ecology) should have veto power.

RESPONSE: We prefer to interface before that point in order to ensure acceptability.

COMMENT: On the fidelity issue, it appears that there will need to be decisions made that CRCIA won't solve. They'll need to be resolved by what we can reasonably do and a decision of how much is enough. Do we settle for the data we've already got, or do we go out and get more? CRCIA identifies issues, but it by no means solves issues.

SYSTEMS ENGINEERING UPDATE (Mike deLamare):
People want to know what we've done and where we're headed. We've laid out a plan for the next three to six months, but right now we have more work to do than people to do it. We're working on resolving issues for SE management of all aspects of the Project. There is a mission analysis going on, but it's a very rough cut right now. It's showing that there are gaping holes that still need to be filled. Customer requirements are a big issue there.

One of the things we want to do in the near future is schedule times to talk to the interested regulators, stakeholders, or Tribes on a one-on-one basis and explain how SE applies to the GW/VZ Integration Project, what it does, and where it's going. The reason we'd like to do this in a one-on-one forum is to be able to cover questions in greater detail. We'd like to do that sometime over the summer.

QUESTION: When the concept of SE was introduced at the Expert Panel meeting last month, it came as a surprise to many people. The stakeholders didn't even know about it for the most part, but they should have been involved from the very start. The Panel was concerned about the lack of involvement. Since the work had just started, the Panel chose to defer looking at the SE work in depth until it was better developed, but they did show interest. They just felt it was too early to present. They were even surprised it existed to a certain extent. What are you doing to get the word out?

RESPONSE: That's part of the idea for the one-on-one meetings. It would help people understand the purpose of the SE effort. We're just waiting to get a more developed product and to be able to present it in a rational way before we schedule the meetings.

RESPONSE: Presenting to smaller groups is a good idea.

COMMENT: It's just not clear whether SE fits in as a sub-set of a piece of the Project or as an additional piece by itself.

RESPONSE: It's independent, but it's tied into all of the aspects of the Project.

QUESTION: When we have discussions on Project issues, there are so many pieces scattered over such a broad playing field that when an agreement is reached, it can't be assured that any decision will stay binding. People generally don't want to put a lot of time into something that's just going to be overturned at a later date. How do I know I'm working with the right person and that my work will be meaningful? Nobody likes wasting their time.

ANSWER: We're headed in that direction. Right now there's no formal process to track issues or decisions. We need to be able to track what the issue was and how it was resolved. That's where we're headed.

COMMENT: The idea is to maintain decisions in a traceable fashion.

QUESTION: With the fast track that the SAC and Regulatory Path Forward Work Groups are on, how important is it for someone to invest their time in the SE effort? It's never really even been discussed how SE fits into the overall Project.

ANSWER: I don't want to give you a picture that doesn't have a frame. We're building the frame for SE now, but it needs to be developed more before any dialogue would be meaningful. We'll look at the schedule and set up meetings when we have something more tangible to present. The trap we fell into with the Expert Panel was throwing something together before it was ready just because there was a meeting. We'd like to avoid that if possible.

COMMENT: It feels like we're losing touch with what's going on. There are a lot of new activities, but where is it most effective to invest time? The number of meetings is growing, and it's not possible to be at every one.

QUESTION: It's not just that, but it's the fact that we need to know that our time is spent efficiently. Once a group agrees on an issue, is the answer then locked down?

ANSWER: I (Michael Graham) would like to think so, but it's not traceable. We need to tighten that up.

QUESTION: Is this new task configuration control similar to the record of assumption process that's been talked about for years?

ANSWER: I think so. We'll be using the Features, Events, and Processes (FEPs) process as well.

COMMENT: That like comparing apples and oranges.

RESPONSE: That's just part of it though. You need to have a place that records agreements in order to have accountability.

UPCOMING EVENTS:
(Doug Hildebrand) The Groundwater Model Peer Review Panel will be here at Hanford on June 22 and 23. The focus of the first morning will be on stakeholder interaction with the panel. It will basically be for stakeholder questions and clarification and will be a question and answer session. The afternoon will be a follow up to their last visit. The second day the panel will have a closed session in the morning and offer a closeout report that afternoon.

QUESTION: Is there an agenda?

ANSWER: We're still working on it. We will distribute it as soon as it is complete. We'll try to have it ready in time to distribute with this meeting's minutes. (Attachment 1)

QUESTION: Where is the meeting being held.

ANSWER: They will meet in the Columbia River Room at the PNNL Environmental Technologies Building (ETB). It's the same location as their last meeting. (**NOTE: The location stated**

at the meeting was incorrect. The meeting will be held in Room 1077 of the PNNL Environmental and Molecular Science Laboratory (EMSL).)

The Oregon Hanford Waste Board is meeting next Tuesday (June 15). There have been rumblings that there has been a lot of money spent on this Project, but that it's hard to see what the results are. I (Steve Sautter) would like the Project to provide me with a listing of Project accomplishments that I could present to the board.

QUESTION: When would you need this listing?

ANSWER: I'd need before next Tuesday.

<u>PROJECT SPECIFICATION COMMENTS:</u>
QUESTION: I have a question on the Project Spec. With over 700 total comments on the Spec, will you be responding to them all?

ANSWER: We went through a first pass of the comments based on Draft C of the Spec. Since then, we've gone back and incorporated a great deal of new material, much of it during the last two weeks. The LRP and SE portions have been extensively modified. We've made the Current State of Knowledge into its own volume. Now we need to go back and look at the comments in light of these new sections. It will take us some time to answer all of the comments in writing, and it's not going to happen before the document is released on June 30. However, they have been taken into account during the revision process, and they will all be responded to formally in time. Were you referring to your comments in particular?

RESPONSE: In part, but it applies to everybody.

RESPONSE: Our official responses will come sometime following the June 30 delivery to DOE-RL, but we'd like to set up times to talk to the main commenters in person.

QUESTION: Since ORP submitted such a large volume of comments, have you talked with them? I understand they may have accounted for more than half of the comments.

ANSWER: We've talked with them via their Project representative, Tony Knepp. We haven't set up anything directly with their management, but we plan to.

COMMENT; Some of the comments will obviously take more time than others to resolve. There was a comment submitted on the State of Knowledge portion that will be very time consuming. If you get around to addressing it late in the process, then you'll run out of time.

RESPONSE: The State of Knowledge volume will be in revision through December. There will be time to address comments for that.

<u>**UPCOMING EVENTS AND OPPORTUNITIES FOR PARTICIPATION:**</u>
(See attached Look Ahead Calendar)

NOTES:
GW/VZ Web Site location: http://www.bhi-erc.com/vadose

If you have questions or comments please contact Dru Butler (509-375-4669), Gary Jewell (509-372-9192), or Karen Strickland (509-372-9236)

ACTIONS:
- Distribute agenda for June 22-23 Groundwater Model Peer Review Meeting (attached)
- Provide Steve Sautter with list of Project Accomplishments (attached)

ATTACHMENTS:
1) Agenda for June 22-23 Groundwater Model Peer Review Meeting
2) GW/VZ Integration Project Two Month Look Ahead Calendar

ATTENDEES:
Carol Babel – DOE-RL
Marty Bensky – Tri-Cities Caucus
Bob Bryce – PNNL
Dru Butler – BHI
Greg deBruler – Columbia River United
Mike deLamare – BHI
Dib Goswami – Ecology
Michael Graham – BHI
Mary Harmon – DOE-HQ
Barbara Harper – Yakima Indian Nation
Doug Hildebrand – DOE-RL
Dave Holland – Ecology
Rich Holten – DOE-RL
Michael Hughes – BHI
Katy Makeig – SMS
Fred Mann – FDNW
David Olson – DOE-RL
Gordon Rogers – Tri-Cities Caucus
Steve Sautter – ODOE
Stan Sobczyk – Nez Perce Tribe
Bob Speed – Ecology
Terri Stewart – PNNL
John Williams – FDH
Rob Yasek – DOE-RL

Attachment 1

Peer Review Site Visit Agenda
Hanford Site-Wide Groundwater Model Consolidation

Room 1077, EMSL Building

June 22 and 23, 1999

<u>Tuesday, June 22, 1999</u>

8:00 – 8:10 AM	**Welcome and Introductions**	Rich Holten, DOE/RL
8:10 – 8:20 AM	**Opening Remarks/Guidelines For Participants**	Dr. Steven M. Gorelick, Chair
8:20 – 9:00 AM	**Site Long-Range Plan and Applications w/discussion**	Doug Hildebrand, DOE/RL
9:00 – 10:00 AM	**Interaction with Regulator/Stakeholder Technical Representatives**	Expert Panel Members
10:00 – 10:15 AM	**Break**	
10:15 – 11:00 AM	**Interaction with Regulator/Stakeholder Technical Representatives (cont.)**	Expert Panel Members
11:00 – 11:40 AM	**Overview of Response to Peer Review Comments w/discussion**	PNNL staff
11:45 – 12:45 PM	**Closed Working Lunch**	Expert Panel Members
12:45 –4:30 PM	**Discussion of Path Forward**	PNNL Staff

12:45 – 4:00 PM Near-term Activities

12:45 – 1:15 PM Approach for Addressing Technical Issues

- Specification of Appropriate Uses of the Site-wide Model
- Identification of Conceptual Model Uncertainties
- Sensitivity Studies and Performance Measures

1:15 – 1:45 PM Appropriate uses of Site-Wide Model

Tuesday, June 22, 1999 (continued)

1:45 – 3:00PM Documentation of Conceptual Models, Uncertainties, and Sensitivity Studies
- Model Domain
- Hydrologic Boundaries
- Hydrogeologic Structure

3:00 – 3:15 PM Break

3:00 – 4:00 PM Documentation of Conceptual Models, Uncertainties, and Sensitivity Studies (continued)
- Flow and Transport Processes/Parameters

4:00 – 4:30 PM Long-term Activities
- Re-evaluation of Model Calibration
- Uncertainty Framework

4:30– 5:30 PM Open Discussion

Wednesday, June 23, 1999

8:00 AM to 3:00 PM Panel Closed Session (DOE and PNNL staff available to answer questions)

3:00 – 5:00 PM Closeout Session with Entire Group

Peer Review Team:
Dr. Steven M. Gorelick, Stanford University, Chair
Dr. Charles Andrews, S. S. Papadopulos and Associates, Inc.
Dr. James W. Mercer, HSI-Geotrans, Inc.

ATTACHMENT 2

GW/VZ INTEGRATION PROJECT

JUNE 17, 1999 – AUGUST 16, 1999

TWO MONTH LOOK AHEAD CALENDAR

June 17	GW/VZ SAC Work Group Meeting – River Technical Element (BHI Room 2A01 – 1-4 p.m. – Contact: Bob Bryce/Bob Boutin)
June 21	GW/VZ Open Project Team Meeting (BHI Assembly Room – 1-4 p.m. – Contact: Dru Butler)
June 22-23	Groundwater Model Peer Review Meeting (PNNL EMSL Building, Room 1077 - Contact: Doug Hildebrand)
June 24	GW/VZ SAC Work Group Meeting – Groundwater Conceptual Models (BHI Room 1B45 – 1-4 p.m. – Contact: Bob Bryce/Bob Boutin)
June 29	GW/VZ SAC Work Group Meeting – Vadose Zone Conceptual Models (BHI Room 1B40 – 1-4 p.m. – Contact: Bob Bryce/Bob Boutin)
July 6	*GW/VZ Open Project Team Meeting* *(BHI Assembly Room – 1-3 p.m. – Contact: Dru Butler)*
July 15-16	Hanford Advisory Board Meeting (Richland - Doubletree Inn)
July 19	GW/VZ Open Project Team Meeting (BHI Assembly Room – 1-3 p.m. – Contact: Dru Butler)
July 22	HAB-ER Committee Meeting (BHI Assembly Room – 9 a.m.-4 p.m.)
August 2	GW/VZ Open Project Team Meeting (BHI Assembly Room – 1-3 p.m. – Contact: Dru Butler)
August 16	GW/VZ Open Project Team Meeting (BHI Assembly Room – 1-3 p.m. – Contact: Dru Butler)