

Environmental
Restoration
Contractor **ERC Team**
Meeting Minutes

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SUBJECT GW/VZ INTEGRATION PROJECT WORKSHOP - JULY 14, 1998

TO Distribution

FROM Michael J. Graham, GW/VZ Project Manager

DATE October 2, 1998

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A Groundwater/Vadose Zone (GW/VZ) Integration Project Workshop was held on July 14, 1998, in Richland, Washington, at the PNNL Columbia River Room.

INTRODUCTION:

Last time we met we agreed that an all-day format would allow for the greatest productivity during these workshops. Today we are meeting to get into the details of where we are today and receive input and feedback on where we are going. We have provided copies of the evaluation form that was part of the Draft Public Consultation Plan for you to evaluate how we are conducting ourselves and to help us prepare effectively for future workshops.

We have heard in prior meetings that it would be helpful to have copies of all the information that will be shared in today's meeting. You will find these copies on the table in the hallway.

I would like to quickly review the agenda for today:

- 8:15 a.m. CRCIA ALIGNMENT
 - Report on white paper resolution
 - Discussion of alignment
- 9:15 a.m. PROJECT SPECIFICATION UPDATE
- 9:30 a.m. DISCUSSION & FINALIZATION OF PROJECT MISSION & OBJECTIVES
- 9:45 a.m. BREAK
- 10:00 a.m. CONCEPTUAL MODEL/SCIENCE & TECHNOLOGY
 - Project Approach (3 Bins)
 - Current Information
 - National Labs Update (modules and task assignments)
 - National Laboratory Meetings - July 16-17 and July 22-23
 - Discussion/Input
- 11:00 a.m. EXPERT PANEL CANDIDATE SELECTION UPDATE

MINUTES.WPD

11:30 a.m.	DETAILED WORK PLAN PROCESS
12:00 Noon	LUNCH
1:00 p.m.	DRAFT TRIBAL GOVERNMENT AND PUBLIC CONSULTATION PLAN
	<ul style="list-style-type: none"> ● Discussion of Plan highlights and purpose ● Identify methods for provided input/participation
2:30 p.m.	BREAK
2:45 p.m.	MEETING WRAP UP
	<ul style="list-style-type: none"> ● Action Items ● Discussion on improving future workshops ● Evaluation form ● Planning for next workshop – August 18, 1998
4:00 p.m.	Adjourn

CRCIA

Discussion by Thomas W. Woods: What is CRCIA? The acronym stands for Columbia River Comprehensive Impact Assessment, which began in February of 1995, following several years of discussion and debate between DOE-Richland and a variety of organizations as to what would constitute an acceptably comprehensive evaluation of the Columbia River and Hanford's impact on it. A team was organized of representatives of organizations which, in turn, represent a large segment of the potentially affected public. It took two years of meeting 1-2 times a week to identify and define everyone's concerns with past Hanford analyses and decide what should be included and what was important. How did we do that? CRCIA (that is Part II of the CRCIA document) contains requirement statements of what the analyst must include and what traditional Hanford study assumptions they must resist, including how such assessments would be managed. Given that the end state we are working for is the clean-up of Hanford, we must understand what happens to the contaminants in their final condition. How long does contamination last? How do released contaminants move through the vadose zone (if they move at all) and then into the groundwater and river? What is the possibility of diluted contaminants being reconcentrated? These questions must be asked each and every time a different end state is considered by the Site to determine if the clean-up process is acceptable.

When the Groundwater/Vadose Project began it did not have this scope. It was not looking at total site source terms and the affect of the different waste sites all the way to the receptors. Together we began to look at what needs to be done to pull these two perspectives together to where it is the same project. As we speak today, we have a good lead on this attempt. That doesn't mean that everyone see things the same way. Tony Knepp has been given the responsibility of writing a white paper that would begin to walk through the requirements of the CRCIA, addressing the Summary Principles and General Requirements (e.g., tracking uncertainty and balancing evenly across the entire assessment process). These have been addressed so far in the white paper. In most instances we have been able to achieve agreement by gaining a better understanding of what was meant in the CRCIA document. There are still a lot of open issues and questions on how we are going to accomplish certain items. That is why we need the Science and Technology (S&T) initiatives, to help develop methods for difficult portions of the assessment and to acquire needed field data not presently available. (Anyone who would like copies of this white paper, please contact either Tom Woods or Tony Knepp.)

We have heard a lot of talk about the scope, mission and objectives of the GW/VZ Project. DOE started this endeavor with Bechtel in December, with the Plan for the Plan being released in April. During that time frame,

there were many discussions on “what is this, how big is it, what does it have to do?” The purpose and objective of the Project was fuzzy during that time frame. It still suffers from that today. It is imperative that we nail down where this Project is going, otherwise any planning may or may not get you where you want to go. How much completed Project work are we going to have to change because we were running out in front of a clean definition of the objectives and scope of the Project?

We have heard a lot of talk about the conceptual model from a lot of different perspectives. This term means different things to different people. What are the tasks, what are the parts of this job and what needs to be done to proceed? What must be produced so the next task can be done. We need to lay out the conceptual model of the work and lay out the tasks and deliverables before we invest a lot of time in written work. The old Project Specification document suffered from an absence of this. When we have the mission laid down and have a good conceptual model, there will be things that we will need to backtrack and fix if we want to do the work right. It is probable that the Science and Technology (National Labs) initiatives will need to be adjusted.

It became clear to the people working on the CRCIA that the potentially affected people are going to have a great deal to say about how the assessment is done, because it affects them and their children the most. All of the tools this Project talks about; the Expert Panel, sub-panels, peer review groups reviewing the data, are all aimed at trying to solve a credibility issue so that everyone can say, “Yes, this is good work.” Will what has been planned do the job? Will it be “acceptable” to the potentially affected people? The only way that we feel it can be done is if the designer and the “doer” of the Hanford Cleanup are not the evaluator -- we must have an independent evaluator who will then inform DOE, the Tribes and the public of the estimated post-Cleanup effects, who will then determine if those effects are acceptable. We must figure out a way to have an independent assessment of the River. We have laid the groundwork for this, but still have a long way to go to solve Hanford’s credibility gap.

The CRCIA document was pulled together without the talent that we needed in specific technical areas. We are thinking that what is needed now is an update of the CRCIA Part II drawing on the technical skills in the technical areas that are needed.

Discussion - Anthony J. Knepp: How we approach the CRCIA requirements document and what we intend to do will be detailed in the Project Specification Document. This is the requirements of how we will run the job. It is not a plan. When we first read through the CRCIA requirements it was determined that most of them were at a pretty high level of detail. As we have reviewed them, they look good on the surface, but we have not yet delved down below that high level of detail. Most of what we have worked on to date is very credible, reasonable and reflects the way we want to run the job. To date, most of what we have done with the CRCIA document is clarification. Working with the CRCIA has been positive. We have defined differences so that they are clear to everyone. We hope that after another couple of meetings we will be able to wrap up the high-level parts. After we have achieved agreement on the high-level details we will begin working in more detail. We have included in the white paper everyone’s comments who has provided them. Once we get to a point that we have the best of where we can go we will once again open it up for review.

In writing the Project Specification we wanted to have a documents that anyone could read and understand what was expected of the Groundwater/Vadose Integration Project. As anyone familiar with Hanford will know, it is very difficult to integrate projects. We are working on a lot of things at the same time; the National Labs,

Mission, Vision, Objectives, etc. We hope that there will be very little backtracking because of good communication.

QUESTION: I would like to know how much effort was used in analyzing past work. We know that 90% of the off-site dose came from the N-Springs, are we looking at the impact of what happened in that area due to the water mound increasing? There was a great deal of data gathered, when the impacts were significant. How much of the past data has been explored -- how are you going to couple data and history?

ANSWER: The way the requirements are set-up we must understand what the contaminants have been in the past to understand what resides today. What happens in the future will add to what occurred in the past. Therefore, we must know and take advantage of prior work. CRCIA clearly calls for literature searches and maximum use of past and present work so that there isn't wasted effort. We will require that the analysis sort out these questions and provide answers.

COMMENT: The screening assessments are fuzzy and might give you false impressions of what might be there. We know what came as a companion to the long-lived radioisotopes, which now have tiny impacts. What will be the baseline screening data? It should go way back.

RESPONSE: Agreed. When you lay down the requirements you have to know the history. Those kind of issues will drive the requirements. Part of our mission is that we don't repeat what has happened in the past. The job is to calibrate and understand what happened. Clearly it will be a different analysis to move forward, based on the conditions you are seeing. Right now we are just starting, we are in the planning phase and it is difficult to understand which way to go, but we are aware and have general ideas of the initiatives at a high level.

COMMENT: Part of the assessment is that some contaminants are up river from Hanford.

RESPONSE: Yes, we are aware there are other sources of contaminants. We could have another workshop regarding the screening assessment for one of our future topics.

PROJECT SPECIFICATION:

As discussed previously, the Project Specification Document is a planning document that provides a high level of scope, mission and objectives for the Groundwater/Vadose Zone Integration Project. It lays out how we will do business. We are on schedule and the document will be provided to DOE on July 22, and available for public review around August 13. This is not a technical document. It is a high-level readable version of what we are trying to do, and the specifications of how we will do it. We have a number of appendices that we are incorporating that will be more technical in nature. It covers all the projects that are expected to be integrated into this job. It has been a complex process to pull out that which is relevant. The project is being organized in modules or technical elements (i.e., inventory, transport, impacts, etc.)

QUESTION: The Project Specification will identify the various pieces and projects of the Hanford site and integrate them. When we lay out the Detailed Work Plan will all those elements be captured into the DWP?

ANSWER: Yes. Part of this job is integration. There are thirty-three total projects that will be integrated, of which eleven are significant. The Project Specification summarizes what they are and what they do. Collecting that information is the beginning of the DWP, which is the backbone of the work that is done here.

QUESTION: Where does the authority lie with the other project?

ANSWER: To date, the site manager and the site management boards. The information is taken to them and the decisions are made at that level.

COMMENT: That is the driving logic that ties everything together. Interface logic must be developed that defines what the projects must produce. The Projects must understand what is expected.

Outline of the Project Specification

The Project Specification Document comprises eight chapters that discuss the following:

1. Introduction
2. Summarization of Requirements
3. Vision, Mission, Goals and Objectives
4. Current and Future Conditions of the Site
5. Summarization of Various Elements and Scope of the Project - Identified Nine Modules
- 6-8. Tying the Project Specification with the other Project Documents:
 - Project Management
 - Project Approach
 - Prioritization Logic and Integrated Baseline

Appendices

- A. Crosswalk that ties all documents into the Groundwater/Vadose Zone Integration Project Management Plan.
- B. Summarization of Laws and Requirements
- C. Summarization of Recommendations Received on the Project
- D. Summarization of Current Projects on the Hanford Site - Programmatic and Technical Details

QUESTION: Will there be a section that will provide an update on DOE's view of the CRCIA?

ANSWER: We have just decided that subject will comprise an Appendix E.

QUESTION: Have you received input on the hard parts - cultural values and economic impacts? How are you going to approach this?

ANSWER: That is one area we are still defining. Remember that the document is still in draft stage and we will incorporate that information as it is developed.

COMMENT: The longer you wait, the harder it will be.

QUESTION: When is day one? Is it the first day of the Hanford Site or is it the first day of 1980. The date that you use to begin your assessments is a crucial issue.

ANSWER: The Project perspective is the future. We must understand what has happened in the past, we need to know what is in the groundwater, vadose zone and river, but we are looking forward. The Project is here to make a better environment for the future.

COMMENT: If you don't understand how the readings got there and you don't understand where it came from you will have a serious problem.

RESPONSE: We have the old reports, however, there isn't the intent to recreate that data. There is a need to understand it, because it drives the project, but we are not going to recreate the past.

COMMENT: I want to see what the former mental muscle is.

COMMENT: There is a difference between how the impacts were assessed. The early focus was on people and places off the Hanford Site. The difference then, was that people were not allowed to live at Hanford. The future hope is that people will be allowed to live here, and that is a much more intimate circumstance. The early measurements were all down stream of the site, and now we are finally working towards the Hanford site itself.

COMMENT: A screening assessment part two is what we need to assess what is going to happen from now on.

COMMENT: If the foundation is microscopic then there is a lot of work that has been done in modeling in the Hanford Dose Reconstruction and we will want to be compatible.

MISSION:

Our breakout sessions at our last workshop were on the Project Mission. We have received a lot of input from people since that date and we would like to gain consensus from those attending today.

MISSION

- *The mission of the Groundwater/Vadose Zone Integration Project is to protect human health and the environment throughout the Hanford Site and to protect the Columbia River environment, river-dependent life, and users of river resources.*
- *The Project will integrate Hanford activities and actions. The Project will conduct cumulative assessments of the effects of Hanford-derived materials and contaminants on the Columbia River environment.*
- *The Project approach will be open and inclusive, to enhance public involvement and build credibility. The Project will utilize peer reviews and oversight to be technically defensible.*

OBJECTIVES

1. *Develop assessment methods for human health and ecological risk that support near- and long-term clean-up decisions. Evaluate sustainability of the river ecosystem, cultural quality of life, and socioeconomic impacts over the period of time that Hanford derived contaminants remain intrinsically hazardous.*
2. *Instill a sound technical basis for Hanford clean-up decisions through an infusion of applied science and technology.*
3. *Provide a platform for making sound and consistent management decisions throughout all of Hanford's programs.*

4. *Be open and responsive to input provided by regulators, stakeholders, the public, and the Tribal Nations.*

COMMENTS: First paragraph, the word protect puts it into a regulator project management framework. That is one of the first key places where it goes wrong, it sounds like the mission is to satisfy the regulatory framework instead of being neutral.

It supports protection, but it doesn't protect. Something is wrong with the verb and it needs to be changed.

Second bullet, the word integrate. This project is not going to integrate all activities on the Hanford site.

COMMENT: Change the word protect to provide information.

RESPONSE: DOE as a steward of the resources of the Columbia River must ensure protection of resources, we can change it to reflect that. DOE is required by law that this work will serve as Hanford's groundwater protection management, which protects the Columbia River and that which surrounds it. This project may not do all the remediation actions, but our role is to ensure protection and let management know if mistakes are being made by action or lack of action.

COMMENT: Assessing is what was described, not protection.

COMMENT: Then say what you are assessing and what you are protecting. It is not clear that you are going to do that.

RESPONSE: If you do action to mitigate, then this is protection. This project is more active than assessing, it is not just assessing. This project isn't just about good science, this project is to cut through activities of other projects that build our understanding of the impacts of Hanford and help us make sure that they are done in an integrated fashion. The projects will still own the compliance, TWRS will still be TWRS. The mission of this integrated project results in protection.

COMMENT: Then the mission is to provide information needed to ensure protection.

COMMENT: The third bullet, ensuring credibility of public involvement -- the meeting today was not attended by some people because of conflicts. Make sure that there aren't conflicts for these meetings. There is a conflict with the August 18, 1998 date with a Oregon meeting.

RESPONSE: There will always be conflicts. Please help us. If you know of conflicts, let us know. We will also make arrangements to have our meetings put on the Hanford Public Involvement calendar. But we have to move forward. There is competition for time, sometimes you are forced into moving ahead with certain times.

QUESTION: Under objectives, how can this project consider the non-Hanford contaminants from upstream and downstream?

ANSWER: DOE could participate with other agencies to address this.

COMMENT: It might be well to clarify that point.

RESPONSE: It is not our intent to determine what is happening with the mining industry and agriculture, that is a focal point for others to play.

COMMENTS: Objective #2, clean-up decisions through an infusion of science and technology. The project deals with more things than clean-up, it doesn't matter if it is clean-up or not. Remove the word clean-up.

COMMENT: This is a little fuzzy. It's sounds as though we never had science and technology before and implies that now we are going to infuse it into Hanford. That is selling all that has been done in the past short, we have invested in S&T in the past.

RESPONSE: This objective is a direction from Under Secretary Moniz to demonstrate and use an applied science technology. Infusion means to use. We recognize that this statement should say that this project is making sure that through an integrated technical basis sound decision will be made.

COMMENT: It is really important to design your work so that you take into consideration all of the prior information and acquire all the pertinent data you need to use.

You must decide on a technical approach and this is a choice that must be made up front.

RESPONSE: We are not in a position to say what we will defer. We will need to see how we address implementation. One person's deferral is another persons recommendation of what needs to be assessed. We are committed to an overall assessment of the impacts. There will be imperfections and some components will not be addressed with as much rigor as others. Each assessment will consider an overall assessment approach.

COMMENT: In Objective #1 take out the second sentence. It doesn't have anything to do with an objective approach.

COMMENT: Change evaluate to consider.

RESPONSE: There is some feeling that at Hanford we have dropped to simplistic engineering solutions without understanding the science.

We have four objectives on this project:

- To have the capability to do broad regional assessments
- To build, through applied science, underpinnings to make credible assessments
- The provide one place where there is a platform where all decisions are made to ensure that a project makes assessments based on sound science
- To be open and responsive to regulators, stakeholders, the public and the Tribal Nations.

COMMENT: A red flag on Objective #4 is the word input.

COMMENT: You should say where you are coordinated with other departments.

SCIENCE & TECHNOLOGY/CONCEPTUAL MODEL DEVELOPMENT

Project Approach: The approach that we are going to be taking on this project is what is called the “3-Bin Approach.” This project encompasses a complicated and broad scope which includes:

1. Developing a credible regional system assessment capability. This project is more involved than other Hanford Site activities. In doing an assessment you learn something about the system and where you need to do more work.
2. Capturing the existing ongoing Hanford Site project activities. There is work going on with the Project as we speak today. If you look at things on an overall site-wide basis, you might do things differently. This project will be in the middle of the change control process.
3. Launching new work and providing redirection of ongoing work through Project Planning and S&T Roadmapping. As this process evolves, we will rely first on sound engineering and technical judgement to determine the gaps, and our understanding of the site and what the projects are doing. This will provide the basis for new work.

If we were living in a perfect world, we would do these activities in a nice sequence, but it is necessary that we do things simultaneously.

This project will not be successful without the support and participation of the core Hanford Site projects, which are:

- TWRS Vadose Zone Characterization
- Hanford Tanks Initiative (HTI)
- Immobilized Low Activity Waste (ILAW)
- RCRA Assessments
- 200 Area Remedial Action Assessments
- Groundwater Remedial Actions
- Groundwater Monitoring
- Composite Modeling
- Vadose Zone Monitoring
- Environmental Monitoring (Columbia River)
- Solid Waste Performance Assessment

What we are asking of the projects is difficult because they already have their day-to-day responsibilities. Also, there are other issues we are looking at; such as how water is disposed of on-site, leaking water lines, as well as water lines that run through the tank farms.

QUESTION: On regulator involvement, from your perspective, how do you see it working out? Where do the regulators fit in? This is a DOE project with input from stakeholders and regulators, then you have initiatives with varying degrees of regulators involvement, responsibility and control. We are trying to get a feel for how you see the regulatory involvement playing out in this project. Especially if you are talking about launching new initiatives to ensure that they are meeting the compliant needs. What are the roles and responsibilities?

ANSWERS: When we get the big picture together, there will be a dialog on the regulatory framework and path forward.

This project was funded separately from the other Hanford Projects and their efforts for 1998 will continue as scheduled. The budget for the projects in FY 1998 totals \$31.7 Million is as follows:

<u>PROJECT</u>	<u>FY 1998</u>
● ER Groundwater Monitoring	\$11.7M
● ER Groundwater Remediation	\$7.2M
● Groundwater/Vadose Zone	\$3.3M
● TWRS Vadose Zone Characterization	\$4.0M
● Hanford Tank Initiative (HTI)	\$1.0M
● Immobilized Low Activity Waste (ILAW)	\$3.8M
● Solid Waste Performance Assessment	\$0.3M
● Environmental Monitoring (Columbia River)	<u>\$0.4M</u>
TOTAL	\$31.7M

Our early thinking is if you look at the technical elements of the project they probably are around technical new work launched. One of the technical elements is regulatory path forward. Once we put the picture together of what the projects are doing, what their regulatory drivers are, and where their gaps are, then we will need to have a dialog that will clarify the regulator involvement.

When DOE sent the initial letter to BHI directing ownership of this work, it was made clear that there needed to be provided early opportunity for the regulators, stakeholders, Tribes and public to have meaningful participation. Participation meaning that we would get together to find the issues so that we can help to meet the expectations and needs of the customers. When we get through the processes, clearly the we will see additional needs that will require change. That can't be done without the regulatory agencies. The infusion will have input from the regulatory agencies, as well as the tribe and stakeholders. Our hope is that we will work together as partners and the final outcome will be determined by the prioritization system.

With the regulator, Tribal Nations and stakeholder input and review, and the GW/VZ Project and Hanford Site projects management and participation, we see the sequential approach to identifying and filling gaps as follows:

- Review of ongoing projects
- Conceptual Model development
- National Labs review
- National Labs meetings (identify gaps and initiatives)
- Screen and prioritize
- Expert Panel review and recommendations
- Planning of project initiatives and Science and Technology Roadmaps
- Input and development of the DWP

COMMENT: There is a big assumption in the review of ongoing project to get gaps that there are generally accepted needs and requirements. You don't know what its mission is until it is defined. Until the needs and requirements are defined, it is pretty hard to tell if we have gaps.

RESPONSE: That's true, but we have to start someplace.

COMMENT: General knowledge is usually based on individual perception.

RESPONSE: We have the regulatory requirements. One of the challenges of integration is to influence the projects with regard to overall requirements. The people on the projects have already identified issues, where there is a lack of funding and other gaps within their project.

QUESTION: Do we have a Conceptual Model?

ANSWER: There are about five different spins on the Conceptual Model. One is in terms of the system you are looking at and how the contaminants move through the receptors. Another is of the vadose zone and what is under the tanks farms. It is an issue of scale and needs to be compatible, even though it isn't the same inventory for both. Therefore, there are different conceptual models we are looking at. The Conceptual Model is how everything will fit together. How we view that system and fill gaps will evolve with time. For the near-term we will rely on expert judgement and peer review.

For the task leads of the National Lab meetings, the CRCIA document has been provided as background reading and they are aware of its requirements.

QUESTION: The inter-relationship between the sub components of the Conceptual Design, for example transport models, toxicological issues, ecotoxin, human health; as I look through this screening and setting of priorities, I'm trying to get a feel as to how you are proposing to rate the significance between the sub components. Is it more important to invest more in ecotoxin data, vadose transport, groundwater characterization of transport; is that what you mean by screen and prioritize? Where is the timing and how does it come into play?

ANSWER: Yes. Right now we will learn something about gaps when we run the regional model, not when you plan for it. At the end of the day we will have to sort through our priorities, because it will come down to how much money we have. We will not have much impact on how the money is spent in FY99, that money is already pretty well set. We hope we can identify some key things that aren't being done, but what we are really about is the FY2000 budget. Our work between now and December is to set priorities.

COMMENT: I suggest that unless there are some actions taken in FY99 that this project will die because of lack of interest.

RESPONSE: Originally we thought that we would be able to pull from the projects well set-out plans, but now we recognize they are in an evolutionary process. We will look at what the projects have planned, and then we will make a difference in FY99. For example, with the releases from soil to groundwater out of the tanks there will be a systematic process with participation by the National Labs and Expert Panel. But there are very complex issues and they will require a long process, which must be formal and systematic. We hope that the "low hanging fruit" will be

identified and brought to the attention of the projects and regulators and that which is most important will be addressed.

COMMENT: If it is really going to be FY2000 before meaningful assessment, subjective assessment, much less results, then planning needs to estimate when there will be meaningful results, relative to milestones.

RESPONSE: We have to get the "big picture" together. When we talk about impact to the budget we mean significant changes. We will be doing things next year, but major blueprint changes will be down the road.

COMMENT: If it is worth doing, then you can't keep marching through major decision without reconciliation of those milestones.

RESPONSE: That is correct.

NATIONAL LABS:

We would like to talk today about the role of the National Labs in the Groundwater/Vadose Zone Integration Project. First, the contributions of the National Labs to the Project will be to establish an understanding of the current physical system, especially those physical, chemical and biological processes important to contaminant mobility within the Hanford vadose zone, groundwater and the Columbia River system. Second, to identify the work needed to explain or fill gaps in existing knowledge, either as work is being conducted by current programs or as areas where new work is needed. And, to support ongoing planning and implementation of detailed work plans for the Hanford GW/VZ Project.

QUESTION: Are you talking about fate and transport related issues?

ANSWER: The intent is to address risk, we will talk about that a little later in the presentation.

QUESTION: When you talk of knowledge gaps, knowledge of what, transport or toxicological gaps or both?

ANSWER: Gaps in all areas. The intent is to identify the gaps in the physical system, biological system, response to contaminants; gaps in methodology to gaps in cultural impacts. These knowledge gaps are being gleaned and will be conducted in a phased approach. We can all agree that there are gaps all the way throughout the system.

COMMENT: You need to make sure that you include fate and transport.

COMMENT: Regulatory drivers are only part of the basis or part of the perspective necessary to determine the gaps. Regulations assume certain acceptable levels. Gaps are relative to something and this project has not yet built the basis needed to assess gaps.

RESPONSE: There will be many technical experts and advisory panels who will give us some starting points, this is not an ending point.

QUESTION: Why are we using exclusively DOE National Labs when there is so much expertise in the world?

ANSWER: This is a first step, we may phase in other resources later. The last block titled "Involvement of Universities" is really reflective of the scientific community. We are putting together technical teams, led overall by PNNL. Shirley Rawson is in charge to bring this in and to ensure that we get the best in the different disciplines to contribute to the planning. We have aligned teams with programmatic elements and listed elements that we are approaching in this current time frame. There have been task leaders chosen for those areas. There is a Risk and Assessment team that will be beginning shortly.

QUESTION: Are you looking at the level of effort in these components? I see a lot of breakout in the fate and transport components, do you anticipate that this risk category, when it is expanded, will be broken out in additional, greater levels of risk or are these intended to have a balanced level of effort?

ANSWER: Currently, they are not constrained that way. Some areas have greater need than others.

COMMENT: System assessment category, how much will they dominate when it comes to the overall system design, is that in the system assessment box? How will we know the value added? Will there be an attempt to try to see how significant the end results are?

RESPONSE: We will evolve as we move forward. We are starting out with first steps. What can we draw on? What do we know? We are not yet at a stage where we can link them together.

COMMENT: Identify and expand the risk box and then there will be a method to evaluate the value or significance.

RESPONSE: There is a set of criteria that are value rated. This is where we put our resources, and that is the prioritization box.

QUESTION: What will give us better understanding of what is important?

ANSWER: We intend to do more at some point in time. We will have the ability to do some screening criteria. That criteria is being developed. You must first use the expertise and knowledge to define the first step of where to start.

It is an interactive process to get the answer you want to physically put your system together and run it. You won't gain understanding of what is important until you begin to see how the overall system responds. We need to have some leeway to build with what we know right now.

COMMENT: We need to make sure that things don't get set before we know what we need to know to set them. We must be careful not to burn the bridges.

COMMENT: When you makeup the teams, to restore credibility, each team would have to include a member of the CRCIA team, otherwise it looks too much like a private club.

RESPONSE: All of the National Lab Meetings are open for public participation. At the last meeting everyone was making contributions. The team leads are following on with those that met previously in their groups. There will be a few additions, but anyone can participate.

COMMENT: It sounds like the CRCIA team is out of the loop. The expectation is that the CRCIA team should be considered as members of these teams.

COMMENT: It is fundamental that your basic strategy depend upon scientific validity. My reaction to this is that this looks too much like a jobs program for the National Labs. We have a lot of good people that should be applied to these areas. Scientists have a tendency to want to study something to death.

RESPONSE: This applied science effort is directed at Hanford needs and solving problems.

COMMENT: We need to understand that if we don't have the right participation we are not going to get to step one without the involvement of CRCIA.

RESPONSE: CRCIA Part II is on the reading list for each of these technical groups.

COMMENT: What I am hearing is that until we have some kind of idea of what the risk downstream is, it will be difficult for science to zero in and spend time on what is needed in the assessment.

RESPONSE: This is not just an assessment. There are other decisions that need to be made, what sets the priorities will be multiple project drivers.

QUESTION: How much money is being spent in this effort in FY98 and FY99. Is there a set amount of money driving how much work is being done? It has been raised that there is a concern that this could be a feeding frenzy for the National Labs. How much is the bucket of money?

ANSWER: That was a concern at DOE Headquarters as well, and this is not a jobs program. This program reports to Dr. Moniz and he is watching very carefully what the labs do -- you have a strong monitoring of these dollars.

This program is needs driven. For FY99 we have not established a budget. We haven't yet established what we are going to try and accomplish next year. This year, the estimate is in the neighborhood of \$200,000 to the National Labs and \$300,000 to PNNL. Everything has been budgeted and that is how all of our work will be done.

QUESTION: Is all the funding coming from Hanford?

ANSWER: There was additional money allocated for this project from Headquarters. As stated before, none of the funds for the GW/VZ Project are coming out of Hanford. Some of the National Labs are participating at their own expense. We are only paying for a limited amount of participation.

The bottom line is that there is work that needs to be done that is long-term. We need to get going on this work and there will be part of an applied science program that will be launched in earnest in the year 2000, with maybe a little be done in FY99. This is a phased approach and FY99 concentrates on the areas with the most known issues. We will engage in technical exchanges with the projects to provide a fresh perspective for Hanford.

QUESTION: Are those exchanges intended to be involved and participated in by the stakeholders?

ANSWER: It is the Project's desire to have participation so that experts can understand the values and goals of the stakeholders. We want participation by our stakeholders. Not only do we want it, we need it.

QUESTION: Will you match the modules and their needs? As you get into toxicological drivers which would have an impact on the other modules, how do you capture that? Will there be cross-pollination, and if so, when will that happen?

ANSWER: A lot of the key issues arise between elements. Toxicological interface is important, those pieces happen at interfaces. At next week's National Lab Meeting we will have the teams formulate their own initiatives and then get together to develop them. In risk and toxicology areas, it would be a good idea to have a representative of that team in the room.

COMMENT: Haven't seen that in the past in the National Lab meetings. It is difficult to know when to bring the right people to engage ecology expertise in this project. I would like it if we had a better understanding of when we should have them attend.

RESPONSE: We will be happy to provide that information to you as requested.

The four steps of Roadmapping are:

- Data Gathering
- Issues Identification
- Science and Technology Gaps
- New Work

The National Lab meetings next week are S&T Gap Meetings

COMMENT: On the agenda there are overlapping meetings beginning at 1:00 p.m.

RESPONSE: That's correct.

QUESTION: Will there be a synopsis of the meeting?

ANSWER: Key highlights of the meetings are sent out to all attendees. We can send it to a larger distribution as well if there is an interest. Also, we will post the highlights on the web.

QUESTION: How are you going to manage all the information? Where is it going and how can people have access to these reports?

ANSWER: We will put together a data management control team. That is one issue that we have defined, the need to have a single source for the information. We are making a compilation of a list of available resources.

EXPERT PANEL CANDIDATE SELECTION UPDATE:

The purpose of the panel is to provide DOE with technical observations and recommendations regarding planning, execution, and interpretation of results from the GW/VZ Integration Project. Our charter is to perform

technical reviews of critical subject areas, focusing on the overall objective of cumulative assessment and remediation of the potential impact of Hanford waste inventories to protect the Columbia River.

The overall technical review process is multi-layered and consists of:

- Expert Panel
- National Laboratories
- Routine Peer Review of Products
- National Academy of Sciences
- Independent Project Validation

We began with a list of over 100 candidates for the Expert Panel. Those names, along with additional names that were provided by you, were given to the University of Washington and the University of Oregon for screening. There are a lot of names you are familiar with who offer a wide and diverse background. We are looking for people with a strong technical background and for vadose zone and hydrology experience. The universities provided a list of twelve names. The core panel will consist of 5-8 individuals from this list.

The criteria to arrive at the core panel is as follows:

- Education
- Relevant experience
- Peer recognition
- Contributions to the profession
- Problem solving abilities
- Current understanding of Hanford Groundwater/Vadose Zone issues
- Desire and ability to serve

QUESTION: This is the criteria used to get to the twelve?

ANSWER: Yes.

COMMENT: I don't see the relevance of the twelve with the criteria and how they arrived on the list.

RESPONSE: Remember that the selection was from an independent selection committee.

Where are we today? We have given an initial recommendation from DOE-RL to DOE-HQ. We have had some conversation with them, but we haven't yet been able to contact Dr. Moniz to finalize the selection of the panel. We hope to be able to reach him before we make the final selection.

There has been discussion about concerns with one or more people on the list. Those concerns have been communicated to Dr. Moniz and will be taken into account.

QUESTION: Who did DOE-RL recommend?

ANSWER: We would like to have the official announcement of that come from DOE-HQ.

The peer reviews will be on-going between Bechtel, DOE and the National Labs, as well as you the stakeholders.

The National Academy of Sciences will provide an independent review. Mary Harmon of DOE Headquarters is working on how to bring in the NAS and what their scope will be. We are hoping to have the first meeting with the NAS around the October time frame.

QUESTION: Why have both the Expert Panel and the NAS?

ANSWER: The NAS has a slow feedback process. Sometimes you don't receive a report for a year. We need to have a quick review process as well which is what our Expert Panel can provide. Also, the NAS will not be putting in the same level of detail as the Expert Panel.

When we were back at Headquarters on July 10, we met with the NAS and talked about our needs and how they might support this Project. One refreshing output was that taking an integrated look at Hanford is something that the NAS supports. Since the NAS is comprised of volunteers, the level of interest in this integration Project will provide us with a lot of support. The October meeting will review the project and its direction, as well as how we are organized and the type of work we feel needs to be done. We will receive immediate verbal feedback with a follow-up written response.

On top of all of this is the regulator process as well. One of the end products of this activity is to support decisions for clean-up. These are decisions made by the regulators and so we have another level of review.

DETAILED WORK PLAN PROCESS:

Mike Fox, Manager of Bechtel's Planning and Controls at Hanford, is here today to talk about how we do work here at Bechtel and how it will apply to this project.

Key to executing this project is to have the tools that allow you to know where you are going and how you are going to get there. Also, if you are not going to be able to get there, how can you mitigate the problems? The foundation for this is the Detailed Work Plan (DWP), which we have launched, and we are working on it through the summer months. In the DWP we look ahead three years. The rest of Environmental Restoration is based on the Long Range Plan. We are in the process of building a Long Range Plan of this project over the next few months. This Long Range Plan is then monitored closely to determine if we are staying on track. We will be going through all the Hanford projects and pulling out that which will be pulled into this Project. There are a lot of unknowns on this Project and there will be a lot of evolution as we go through this process, but we will set a baseline on some assumptions and a scope of work. As things change, we will make changes to the scope so that there aren't any surprises.

The Bechtel Hanford, Inc. 15 step process is mature and includes scope, cost estimate and associated schedule.

COMMENT: I see how this works for routine activities and assessments where you know what you are going to do, revise as necessary, and lock in place. But this Project is a whole new can of worms.

RESPONSE: We need to define the scope of the work the best as we know it. As we start down through the path we are going to find deviations and we will recognize and do mid-course corrections. It is critical that we have a handle on the funds in a controlled manner.

COMMENT: Once you are in agreement on what it is, then you can lock it in. I don't think that there is agreement on the scope yet. It needs more development.

RESPONSE: If something isn't done now, there won't be funds for next year allocated to this Project.

COMMENT: Most of us in this room understand that you can't live without them, and yes, you have to get going. What bothers us is we are hearing mid-course corrections, when in fact the very purpose of what we are doing is not yet settled. This gives us a feeling of great uneasiness that WBS and codes of accounts are going to get set, which are difficult to reverse after they are already in place.

RESPONSE: We are not doing that. For this first year we are doing what we call "soft issues." We have some codes of accounts for ER that can be applied, but most of it is too soon. Please trust us that we are not going to lock us in, but at the same time, we need a plan to monitor. As things happen, you can recognize that it is a deviation to a plan and change your course and move on.

What will happen with the scoping statements is you will see what you are doing in FY99 in a programmatic way. We recognize that this will be a difficult process and we will monitor it closely. It is not rigid. The Environmental Restoration get new discoveries all the time. You need to reshuffle and this system responds to all of this.

COMMENT: I don't see the fundamental building blocks.

COMMENT: To give everyone a perspective from the outside, as a regulator working with the ER program, this process has been the most effective, and the easiest to understand and work with on accountability. It can't do what you are talking about until some more work is done, but as far as our experience is concerned, the BHI program is the most effective we have seen.

COMMENT: On the Expert Panel -- one of the concerns we have is that the whole process was set in motion on a short time frame without allowing us to submit names and assist in the development of the criteria. We were not involved in the process of development. That is water under the bridge now, but we have a concern on the selection of the sub-panels. We would like to have DOE consider involving the stakeholders in the input into the process before it is a done deal. We want more input than throwing names onto the list. In the future, we would like more input into the committees and sub-panels used by the Project.

RESPONSE: We are going to keep trying to do a better job. Again, we will learn from the past and try to improve. As we launch, we will have more things in place, but we need to get the Expert Panel set to provide us with their ideas of how it proceed.

COMMENT: The process of pre-development may be out of necessity, but more lead time may give us an even better process for the sub-panels.

DRAFT TRIBAL GOVERNMENT AND PUBLIC CONSULTATION PLAN:

What is the Project trying to do to implement meaningful interaction? The intent is that we would get out a strawman for people to look at. The first thing that was passed out was an outline, which was a culmination of a lot of people's ideas.

The scope of the Consultation Plan is not locked in stone. It is a living document that will change as we receive input from you.

In the next few minutes we will provide an overview of the Consultation Plan and then we are proposing to have some breakout sessions that will target some specific questions. We are open to ideas for discussion during the

breakout sessions. Active participation is what we are looking for today. We hope to have effective dialog that will influence the decision making process. We need to define who our audience is, who we are trying to reach.

COMMENT: When you say audience -- There is a difference between an audience who receives information and a partner who helps develop information.

If you view things as public involvement then it is unsatisfactory. People want to understand how the work is being done and want to have opportunities to influence those decisions. What we are talking about is a partnership rather than an audience relationship.

COMMENT: It is very important that you are very clear on the difference between participation and who is the responsible decision makers at the end of the process

COMMENT: Make sure that it is structured for an opportunity for reasonable influence and participation.

RESPONSE: We will capture these comments and include them in the review process.

What are the goals and objectives of the plan? What does and doesn't it do? The objective of this plan is to enable effective and real time project participation and involvement by all interested parties.

COMMENT: Identify levels of participation relative to project management or project architecture. This gets back to where is the management structure visible in all of this?

COMMENT: The plan does not show the management structure of the project so that the points of participation can be made clear. It is going to be vague because one doesn't know where and when someone is going to be involved. If a public involvement plan doesn't have a management structure in it, then you are lost.

RESPONSE: Management of the assessment and management of the project are different. An effective dialog will influence the decisions that are being made. That is the way that you are influencing the management structure. Are you expecting more?

COMMENT: Get away from the we/them mentality. Everything in the word audience infers a we/them. If you describe your public involvement in those type of terms it will defeat you. What you really want is a we/we.

RESPONSE: There is a we/we part to this plan. There is also a we/them for those who have not been involved in this room. There is a more traditional piece to this Project. Those attending here are those who want to be close to the steering wheel, but there is another element, and we can't forget that they are there.

COMMENT: Make sure that those two facets come out in the objectives and goals.

COMMENT: Suggest that the levels of participation, from occasional briefing to hands-on involvement are reflected.

COMMENT: One key topic you need to address, and what the CRCIA had to wrestle with is a thing called acceptability. The problem of credibility needs to be resolved. If it is bad enough, then you

have an adverse reaction and major obstacles arise in proceeding with the cleanup. This is not a veiled threat but what needs to get done so that this Project is acceptable. You must address acceptability.

COMMENT: You need to develop a criteria on how you are going to handle this problem because I don't know of any project that will be acceptable to all parties.

COMMENT: Yes, but we want to avoid non-acceptability.

COMMENT: We must face the reality that there are no decisions made that are 100% acceptable.

RESPONSE: We need to get some criteria around credibility. What is credible?

COMMENT: Separate the assessment piece from the decision piece.

RESPONSE: The Project is not making those decisions, we are providing information. The decision making will still rest with the projects. We are going to manage characterization, modeling and core activities, we will not manage the projects. Let me stress again the projects will make their own decisions. We will provide a credible platform on which those decisions can and cannot be made.

COMMENT: We need to be sure that we understand what that platform is.

COMMENT: We need an objective measurement because a loud, vocal minority can change the outcome and we don't want that.

RESPONSE: There are opportunities for interaction and participation. There are brief descriptions in the plan on what they are and what they mean. Please remember that, because of the developing nature of the Project, the Consultation Plan is a living document and not intended to be written in stone and finished. This is not a closed book, this is Revision 0.

COMMENT: Greg deBruler asked me to mention that because of a conflict in schedule, he is not here today. He is disappointed with the lack of coordination in schedules. I don't know how to resolve that issue, but it may help to increase one-on-one interactions with people who have concerns and are fairly involved. This may be a way to avoid conflicts.

RESPONSE: How do we effectively involve someone?

COMMENT: That is a real issue for the public. I would assume that the CRCIA team communicates with their members and would be agreeable to making sure that other members of that team are being informed.

COMMENT: Given the level of effort and the fast track nature of this project, maybe there needs to be more involvement to get the coverage that is needed. Divide the effort to receive the coverage.

COMMENT: When you have a volunteer organization, by the fifth meeting you are down in numbers because of people who have day jobs. They are the only ones who can determine if their needs are being addressed.

RESPONSE: We are trying to do the right thing. In filling out the evaluation form, if there are things we aren't doing, write it down. It would also be helpful to know what we are doing right.

What I am hearing is we should identify the key stakeholders that should be involved in these meetings.

COMMENT: I'm more inclined to pursue the other avenue. Offer different levels of depth and involvement and let them pick their own as apposed to selecting it for someone.

COMMENT: One concern is that you aren't going to make everyone happy, but you can try. Tom Carpenter, Jerry Pollett, Greg deBruler -- they aren't happy and they have an accumulated affect. Our credibility hinges on how successfully we are interacting.

RESPONSE: Until funding to attend these meetings is resolved in a positive way, from that perspective I don't know what else we can do.

COMMENT: Ecology's perspective is a concept of identifying key stakeholder groups and special consultants and personally contact them to check dates. This approach is tried and true stuff.

QUESTION: How much success has there been in the past of trying to couple meetings next to the HAB meetings?

ANSWER: For this Project, it has been hit and miss and for others as well. Sometimes it works and sometimes it doesn't.

COMMENT: On the GW/VZ web location add on a calendar format that would list a schedule of dates. A two month look ahead would be helpful, including as much as possible the topics and agendas of the meetings.

RESPONSE: We know that we need to get these big meetings on the Hanford Calendar and we are in the process of being included on that. Any comments on how we can be more effective and improve the evaluation form would be helpful.

COMMENT: Has there been any thought to a statistical evaluation of the form in the Consultation Plan. This is recognized as foundation information in putting this together.

RESPONSE: How we are going to use the information has been discussed, but not necessarily as a statistical evaluation.

COMMENT: The number of responses doesn't need to be big, you only need a random response of the potential population.

COMMENT: You need to understand and decide what you are going to do with the results. If it is meaningful to the process, then by all means you need a viable input from the participants, otherwise it is a waste of your time.

COMMENT: I'm not sure if it would give you an accurate feel of the credibility increasing.

RESPONSE: We are wanting to be able to do that. This form is a starter or strawman.

COMMENT: It is meaningless unless it is statistically viable.

RESPONSE: We are interested to hear from the people who are spending a lot of their personal time on this project, their input in how we are doing, and where we can improve. What we will do is evaluate and correct the things we are doing wrong, if we are doing something right we want to keep on doing it. We would like some feedback from the people in this room.

COMMENT: There is merit in some kind of assessment of how we are feeling. However, in my experience, unless you have a truly well designed survey, trying to get numbers to interpret may be baseless.

Proposed Questions for Breakout Sessions:

COMMENT: We need a discussion about the word credibility (trust). Let's define some of these words.

RESPONSE: There is an obligation that the members of the general public are provided information and made aware of what is happening here at Hanford and the decisions that are being made.

COMMENT: That is part of it, but what I am struggling with is that we need to define some of the words that we are using, before we evaluate, let's make sure that we have some agreement. What do you mean by credibility and how much do you need to move forward.

COMMENT: If you were asking the general public what is the vadose zone or source term, they wouldn't know. In my opinion, the first two comments address dealing with the public on their level of understanding. The essence of reaching the public really has to be in inviting someone from the media to participate who can sift through the information and condense it into bite size pieces of information. Only through that kind of participation will you be able to reach the public on a continuing basis so that they remember those bite size pieces of information. That is typical of the reporting mechanism that is used.

COMMENT: Using the word credibility, if you look up that word in the dictionary it means to be believable. It is not related to how much information you share. Integrity is adhering to a strict set of values. Certainly public involvement will build into that. The key is whether what you are sharing is answering their questions in a high integrity fashion. Just because we are having open workshops doesn't necessarily build credibility.

RESPONSE: We have proposed regional workshops. We need to plan how we can make those effective.

COMMENT: Let's fill in the blank -- This project will have credibility if..... When the first iteration is done of the assessment, I will accept the results as credible if.....

QUESTION: What is the potential date for the first iteration of the assessment?

ANSWER: The intent of the DWP development is by the end of FY99 you would have a tool in place.

- COMMENT: CRCIA called for something to be available within a year and an improvement in two years, with a full blown assessment in three. You do the best you can to match the decisions going on the site with what you can produce. That forces the architecture.
- RESPONSE: If we can take a look at the term credibility -- we need to define it.
- COMMENT: There are several people who would give a different answer to credibility.
- COMMENT: If the final conclusion isn't the same, what would it take to make you change your mind. In the end you won't have 100% acceptance? What will it take to accept?
- COMMENT: Hanford Watch, Columbia River United, Hanford Waste Watch; you need to have buy-in from these groups or you won't have buy-in from the rest of the state.
- QUESTION: What is the difference between Northwest Communities and the general public?
- ANSWER: The regional workshops that we discussed earlier is the concept of Northwest Communities.
- QUESTION: What is the general public? The unaligned people not associated with the Hanford efforts but with an interest in the activities at Hanford?
- COMMENT: Eliminate elected and governmental officials and consultants.
- RESPONSE: One of the things we do with the Hanford contracts is that we have standards that we measure them against for their fee. We have something similar in the fee process, that is the stakeholder and others have acceptance of the process. How do we put a number against these thing, I don't know, but this puts us on the road in terms of driving the project.
- COMMENT: Decide that there will be a new standard set for credibility. Take time out and focus and ensure what this new standard of credibility is, and focus on that and slow down a little bit. Shoot for 90% credibility for this Project. Focus an entire workshop on credibility. Not what do you think of my plan, but how we will establish and gain credibility. That would be the beginning of fixing this issue.
- COMMENT: Maybe develop a credibility forum that meets periodically to address each aspect as it comes along. They may say, "we may have had it initially, but we may not now." They can then define specifically what isn't believed now.
- COMMENT: One thing that would fit in is an attempt to capture some lessons learned from past assessments. In particular, the Past Hanford Environmental Dosage considerations had a blue ribbon panel of scientists in charge controlling the assessment, why was that one so disbelieved by so much of the public?
- RESPONSE: Good point. If we understood the mechanisms it might tell us what the fatal flaws were that we don't want to repeat.
- COMMENT: Anytime that people suspect that there is "spin doctoring" going on you will zero out your credibility. Make it an ethic that he who "spin doctors" is gone. That would maintain

credibility. How do you measure? It is perception, because spinning is often done by someone other than the performer.

COMMENT: One thing that the public objects to is anything that appears arbitrary. Without backup data then it is going down the same old track and will lose credibility.

BREAKOUT SESSIONS:

We will breakout into four sessions and discuss the following:

- When the first iteration of the assessment is done, I will accept/believe the results if.....?
- What will it take to be objective in arriving at acceptance?

Group #1

I will accept the results of the assessment as credible if:

- Need to be a participant in setting the requirements.
- If it addresses all of the modules/elements to some degree.
- If it passes technical or scientific peer review.
- If there were a clearly documented process showing how the assessment is done.
 - Transparent process
 - Includes underlying assumptions which includes end states.
- If historically-involved key stakeholder groups are not expressing major concerns about the process used to do the assessment.
- If the Expert Panel said DOE was ready and had completed the necessary steps to initiate the assessment.
- If traditionally incredulous groups or “anti-nuke” groups were to arrive at “acceptance.”
- If we have holistic faith in the models, such that there is sufficient understanding of what went into running the model and how it functions, the design process.

Group #2

I will accept the results of the assessment as credible if:

1. Has peer groups acceptance.
2. Uses common language reporting so it can be easily understood.
3. Reference to technical bases which is easily accessible.
4. Has involvement of media representatives.
5. Identifies unknowns/uncertainties (no hidden information)
6. Measures communications/reporting
7. Demonstrates results/changes due to public participation.

Group #3

I will accept the results of the assessment as credible if:

- Represents general public related viewpoint
- An objective panel of recognized experts expresses consensus opinion of approval
- If I've been involved in the process, including: selection of experts, validation of data, analyses and conclusions.
- If DOE integrity is demonstrated through performance consistent with stated purposes, goals and objectives.
- I'd reviewed all possible flow paths, source terms, detection equipment (with specs and placement).
- Accepted by key diverse stakeholder involvement groups.
- The data and analyses are gathered by suitable means and have appropriate pedigree for purpose of characterization.

Group #4

I will accept the results as credible if, or I will be convinced the results are credible even if they disagree with my previous thoughts if:

1. Complete source term, nothing omitted for lack of data.
2. Thorough, independent (not associated with the Project) peer review of data, models and assumptions.
3. TPA milestones (or commitment) to the Project.
4. Assessment must be driven by analysis requirements that have been developed in partnership with groups most likely to be affected (e.g. irrigation district, Corp of Engineers, etc.).
5. Models/Code are validated as well and as quickly as possible.
 - Independent V&V of codes/models.
 - Model/Code is an accurate representation of reality.
6. Site decision/cleanup process is kept separate from the assessment process (cleanup decision makers are not the assessment managers).
7. Must be usable and used for actual decisions. Must be timely with respect to milestones /decisions. Timing fits with complex disposal authorization (RODs); regulators must use the results.
8. Who must agree with "credibility?"
 - Affected people
 - Regulators
 - Project Managers
 - Site Management
 - General Public
 - Congress, State, local governments, etc.
9. Uncertainty must be known, addressed, planned for.
 - How much uncertainty is tolerable - to what decision?
 - Balance between stochastic and determ. agreeable).
10. Enabling assumptions are open and agreeable.
11. I had time to "review" products as they were being developed, not just afterwards.
12. Reasons for past non-credibility are:
 - Identified, discussed, fixed/addressed/resolved - root cause for credibility deficit known. (e.g. HEDR)
13. Contradictions, data disagreements, outliers have clear rules up front for being included or rejected.
 - Rules for inclusion, exclusion set up-front.
 - Rules for protecting contrary views (and people) or uncomfortable data/views
 - Project ethicist - someone who tracks "values," an advocate for silent voices, is vigilant against "spin doctoring", etc.

14. Set new standard for credibility and institutionalize it.
- With performance expectation (e.g. 90% on a credibility index).
 - Track it continually.

WRAP-UP:

Thanks for the input we had today. We learn a lot at each of these sessions and this Project wouldn't be the same without these workshops.

ACTION ITEMS:

- Include the CRCIA White Paper in the Meeting Minutes
- Post the meeting highlights from the National Lab Meetings on the web.
- Clean-up the mission and vision statement to reflect comments from today's meeting
- Get key dates on the Hanford Calendar
- Create a link with the GW/VZ web site and the CRCIA Home Page
- Create a link with the Hanford Home Page to the GW/VZ web site
- Provide a two-month look ahead for opportunities to participate on the GW/VZ web site
- Finalize date for the next workshop and the topic (suggestions are conceptual model and credibility)
- Define what will be done with the results from the survey; develop a statistical approach for survey instruments
- Get the media involved in the Consultation Plan and regional workshops - communicate with bite-size pieces
- Define the affected populations (i.e., irrigation districts, Fish and Wildlife, etc.)
- Increase efforts to contact those who haven't been able to participate with one-on-one contacts

NOTES:

- **Telephone conference call in numbers:**

Long Distance: 1-800-664-0771

Local: 376-7411

- **Web Site Locations:**

Bechtel Environmental Restoration Project:

<http://www.bhi-erc.com>

Groundwater/Vadose Zone Project:

<http://www.bhi-erc.com/vadose>

Hanford Home Page:

<http://www.hanford.gov>

Hanford Public Involvement Calendar:

<http://www.hanford.gov/whc/cal/cal.html>

CRCIA Home Page:

<http://www.hanford.gov/crcia/crcia.htm>

ATTENDEES:

Steve Alexander, Ecology
Stephanie Alt, DOE-RL
Martin Bensky, HAB
Joe Caggiano, General Public
Doug Chapin, DOE-RL
Don Clark, JAI Corp.
Suzanne Clark, DOE-RL
Pam Doctor, PNNL
Tim Ewers, UW-CRESP
Bryan Foley, DOE-RL
Bruce Ford, BHI
Owen Goodman, BHI
Michael Graham, BHI
Mary Harmon, DOE-HQ
Barbara Harper, YIN
Harold Heacock, Tridec
Doug Hildebrand, DOE-RL
Dave Holland, Ecology
Rich Holten, DOE-RL
Charley Kincaid, PNNL
Ruth Ann Kirk, AWU, Inc.
Sue Kuntz, BHI
Phil Long, PNNL
Jay McConnaughey, WDFW
Peter Michaels, KEPR
Don Mock, WMNW
Nancy Myers, BHI
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Tom Page, PNNL
Vince Panesko, Pacific Rim Enterprise Center
Douglas Palenshus, Ecology
Tom Post, EPA
Randy Price, In Situ Technologies, Inc.
Shirley Rawson, PNNL
Wade Riggsbee, YIN
Rex Robinson, Framatome
Gordon Rogers HAB
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