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Nez Perce

ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT
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February 18, 1997

Mr. John Wagoner
Hanford Site Manager
U.S. DOE, Mail Stop A7-50
Richland Operations Office
P.O. Box 550
Richland, Washington 99352



RE: Groundwater Monitoring Strategy

Dear Mr. Wagoner:

The Nez Perce Tribe Department of Environmental Restoration and Waste Management (ERWM) has been actively participating in the development of a groundwater monitoring strategy for the Hanford Site. A meeting was held by the on January 30, 1997, of the "core team" in which it was determined that the role of Tribes and HAB are to be "active listeners". Tribal staff and HAB representatives are excluded from the "core team" and hence the aforementioned meeting. The Nez Perce ERWM is asking for a clarification of the role of the Tribes. We believe that our role should be participatory in this planning process as outlined in the Cooperative Agreement between the Nez Perce Tribe and the U.S. Department of Energy.

We believe that the determination of the groundwater monitoring strategy is becoming increasingly unyielding and bureaucratic as demonstrated by the attached "DECISION/DATA USE MATRIX". ERWM believes that we all share the common goals of protecting human health and the environment, but as the strategy is progressing these goals are becoming increasingly obfuscated. At times, the need for more characterization may arise, and the groundwater monitoring strategy must move forward with the premise that the full extent of groundwater contamination on the Hanford Site may not be adequately known.

Two fundamental problems, which will hinder acceptance of the ultimate groundwater monitoring strategy, are:

- 1) The apparent exclusion of tribal participation and stakeholder groups such as the HAB
- 2) The participation of PNNL. The present course is flawed in that PNNL is determining its future work scope.

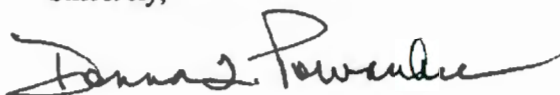
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In defining its own work scope, PNNL faces a potential conflict of interest. For example, the presently defined criteria for groundwater monitoring includes collecting data for groundwater modeling. Groundwater modeling is a separate scope of work that PNNL is pursuing. PNNL should not be defining its own work scope.

In the past, PNNL's Hanford Site Ground-Water Monitoring documents have been laced with errors which down play the extent of the groundwater contamination at the Hanford Site. For example, please refer to our comments (dated May 2, 1996) on **Hanford Site Ground-Water Monitoring for 1994, PNL-10698, UC-402, 403**. PNNL has never responded to these comments.

If you wish to discuss Nez Perce ERWM's comments further please contact Dr. Stan Sobczyk at (208) 843-7375.

Sincerely,



Donna L. Powaukee
ERWM Manager

Attachment

cc: K. Mike Thompson, DOE-RL
Kevin Clarke, DOE-RL, Indian Programs Manager
Steve Alexander, Ecology, Perimeter Areas Section Manager
Douglas Sherwood, EPA, Hanford Project Manager
Russell Jim, YIN, ER/WM Manager
J.R. Wilkinson, CITUR, SSRI Manager
Ms. Marilyn Reeves, Hanford Advisory Board, Chairman

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DATE: February 11, 1996
 FROM: Dan Michael (Neptune and Company, Inc.) and Evan Dresel (PNNL)
 TO: Ground Water Team
 SUBJ: January 30, 1997 GW Integrated Monitoring Meeting Notes

Notes from the integrated ground water core team meeting held on Jan. 30, 1997 are presented.

The purpose of this meeting was to:

- <. report on action items and discuss old business
- <. discuss ground rules for conducting the core team meetings
- <. discuss the way in which decisions will be reached
- <. obtain input and corrections to the draft decision/data use matrix and incorporate new input based on a review of the decisions developed at the previous meeting
- <. discuss possible alternatives for regionalizing our discussions
- <. present and discuss possible qualitative and quantitative design approaches
- <. establish a path forward, including selection of the first area(s) for a pilot of the DQO approach

Old Business

- <. Evan Dresel reported on DOE Order requirements related to leak detection around tanks. This Order calls for vadose or GW monitoring around SSTs and DSTs. Specific application of this requirement will be dealt with when we develop DQOs for the 200 area monitoring.
- <. Marv Furmen briefed the HAB ER Committee on the 1st two meetings of the integrated ground water team at their request. He will continue to brief this group and bring back any issues or concerns. In addition, Marv will brief the budget committee on our activities.

Ground Rules

- <. All meeting agendas and meeting notes will continue to be sent to the full ground water team, including Tribes and HAB contacts.
- <. The core team will identify decision points that should be brought to the attention of HAB and Tribal representatives. Ralph Patt will be used as the HAB point of contact.
- <. Decisions will be made by consensus or some negotiated agreement of the Tri-Parties to include State Departments of Health and Ecology, EPA and DOE. RCRA and CERCLA OU managers will continue to have ultimate control of decision making. The integrated ground water team will act as advisors and ensure cross communication. Appropriate decision makers representing specific OUs or RCRA units will be brought in as sub-team members during DQO facilitation sessions to the maximum extent possible. All parties agree that some decisions will require the core team to go up their management chain, and that some issues will not lead to consensus.
- <. The Tribes and HAB will be encouraged to continue participation as active listeners. At the present time no formal actions will be taken to increase involvement other than continued dissemination of information.

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- (. Public comment will occur at the time that changes are proposed to the Tri-Party Agreement such as changes to reporting requirements that are expected to emerge from this process.
- (. All parties agree to certain rules of conduct including: being on time, allowing members of the core and sub teams to call for breaks to discuss certain issues, participating with "civility", remaining open and honest with no hidden agendas. In addition, the parties agree to avoiding caucusing leading to confrontation.
- (. All parties will keep the big picture goal in front of them, and all meetings will have a well stated specific goal that is connected with this larger picture.

Decision/ Data Use Matrix

The team discussed the draft matrix, determined which cells should be checked, added two decisions, removed two decisions and acknowledged that statistical tests should be changed to comparisons to account for uses of data that do not involve formal statistical tests. The general issue that these decisions could be linked not only to ground water, but also to vadose monitoring was brought up, leading to a discussion of how the core teams wants to address vadose issues.

Two options included:

1. communicating data needs from vadose to those with the budgets and purview for design and implementation of vadose monitoring and characterization
2. fully integrating vadose personnel into the DQO development for the identified decisions and collaboratively developing a design for vadose data collection

The core team decided on the following course of action:

- (. Identify those subregions where vadose and GW tradeoffs are logical, and develop DQOs for vadose working with TWRS and Waste Management in those areas. The network to support decision making and decision rules will use data from both vadose and GW.
- (. For all other areas, communicate general data needs (to drive models and complement GW monitoring). Allow/require DQOs and SAPs for vadose data collection to be lead by TWRS and Waste Management with the GW core team knowledge and participation.

The revised matrix is attached.

Design Approaches

Dick Gilbert provided the team with an introduction to the overall design approach and a variety of design tools and approaches that are under evaluation for their potential use in network design.

He indicated that the approach should encourage input from all Stakeholders and Tribes, incorporate expert technical and historical knowledge, be technically defensible (and potentially peer reviewed), and result in a network that provides data of sufficient quality and quantity for all decisions identified. In addition, the approach should be consistent with the results of quantitative network design tools, be simple and flexible, and allow for changes over time. The specific approaches discussed included:

- (. 100 N qualitative approach
- (. LLNL/SNL semi-quantitative approach
- (. MEMO Plume modeling approach
- (. IEM Multi-objectives quantitative approach, and
- (. hybrid DQO/DQA/quantitative approach.

For each approach, the basic elements were described. The degree to which the approach is consistent with development of DQOs was also discussed.

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One possible sequential network design approach that would utilize these tools and facilitate various types of quantitative analyses, was described by Dan for consideration by the team. This approach would start by determining the number and location of wells needed to support localized source monitoring (e.g., RCRA), add wells associated with the CERCLA related decisions (e.g., performance monitoring), and then build in more wells to address site-wide or known plume decisions. The idea is to build a network starting from the most prescriptive, required set of wells, and at each step, evaluate the additional wells needed to provide data sufficient to support the relevant decisions at the next largest scale. Each sequential step would evaluate the degree to which the previous step provided wells that would be adequate to address the next level.

Path Forward

- < The core team decided to focus DQO development initially on the HR3 OU Area which includes the 100 D and H areas and areas in-between.
- < The next meetings will be Feb. 19 and 20, 8:00 - 12:00 at the Ecology Building.

Action Items

- < Develop an agenda for Feb. 19-20 and meeting notes. (Dan Michael)
- < Determine who from the selected HR3 area needs to be involved in the DQO Sub-Team from Ecology, EPA and DOE. (Core Team)
- < Continue to review available design tools, determine pros and cons and develop a proposed approach to monitoring design. (Dick Gilbert)
- < Prepare summary of the HR3 problem and existing program.
- < The next meeting, to begin DQO development for the HR3 area, will be held on Feb. 19 and 20th, 8:00 - 12:00 at the Ecology building.

Attendees

January 30 1996 Meeting Participants (CORE TEAM)

NAME	ORG	PHONE	FAX	EMAIL
Blane Furman	DOE-RI-AME	609-373-6796	784-4300	Blane_Furman@DOE-RI.gov
Doug Hildebrand	DOE-RI-AME	609-373-6796	784-4300	Doug_Hildebrand@DOE-RI.gov
Fred Mann	TWRS	509-376-5728		
Evan Dreisel	PNNL	509-768-3444	509-768-1704	evan.dreisel@pnl.gov
Robert Luttrell	PNNL	509-768-3444	509-768-1704	robert.luttrell@pnl.gov
Dan Lepa	Ecology	609-768-3444	784-4300	
Tim Gosselink	Ecology	609-768-3444	784-4300	
William Thamelson	WDCOH	609-768-3444	784-4300	
Dennis Frank	EPA	509-768-3444	784-4300	
Larry Gadbois	EPA	509-376-9884		Laurence.E.Gadbois@ccmail.pnl.gov
Daniel Michael	Neptune & Co	505-862-0707 x13	862-0500	danm@genesis.lanl.gov
Dick Gilbert	PNNL	202-846-5030	646-5233	ro_gilbert@pnl.gov

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Attachment

Decision/ Data Use Matrix (Excel Spreadsheet)

DECISION/DATA USE MATRIX

	HOW DATA WILL BE USED						
	Comparisons				Estimation		
	Up-down gradient concentration comparisons (interwell)	Concentration changes over time (within well)	Compare concentrations within a well to regulatory or risk-based action levels	Compare site concentrations to background (local or site-wide)	Map the spatial extent of plume contours at various concentrations of interest	Provide inputs to one or more fate and transport models to predict what will happen to plumes under various scenarios and estimate loading rates to the Col R. over time	Map spatial distribution of aquifer, hydrolic and geophysical parameters
SPECIFIC DECISIONS							
1. Whether remedial action (beyond those already identified), including actions involving source term control or removal, or control of the driving force (e.g., water table), is needed to achieve [region-specific future use] [cleanup] goals.	X	X	X	X	X	X	X
2. Determine what remedial action to select from among alternative actions.					X	X	X
3. Whether to change current prioritization and sequence of remedial actions included in the TPA.		X	X		X		
4. Whether remedial actions are achieving their performance goals.		X	X	X	X		X
5. Whether, and if so how, to restrict GW use in a given location.		X	X		X	X	X
6. Whether, and if so how, to change waste management practices including whether to continue to operate or revise operations for permitted waste disposal facilities or other non-permitted operations.	X	X	X			X	X
7. Whether to notify regulators or DOE HQ due to exceedances of some predetermined or regulatory trigger or identification of new contamination.		X	X	X			
8. Whether to advise the public and/or recommend shutting down a drinking water supply well.		X	X				
9. Whether a given well must be decommissioned							
10. Whether to close (delet) a facility that has undergone remediation.	X	X	X		X		
11. Whether a model is performing adequately to support PAs (verified) or requires modification.	X	X	?		X	X	X
12. Whether an area needs to be further evaluated (e.g., assessment or characterization)	X	X			X	X	X
CENTRAL QUESTIONS							
Whether any facility (e.g., TSD, geographical grouping of TSDs, or other type of facility) is adversely impacting GW resources	X						
Whether Hanford is in compliance with the agreed upon interpretation of regulations (e.g., RCRA, CERCLA, discharge permits)	X	X	X				
What risk is posed to human health and the environment			X			X	
Whether to change the monitoring design	X	X	X		X	X	X