MEETING MINUTES

AUGUST 30 AND 31, 2000

INDIAN HEAD PARTNERING TEAM MEETING

NSWC INDIAN HEAD, MARYLAND

The Partnering Team meeting was held on August 30 and 31, 2000 at the NSWC Indian Head, Maryland.

The following personnel attended the meeting on August 30, 2000:

Anne Estabrook – CH2M HILL
Tony Tomlin – CH2M HILL
Curtis DeTore – Maryland Department of the Environment
Heidi McArthur – NSWC Indian Head
Shawn Jorgensen – NSWC Indian Head
Rob Sadorra - EFACHES
George Latulippe – Tetra Tech NUS
Dennis Orenshaw – US Environmental Protection Agency, Region III
Janet Eastman – Management Edge
Steve Hirsh – USEPA/Tier II link

The following personnel attended the meeting on August 31, 2000:

Anne Estabrook – CH2M HILL
Tony Tomlin – CH2M HILL
Curtis DeTore – Maryland Department of the Environment
Shawn Jorgensen – NSWC Indian Head
Heidi McArthur – NSWC Indian Head
Rob Sadorra - EFACHES
George Latulippe – Tetra Tech NUS
Janet Eastman – Management Edge
Dennis Orenshaw – US Environmental Protection Agency, Region III
Steve Hirsh – USEPA/Tier II link
Kelly Ackiewicz – EFACHES
Kent Cubbage – Tetra Tech NUS
Chris Guy – US Fish and Wildlife Service (BTAG)
Simeon Hahn – NOAA (BTAG)
Greg Tracey – SAIC
Jason Speicher – NAVFAC
David Barclift – NAVFAC
Dean Neptune - Neptune and Company (conference call)

Wednesday, August 30, 2000

- **Introductions**

  Familiarizing group, catching up: NSWC Indian Head (host), Curtis DeTore, Anne Estabrook (scribe), Rob Sadorra, Tony Tomlin (minutes), Shawn Jorgensen (chair), Dennis Orenshaw (member facilitator), Heidi McArthur (timekeeper), George Latulippe, Janet Eastman, and Steve Hirsh (Tier 2 Link).

- **Review today's agenda**

  Began meeting at 10 AM.

- **Review previous meeting's minutes**

  No comments on July 25, 2000 meeting minutes. Minutes were accepted by Team.

- **Anne Estabrook - Sites 11, 13, 17, 21, 25 Fieldwork Update**

  It was noted that the field investigations at Sites 11 and 21 were completed except for groundwater sampling.

  The main purpose of the discussion was to make decisions on further well installation and/or sampling at the other sites (Sites 13, 17 and 25). It was noted in the work plan for the sites that decisions would need to be made on whether to go ahead with Phase II sampling.

  Site 13: Anne discussed the laboratory data from Site 13 samples. All data is unvalidated. Anne noted that the screening she was presenting was based on human health risks. Further study will be done to assess ecological risks. In surface soil samples, low VOC concentrations were found. SVOCs did not exceed residential RBCs in surface soil samples. SVOCs exceeded soil screening levels in the surface soil, which shows there may be a potential for leaching into groundwater. However in locations where to SSLs were exceeded in surface soil samples, the subsurface samples collected at the same locations showed negligible or no SVOCs. Arsenic was found in surface soil samples above the RBCs, but even sitewide background levels for arsenic exceed RBCs. TPH (DRO/GRO) were over the Maryland state action levels in two locations. It was noted that some metals data has not been received from the laboratory.

  Anne proposed that the two monitoring wells and one background well not be installed. Based on the data, the wells are not warranted. Team discussed the need for wells. There was a concern that forthcoming metals data may show exceedances.

ACTION ITEM: Shawn will check surface water drainage patterns through Site 13 (9/8).

CONSENSUS AGREEMENT: Based on available data (through August 28, 2000), Team decided that wells are not necessary at Site 13 for the following reasons:

1. SVOCs exceeding SSLs in surface soil samples were not detected in corresponding subsurface soil samples.
2. GW is greater than 30-ft deep and soils are relatively impermeable.
3. Site topography would cause surface water to runoff rather than infiltrate.

4. VOCs and SVOCs did not exceed residential RBCs at any location.

Site 17: Anne discussed background of the site. It was noted that the data discussed was unvalidated. Only a partial data set is in, because laboratory is two weeks late. The laboratory had not sent any metals data, but all the SVOC and VOC data have been received. No SVOCs exceed residential RBCs. TCE was found in the subsurface soil and was found to be below the residential RBC but higher than the SSL. Since TCE is levels are above the SSL, and groundwater levels are shallow at the site, it is probable that TCE is in groundwater. Sampling data for the surface water samples have not been received, so it can not be determined if TCE is moving from groundwater into the creek.

Anne asked the Team to determine whether there was enough data to agree that wells are needed. It was noted that there is not enough to data to say wells are not needed. Cost of shallow soil sampling was compared with placing shallow groundwater wells. Since most of the cost is in mobilization, it would probably be cheaper to go ahead and construct wells instead of having a number soil sampling mobilizations. The feasibility of getting a drill rig into the contaminated area and the construction of very shallow wells (groundwater within 4-ft of ground surface) was discussed. Both drill rig access and shallow well construction were considered feasible.

It was noted that no surface soil samples were taken directly upgradient (to the north) of the drum area. Additional surface and subsurface soil samples are needed upgradient of the drum area to determine whether the drum area is the source of the TCE contamination.

The timetable for installing wells was discussed. Wells could be installed based on the data in hand, thus well installation could occur within the next two weeks. Waiting on the data could mean that wells would not be installed until after the next partnering meeting. A third idea was to have Anne send out sampling data and have the team decide during a conference call instead of waiting until the next partnering meeting.

ACTION ITEM: Heidi will check on history of chemical incinerator adjacent to Site 17 (9/8).

CONSENSUS AGREEMENT: Based on available data (through August 28, 2000), a groundwater investigation is justified at Site 17. Additional surface and subsurface soil sampling is also warranted. The scope of the groundwater evaluation will be proposed and distributed by CH2M HILL once additional data is received and disseminated electronically to the team for concurrence.

Site 25: The laboratory has supplied all data except for background soil data (at locations SS18 and SS19). The discussion focused on the surface soil data. No residential RBCs were exceeded for VOCs and SVOCs. SSLs were exceeded for SVOCs. Arsenic was above the station background and residential RBCs. Nitroglycerin was non-detect for all samples. A number of metals exceeded SSLs (silver, cadmium, manganese). Anne noted that the evaluation is based on human health risks; additional evaluation will be completed for ecological risks.

The data is similar to the data from Site 13, however subsurface samples were not taken. At Site 25, the question of collecting subsurface soil sampling was to be based one the surface soil data. Based on the minimal problems discovered in the surface soil, subsurface samples are not warranted.

Anne asked for the team to decide on whether the installation of monitoring wells was warranted based on the available data. The team thought that the installation of monitoring wells would be warranted. Due to time constraints, it was decided to finish discussing the issue in the afternoon session. Locating where to place wells at Site 25 was added to the "parking lot."

- **Lunch break at 12:10.**
- **Steve Hirsh – Tier II Update.**

  Steve went over the following items:

  1. A Tier II partnering meeting has been scheduled for January 17 and 18th, 2001.
  2. Partnering training will be held on October 19 and 20th, 2000.
  3. Discussed graduation to a self-facilitated group. Steve believes there should not be any problems.
  4. Reminded members that there is a conflict resolution process.
  5. Next quarterly report submission is due the 1st week of October.
  6. FFAs need to be completed on time. They are a priority.

- **George and Anne - Workload Tool**

  Discussed the purpose of the tool. The purpose is to set up a schedule to show team members' time and commitment is needed to review deliverables and sets goals in relation to the two-year plan. It is understood that changes may be required in the schedule, but the tool was devised to minimize conflicts that may in themselves cause changes to the schedule. The workload tool is set up to provide members a timeframe for when deliverables will be submitted. Individual team member activities peripheral to the deliverables will not be included in the tool.

  It was noted that a milestone of holding a public meeting needs to be added after the milestone of completing the final proposed plan. There was discussion about whether a public meeting should be put in the tool. The public meeting was considered a peripheral item, so it will not be added to the tool.

  Team discussed the formatting of the tool. The Gantt chart was proposed because it would provide a timeline and chronological order of what deliverables are upcoming and how they overlap. It was noted that setting up the Gantt chart would be cumbersome, plus the current format provides a chronological order of deliverables.

  Team discussed adding a column on when review comments are due. The column will be left blank until the deliverable is actually delivered. The review comments due date should not be based on the planned submission date.

ACTION ITEM: Anne and George will revise the workload tool based on group comments (9/26).

- **Janet - Partnering**

Janet discussed the rules of brainstorming. The main rules were:

- no discussion and evaluation of ideas,
- capture everyone's ideas,
- silence is okay, and
- define scope for brainstorming.

Hand-outs on "nominal group techniques" and "option comparison grid" were provided. Team performed an exercise on the option comparison grid.

- **Anne – Site 25 Discussion Continued**

The conversation should revolve around these questions: Is a subsurface soil evaluation necessary? What is the scope of the groundwater evaluation? What is the process to move forward with this site?

Team discussed the necessity of a subsurface soil evaluation. It could be assumed that since the surface soil data did not exceed RBCs therefore the subsurface soil will not exceed the RBCs. That assumption may not be true for VOCs because the substances will dissipate from the surface soil. However the contamination source was probably on the surface, so VOCs and SVOCs probably would not have migrated downward. Subsurface data will allow the team to define the extent of contamination in soil, provide data for risk assessment, assess migration, and determine the necessity of evaluating the groundwater.

Concurrent subsurface and groundwater sampling was discussed. Concurrent sampling will mean a cost savings. The locations of wells are limited by terrain, so phasing the sampling to determine the well locations may not be useful.

The location and number of monitoring wells was discussed. There was a concern that the groundwater flow pattern is not known and can not be easily assumed due to the variability of site topography. The southern end of the site was considered the most likely area where contamination will migrate. The northern portion of the site is the least likely place to find contamination because dumping of chemicals would probably not have happened on that side of the building. Two wells were proposed to be located on the south side of the site. It was proposed to add a well near the building to monitor the probable source area.

ACTION ITEM: Anne will evaluate Sites 17 and 25 and develop proposals for Phase II soil and groundwater evaluation. Anne will distribute the proposals to the team and set up a conference call to discuss the proposals (9/8).

CONSENSUS AGREEMENT: Based on available data (through August 28, 2000) further evaluation of groundwater and subsurface soil is justified at Site 25. CH2M HILL will prepare a proposal and distribute to the team for discussion and concurrence.

ACTION ITEM: Heidi and Shawn will check Building 588 for historical explosives use (9/8).

- **Anne Estabrook – Lab Area Work Plan**

The goal was to discuss comments on the draft Work Plan and to agree on how to move forward with the draft final work plan.

Smoke testing was the first topic of discussion. Smoke testing had been dropped from the scope. Based on conflicting historical data and data gaps noted in the comments Shawn and Heidi recommend that smoke testing be reincorporated into the scope. Smoke testing will also help to determine pipes that have been capped or are blocked. Smoke testing may not identify pipes of concern, such as completely abandoned pipes that could contain contamination. Intrusive investigation techniques, such as excavation, are not a better option due to the density of other utilities in the area.

Time ran out before the discussion was concluded, so the smoke test issue and further discussion of the lab area WP were placed on the parking lot.

- **George – Site 57 Feasibility Study Investigation Work Plan**

  George discussed the monitoring well locations initially. Wells were discussed based on relative locations designated as "A", "B", "C", etc. George provided a hand-out showing the latest version of the monitoring well scheme. Upgradient wells ("A" wells) were moved to the west side of the building to provide more east-west definition of the groundwater flow pattern. Wells ("B" wells) were placed near the ethyl ether tanks to define the extent of contamination from the area of the tanks and possibly determine the contamination source. Wells at "C" were added to see if contamination migrates east in that area. Wells at "D" are being placed in an area where the valley is relatively narrow and free of utilities which would be likely location for a reactive treatment wall. These wells also will provide geotechnical data for the area where the wall may go. The wells at "E" are located to help define east-west groundwater flow patterns.

  Questions were taken after the new scheme was discussed. The first question was whether all the wells needed to be permanent. There was a concern that there are already a number of wells in the area. Wells needed to monitor groundwater downstream of the proposed wall should be permanent, since they will be monitored in the future. Where samples will only be collected once, a hydropunch may be used.

  The need for wells at "D" was questioned. The geotechnical data could be collected without putting in permanent wells. Hydraulic conductivity data could not be collected, but it could be obtained from existing Wells S57MW005 and –006.

  The next question was whether wells in the scrapyard could be used for sampling and groundwater level data. Sampling of the wells in the scrapyard could be done to help round out the remedial investigation report, but for the feasibility study those wells will not be helpful.

  In the area denoted as "E", wells 16 and 17 will be permanent. In areas "A", "B", and "C", samples will be hydropunch. Data collected from area "D" will be by soil borings.

  George discussed the possible remediation methods that will be used. The reactive wall is the most likely technology to use at this point.

- **Meeting adjourns at 5:50 PM.**

Thursday, August 31, 2000

- **Introductions**

Familiarizing group, catching up: NSWC Indian Head (host), Curtis DeTore, Anne Estabrook (scribe), Rob Sadorra, Tony Tomlin (minutes), Janet Eastman, Shawn Jorgensen (chair), Heidi McArthur (timekeeper), George Latulippe, Dennis Orenshaw (member facilitator), Kent Cubbage, Simeon Hahn, Chris Guy, Dean Neptune, Greg Tracey, Jason Speicher, David Barclift, Kelly Ackiewicz , and Steve Hirsh.

- **Begin meeting at 8:10 AM.**

- **Kent Cubbage – Mattawoman Creek Study Update**

  Purpose of discussion was to go over the problem formulation step in the process. Kent provided a general overview and background of the project to date. Two approaches came out of the initial study efforts and BTAG comments. The Proposed Ecological Risk Assessment Approaches draft document was handed-out.

  BTAG does not believe that their recommendations are outside of the traditional approach. BTAG considered that both approaches to be discussed were within the EPA guidelines for ecological risk assessments.

  The first approach was to complete a chemical screening. Samples would be collected to get comprehensive chemical data from Mattawoman Creek. COPCs would be set up for the whole site. There is not a defined list of COPCs for the whole creek, just COPCs at specific site locations.

  The second approach was termed the sediment triad approach. BTAG considers this approach as more of a baseline screening as opposed to a general chemical screening approach. This approach incorporates toxicity testing and other evaluation tools that would normally not be part of a screening study. It will provide a lot more data. The difference is that without a list of COPCs, this approach depends on existing data and operational histories to define which chemicals to evaluate.

  The Team wished to know what are the advantages and disadvantages of each approach. There are some chemicals for which benchmark/background data does not exist, so toxicity testing may be harder to evaluate in the sediment triad approach. Cost and scheduling will be an issue, because the second approach will compress the schedule and increase upfront costs. The screening approach will take a lot of time to condense the chemical list down into something that is manageable. Using the first approach will allow the Team to focus their efforts, where as problem areas may be missed if the second approach is used.

  Discussion of yesterday's boat tour of the creek commenced. BTAG observed that habitats were well defined. Fine-grained sediments were found in deposition zones. There is not a lot of mixing of sediments in the creek. Probable that discharges of contamination were deposited close to the discharge points and have not migrated far from the discharge points.

  The Team reverted to the discussion of disadvantages and advantages. Table 3-1, The advantages and disadvantages to the two proposed ERA approaches, was discussed.

Comments on the chemical screening approach advantages:

- BTAG disagrees that the chemical screening approach provides a comprehensive list of COPCs. The screening approach could be considered a disadvantage, because it provides a large number of potential contaminants that must be evaluated in order to narrow the list down to contaminants that will harm the ecology.
- The potential still exists to miss hot spots, even if a large number of screening samples are collected. Focusing on the regional effects, which could be assessed in the second approach, would be more helpful.
- TIE was discussed. Moving forward with the toxicity tests may cost more in the near term, but will provide useful data.

Comments on the chemical screening approach disadvantages:

- In the long-term, the screening method will probably cost more.

Comments on the advantages of the sediment triad approach:

- Evaluation of toxicity data will show whether there is an actual problem. If there is no problem in one area, it will be easier to say there is no problem in other areas with similar site parameters in the future.
- The toxicity testing allows you to evaluate how the ecology reacts to all the chemicals not just one specific chemical, such as silver.

Comments on the disadvantages of the sediment triad approach:

- There is a possibility that the sediment triad field effort may have to be redone if inappropriate analyses are determined to have been done in the first field sampling effort.

BTAG noted that even if risk is established it may be more detrimental to conduct any type of intrusive remediation. Cutting off contamination sources and long-term monitoring of the creek may be a better approach.

- **Took 15 minute break at 9:45 AM, then continued discussion of the Mattawoman Creek Study.**

After the break, Team began a discussion of their preferences on the study approaches. Dennis wanted to know if the triad approach and the screening approach could be combined to some extent. It was noted that the triad approach will include some chemical screening as part of the approach. For the remediation aspect of the study, more samples may be taken above those needed for the ERA.

DECISION: Teams agree that ERA screen has been completed and identified need to move forward into the baseline ecological risk assessment for the Mattawoman creek study.

The problem formulation needs to be completed before starting the approach. Technical leads need to sit down and set up a direction for the problem formulation. Historical

contamination sources and types of contaminants need to be determined. The technical leads will be able to establish sample locations and analytical constituents.

The issue of whether enough screening data is available was rehashed.

ACTION ITEM: Kent will talk to Jeff Bossart (Indian Head Natural Resources Officer) in regard to previous studies at Mattawoman Creek to be included in the problem formulation (9/15).

ACTION ITEM: Technical Team will develop problem formulation for Mattawoman Creek (9/26).

BTAG members, Kent Cubbage, Kelly, Dean Neptune, Jeff Bossart, and Greg Tracey will make up the technical sub-group.

- **Took a 5 minute break at 10:40.**
- **Greg Tracey – Toxicity Identification Evaluation (TIE) of RI Site 42**

  The purpose of this discussion is to inform the Team of the sampling scheme to be conducted in the TIE. The presentation was accompanied by a hand-out of the overhead slides used.

  The TIE program is for determining what chemicals are causing toxicity in the ecological system. The TIE is basically a toxicity assessment.

  The fractionation procedure will be done sequentially as opposed to doing it in parallel. First, bulk sediment samples will be taken and tested. Based on the analytical data, samples will be selected for use in the toxicity testing. Water decanted from the sediment samples will actually be used in the toxicity testing. Toxicity of particles, organics, selected metals (Cd, Cu, Ag, and Hg), other metals, ammonia, sulfides, and hydrogen sulfide in conjunction with ammonia will be tested separately. The sequence can be changed based on available data, but based on experience with this procedure there is normally not a change.

  The assumption of this procedure is that the sum of the parts is equal to the whole. The procedure does not consider synergistic effects. So, this method will not account for how, or if, one chemical may allow another chemical to be more toxic than if chemicals are encountered by themselves.

  Fifteen locations have been selected for sampling. Five gallons of sample will be collected at each location. The pore water out of these samples will be used in the toxicity tests. Samples were selected to cover a range of parameters such as chemical constituent concentrations, grain size, and total organic content. Sampling locations will be located via GPS. Arrangements will be made to have a traditional survey conducted if points are hard to locate via GPS.

  The fractionation method will tell you the specific constituents that are contributing to toxicity. The data from the bulk sample analytical testing may be used to generate response curves in order to set clean-up goals/action levels.

  The characteristics of recommended sites for the Indian Head TIE demonstration were discussed. Locations were picked because they will probably show toxicity. Silver, other metals, and ammonia are major factors in the selection of sites. A set of samples with high TPH concentrations will be taken. TPH is being checked to establish how high levels of TPH affect toxicity. Samples will be taken in areas where explosive contaminants are present. The

toxicity of explosives is not well known, so this study will help to establish information on these chemicals.

The schedule was discussed. The sampling program will begin in early October. TIE tests will be conducted in late October and early November. The draft report will be completed by December 11, 2000.

ACTION ITEM: Team members are to review the TIE study work plan and provide comments to Greg Tracey (9/8).

- **Partnering Schedule Discussed.**

The next partnering conference call will be at 10 AM on September 20th. The suggestion was made that the Philadelphia meeting start at 9 AM and end on the second day at 2 PM. A suggestion was made that the Pittsburgh meeting start at 8 AM on the first day and end at 5 PM that day.

- **Janet Eastman – Partnering**

Team discussed the dynamics in the morning portion of the meeting.

Janet went over strategies for dealing with disruptive behavior. A hand-out was given outlining the group exercise. The Team brainstormed and came up with disruptive behaviors and methods of dealing with them.

- **Review Action Items**

In addition to action items noted above the following items were added:

ACTION ITEM: Heidi to send George phone number for POTW (9/8).

ACTION ITEM: Team to provide comments on Site 12 and 41 draft Final FS to George (9/8).

ACTION ITEM: George to issue draft Site 12, 41, and 44 Final PRAP to Team (9/22).

- **Discussion of Next Meeting Agenda and Scheduling**

For the Philadelphia meeting, the meeting hours will be 10-6 on Tuesday and 8-2 on Wednesday. Self-facilitating instruction and institutional control discussions were placed in the parking lot. The scheduling of future meetings for February and March was placed in the parking lot.

Agenda items:

1. Workload tool by Anne and George. *Half hour.*
2. Mattawoman Creek problem formulation update by Kent. *One and a half hours.*
3. Team assessment. *Half hour.*
4. Finish partnering exercise on sidebar conversations. *Half hour.*

5. Sites 11, 13, 17, etc. update by Anne. *One and a half hours.*
6. Site 47 RI. *45 minutes.*
7. Site 57 FS WP by George. *45 minutes.*
8. Lab Area WP. *45 minutes.*
9. HAZWOPER and industrial hygenist requirements for workers on IR sites. *15 minutes.*

- **Schedule of future meetings.**

Date of meeting	26-27 September	25-26 October	29-30 November	10-11 January, 2001	February – Dates TBD
Location	**Philadelphia**	Pittsburgh	**Baltimore**	**CH2M HILL, Herndon, VA**	**Indian Head**
Host	**Dennis**	George	**CH2M HILL**	**CH2M HILL**	**Shawn**
Chair	**Dennis**	Curtis	**Rob**	**Shawn**	**Shawn**
Scribe	**Shawn**	Heidi	**George**	**Dennis**	**TBD**
Tier II Link	**John Fairbank**	**John Trepanowski**	**TBD**	**TBD**	TBD
Time Keeper	Rob	Dennis	**Shawn**	**George**	TBD

Team was unable to schedule a February meeting and will schedule both February and March meetings at next meeting.

- **Meeting Evaluation**

- **Adjourned at 3:00 PM.**

Actions Items Completed Since Last Meeting

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
4	**Finalize Remedial Investigation Report for Sites 15, 16, 49, and 53 by 04/06/01**: (a) Finalize Work Plan by 04/28/00 (b) Complete Draft Final Remedial Investigation report by 02/09/01	In progress	108	Send major comments on Sites 15, 16, 49, 53 WP to Anne	Rob Sadorra	04/19/00	Completed on 8/18/00	Completed
4	**Finalize Remedial Investigation Report for Sites 15, 16, 49, and 53 by 04/06/01**: (a) Finalize Work Plan by 04/28/00 (b) Complete Draft Final Remedial Investigation report by 02/09/01	In progress	108	Send major comments on Sites 15, 16, 49, 53 WP to Anne	Shawn Jorgensen	04/19/00	Completed on 8/18/00	Completed
12	**Mattawoman Creek Risk Study**	In progress	134	Develop work plan for TIE sampling at Site 42	Greg Tracy	06/28/2000	Completed on 8/30/00	Completed
9	**Complete Partnering Deliverables by 04/30/00**	In progress	135	Send Anne revised 2-Year Goal Plan and quarterly report format incorporating Tier II comments.	Rob Sadorra	06/28/2000	Completed on 8/4/00	Completed

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
9	**Complete Partnering Deliverables by 04/30/00**	In progress	136	Create a 2-Year Goal Plan poster board based on Robs revised comments	Anne Estabrook	06/28/2000	Completed on 8/30/00	Completed
9	**Complete Partnering Deliverables by 04/30/00**	In progress	147	Incorporate Tier II input into deliverables package	Anne Estabrook	06/29/2000	Completed on 8/30/00	Completed
6	**Scope Sites 5, 7, 8, 14, 24, and 28 by 10/06/00**	To be defined	To be defined	To be defined	To be defined	To be defined	To be defined	To be defined
5	**Revise Fieldwork for Sites 11, 13, 17, 21, and 25**	In progress	149	Provide aerial photograph of Bronson Rd Landfill to Anne Estabrook	Rob Sadorra	07/25/2000	Completed on 8/1/00	Completed
5	**Revise Fieldwork for Sites 11, 13, 17, 21, and 25**	In progress	150	Overlay aerial photograph with current geophysical data and evaluate whether additional geophysical survey is needed.	Anne Estabrook	07/25/2000	Completed on 8/4/00	Completed
3	**Finalize Remedial Investigation Report for Site 47 by 07/17/00**	In progress	151	Distribute additional copies of Draft Final Site 47 RI.	Anne Estabrook	07/25/2000	Completed on 8/11/00	Completed
To be defined	**Basewide Background Report**	To be defined	153	Find out whether or not he has any comments on the Background Report and let George and Dennis know either way.	Shawn Jorgensen	07/25/2000	Completed on 8/4/00	Completed
To be defined	**Basewide Background Report**	To be defined	153	Find out whether or not he has any comments on the Background Report and let	Rob Sadorra	07/25/2000	Completed on 8/4/00	Completed

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
				George and Dennis know either way.				
9	**Complete Partnering Deliverables by 04/30/00**	In progress	155	Send new Site List to Anne for incorporation into deliverables hand-out.	Rob Sadorra	07/25/2000	Completed on 8/4/00	Completed
9	**Complete Partnering Deliverables by 04/30/00**	In progress	156	Review entity roles and make any changes. Forward changes to Anne or let her know they do not have any changes.	All Core Team	07/25/2000	Completed on 8/18/00	Completed
2	**Finalize Treatability Report for Site 57 by 03/13/01**: (a) Finalize Remedial Investigation by 03/07/00 (b) Finalize Treatability Study Work Plan by 07/04/00	In progress	157	Send alternative technology information to George for Site 57.	Rob Sadorra	07/25/2000	Completed on 8/4/00	Completed
12	**Mattawoman Creek Risk Study**	In progress	159	Review the draft work plan and discuss with Kent or George any comments by the next partnering meeting (8/30).	All Core Team	07/26/2000	Completed on 8/30/00	Completed
To be defined	**TIE Study at Site 42**	To be defined	160	Set up a technical group meeting for the TIE Study at Site 42.	Greg Tracy	07/26/2000	Completed on 8/30/00	Completed
9	**Complete Partnering Deliverables by 04/30/00**	In progress	161	E-mail Consensus Agreement to technical leads and other team members.	Anne Estabrook	07/26/2000	Completed on 8/27/00	Completed
9	**Complete Partnering Deliverables by 04/30/00**	In progress	163	Make changes to Deliverables and bring copies to next meeting.	Anne Estabrook	07/26/2000	Completed on 8/30/00	Completed
To be defined	To be defined	To be defined	164	Send Greg Tracy copy of Site 39 and 41 RI.	George Latulippe	07/26/2000	Completed on 8/4/00	Completed

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
10	**Become a Self-Facilitating Partnering Group by 10/01/00**	In progress	165	Identify one or two items on Meeting Skills Checklist to improve on at next partnering meeting.	Core and Adjunct Team Members	07/26/2000	Completed on 8/30/00	Completed

Open Action Items

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
10	**Become a Self-Facilitating Partnering Group by 10/01/00**	In progress	To be defined	To be defined	Core team	10/27/99	In progress	10/01/00
4	**Finalize Remedial Investigation Report for Sites 15, 16, 49, and 53 by 04/06/01**: (a) Finalize Work Plan by 04/28/00 (b) Complete Draft Final Remedial Investigation report by 02/09/01	In progress	109	Make necessary changes to Sites 15, 16, 49, 53 WP and send additional copies and .pdf file to Rob and Shawn for distribution to the RAB	Anne Estabrook	04/19/00	In progress	09/01/2000
4	**Finalize Remedial Investigation Report for Sites 15, 16, 49, and 53 by 04/06/01**: (a) Finalize Work Plan by 04/28/00 (b) Complete Draft Final Remedial Investigation report by 02/09/01	In progress	110	Send comments on Sites 15, 16, 49, 53 WP to Anne	Dennis Orenshaw	04/19/00	In progress	10/06/2000
4	**Finalize Remedial Investigation Report for Sites 15, 16, 49, and 53 by 04/06/01**: (a) Finalize Work Plan by 04/28/00 (b) Complete Draft Final Remedial Investigation report by 02/09/01	In progress	110	Send comments on Sites 15, 16, 49, 53 WP to Anne	Curtis DeTore	04/19/00	In progress	10/06/2000
4	**Finalize Remedial Investigation Report for Sites 15, 16, 49, and 53 by 04/06/01**: (a) Finalize Work Plan by 04/28/00 (b) Complete Draft Final Remedial Investigation report by 02/09/01	In progress	111	Send RAB comments on Sites 15, 16, 49, 53 WP to Anne	Shawn Jorgensen	04/19/00	In progress	10/10/2000

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
4	**Finalize Remedial Investigation Report for Sites 15, 16, 49, and 53 by 04/06/01**: (a) Finalize Work Plan by 04/28/00 (b) Complete Draft Final Remedial Investigation report by 02/09/01	In progress	112	Submit Final Sites 15, 16, 49, 53 WP	Anne Estabrook	04/19/00	In progress	TBD
To be defined	**Basewide Background Report**	To be defined	154	Have final comments on background report by October partnering meeting	All Core Team	07/25/2000	In progress	10/25/2000
2	**Finalize Treatability Report for Site 57 by 03/13/01**: (a) Finalize Remedial Investigation by 03/07/00 (b) Finalize Treatability Study Work Plan by 07/04/00	In progress	158	Add alternative technologies to Site 57 Work Plan.	George Latulippe	07/25/2000	In progress	09/26/2000
To be defined	To be defined	To be defined	162	Create a work load management tool.	Anne Estabrook	07/26/2000	In progress	09/26/2000
To be defined	To be defined	To be defined	162	Create a work load management tool.	George Latulippe	07/26/2000	In progress	09/26/2000
5	**Revise Fieldwork for Sites 11, 13, 17, 21, and 25**	In progress	166	Check surface water drainage patterns through Site 13	Shawn Jorgensen	08/30/2000	In progress	09/08/2000
5	**Revise Fieldwork for Sites 11, 13, 17, 21, and 25**	In progress	167	Check history of chemical incinerator at Site 17	Heidi McArthur	08/30/2000	In progress	09/08/2000

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
To be defined	To be defined	To be defined	168	Revise the work load management tool.	Anne Estabrook	08/30/2000	In progress	09/26/2000
To be defined	To be defined	To be defined	169	Revise the work load management tool.	George Latulippe	08/30/2000	In progress	09/26/2000
5	**Revise Fieldwork for Sites 11, 13, 17, 21, and 25**	In progress	170	Evaluate Site 17 and 25, develop proposals for Phase II work, distribute proposals to team, and set-up conference call to discuss	Anne Estabrook	08/30/2000	In progress	09/08/2000
5	**Revise Fieldwork for Sites 11, 13, 17, 21, and 25**	In progress	171	Check on Building 588 for historical explosives use.	Shawn Jorgensen	08/30/2000	In progress	09/08/2000
5	**Revise Fieldwork for Sites 11, 13, 17, 21, and 25**	In progress	172	Check on Building 588 for historical explosives use.	Heidi McArthur	08/30/2000	In progress	09/08/2000
12	**Mattawoman Creek Risk Study**	In progress	173	Talk with Jeff Bousch about previous Mattawoman Creek studies	Kent Cubbage	08/31/2000	In progress	09/15/2000
12	**Mattawoman Creek Risk Study**	In progress	174	Develop problem formulation for Mattawoman Creek	Technical Team	08/31/2000	In progress	09/26/2000

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
To be defined	**TIE Study at Site 42**	To be defined	175	Review work plan and provide comments to Greg Tracey	Core Team Members	08/31/2000	In progress	09/08/2000
12	**Mattawoman Creek Risk Study**	In progress	176	Send George Latulippe the phone number to the POTW	Heidi McArthur	08/31/2000	In progress	09/08/2000
1	**Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01**: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In progress	177	Provide comments on Site 12 and 41 draft Final FS to George Latulippe	Core Team Members	08/31/2000	In progress	09/08/2000
1	**Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01**: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In progress	178	Issue draft site 12, 41, and 44 Final PRAP	George Latulippe	08/31/2000	In progress	09/22/2000