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TIER 1 MEETING MINUTES BETWEEN 12 MAY AND 13 MAY 2009 NCBC GULFPORT MS
5/12/2009
NCBC GULFPORT

MINUTES
NCBC Gulfport Tier I Meeting
Biloxi, Mississippi

May 12 – 13, 2009

Meeting Attendees

Team Members:

Gordon Crane	NCBC Gulfport, IRP Manager
Bob Merrill	MDEQ, State RPM
Robert Fisher	NAVY RPM
Nancy Rouse	The Management Edge, Facilitator
Yarissa Martínez	Tetra Tech NUS, Inc., Project Manager
Jacqueline Strobl	Tetra Tech NUS, Inc., Scribe
John Overholter	CH2M Hill, Project Manager
Helen Lockard	NAVY, Tier II Link
Peggy Churchill -2 nd day	TtNUS, DQO Facilitator

1. 1st Day Check-In (Tuesday, May 12, 2009)

Welcome and Administrative – Nancy Rouse

- Proxies/Guests – There were no proxies. Guest Helen Lockard (Tier II Link).
- Review Agenda – adjustments noted.

Each meeting attendee provided a brief personal update. The agenda was reviewed and adjusted as necessary. Team Ground Rules have not been finalized; therefore its review was postponed and will instead be discussed during the partnering exercise.

Parking Lot - The Action Items will be reviewed / projected after the break.

2. Tier II Update – Helen Lockard

Helen Lockard provided a Tier II update to the Team, noting the recent induction of new members and the decision to have the same Management Edge facilitator, Nancy Rouse, for all the Mississippi Tier I teams. Helen noted that she would be serving as the Tier II Link for the Gulfport Partnering Team; Debbie Humbert will serve as the Tier II Link alternate.

Mrs. Lockard explained that Tier II attempts to select a non-biased, non-involved member to serve as a link in order to communicate between Tier I and Tier II teams. Helen noted that the Tier II Links are not considered to be voting members; the intention is to help and observe rather than actively participate. The Tier II Link is supposed to be objective, which is easier if you are not heavily involved. The intention is to provide information on global policy updates, DOD

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changes, and offer assistance concerning any issues that may not be able to be resolved at the Tier I level.

Mrs. Lockard noted that discussion concerning the possibility of a joint Tier I/II meeting was on the agenda. It was stated that there was potential for training, technical presentations, as well as discussions/presentations on what other teams are doing.

The other item discussed/stressed at the last Tier II meeting concerning Gulfport was the updated exit strategy. Tier II hasn't seen an exit strategy for Gulfport in a very long time. The exit strategy is supposed to be discussed during the Tier II meetings.

Mrs. Lockard briefly discussed the UFP-SAP and IROD documents. The UFP-SAP, which will be used for all sampling, is a format that attempts to standardize everything. The IROD guidance has been unclear; the Navy is currently working with TtNUS to work on streamlining the document format in order to avoid redundant information and establish consistency. Helen also stated that within each format there is enough flexibility to tailor them to fit each state.

Mr. Fisher brought up the possibility of questions/discussion RAC IV/CLEAN IV and suggested adding it to the agenda. The team expressed interest in exploring the topic.

3. RAB Meeting – Yarissa Martinez

The Team briefly discussed the RAB Meeting held the previous night. The new location, though a bit difficult to find, was well received. Unfortunately there was a very low turn out.

During the RAB Meeting Marie Hansen (RAB Member) brought up questions concerning AOC 4. Mr. Fisher pointed out the area in question on a figure for the Team and provided a brief overview concerning the AOCs' history and MDEQ requests.

Bob Merrill stated that MDEQ doesn't need the Navy to sample out there at this time, but would prefer to have an EM survey conducted, because of the community's concern.

Mr. Fisher noted that the TtNUS field crew was out collecting samples for Phase II on the Off-Base AOCs. MDEQ is interested in collecting split sampling, but it was not possible at this time.

Mr. Fisher resumed discussion concerning Marie Hansen's AOC 4 questions, noting that he had reported back to her several RABs ago. MDEQ definition of AOC 4 could not be confirmed at the field. However, the drainage through that entire area flows towards Turkey Creek. Therefore, if there is something in the drainage, it will end up in Turkey Creek and will show up when the sediment is sampled. During the first phase, nothing was found that could indicate that there is a problem. During the Phase II, this will be investigated further, but if no evidence is found to support the claim of the community, this would be the last investigation phase for the AOCs. The Navy has investigated several of the community's stories and only one led to finding anything.

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Mr. Fisher stated that unless something shows up north of the landfill, then the investigation should be considered complete. Mrs. Lockard noted that this has not been discussed at the Tier II level. It has been a matter discussed internally by the Navy lawyers.

Merrill stated that the only way the Navy could be held responsible for any drum burial or disposal in the off-base areas would be if drums, still intact and recognizable as Herbicide-Orange drums, were found.

Parking lot – Next steps of investigation.

If the investigation results are inconclusive, the next step would be more of a legal matter, since it is not likely that funds could be used based on speculation. Further guidance would be necessary.

Navy noted that once the data was received from the samples collected this week, we should be able to conclude that there is no reason to continue the investigation.

4. Review of Previous Action Items

The Team took a short break while TtNUS set the projector. The Team reviewed the Ongoing Action Items:

Ongoing Action Items					
Action Item No.	Responsible Party	Status	Due Date	Action Item	Comments
A-1108-01	N. Rouse	Ongoing	1/22/09	Develop cost proposal for adding RAB members.	
A-1108-03	B. Fisher	Completed	5/12/09	Summarize status of off-base property issues in an e-mail to the team.	Bob will report to the team at the next Tier I meeting.
A-1108-04	G. Crane & B. Fisher	Ongoing	TBD	Track resolution of 8B and 8C wear surface and keep team apprised.	Milcon project, in various phase (not IR money).
A-1108-05	B. Fisher	Ongoing	TBD	Contract development of a monitoring plan for Site 8.	Funding has been allocated for the monitoring plan and will be contracted. Working on defining the LTM process with MDEQ.
A-0209-01	G. Crane	Completed		Will get more information from Tier II on “Joint Meeting”	The Tier II link will provide more information at the next Tier I meeting

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Ongoing Action Items					
Action Item No.	Responsible Party	Status	Due Date	Action Item	Comments
A-0209-02	Y. Martínez	Completed		Take first step in developing exit strategy to be ready for May Tier I & June Tier II meeting.	The draft has been completed for discussion at the next Tier I meeting.
A-0209-04	B. Fisher	Completed		Will contact Helen concerning contracting CH2MHill for Tier I participation.	CH2M Hill will be added to the Tier I. Funding issues still to be resolved.
A-0209-05	G. Crane	Completed		Gather fact sheets and other info for Sun Herald via PAO.	
A-0209-06	G. Crane	Completed	2/16/09	Follow up on Fred Boykin concern through a phone call	Gordon contacted Mr. Boykin and his concern was not related to NCBC. Referred to USACE.
A-0209-07	G. Crane	Completed		Request additional copies of PHA.	Requested but not yet received. Gordon will make copies if needed.
A-0209-08	G. Crane & N. Rouse	Completed		Confirm new RAB mtg. location.	
A-0209-12	B. Fisher	Ongoing	2/20/09	Talk to Steve Beverly concerning notifying land owners about the completion reports.	Steve requested to review documents prior to sharing the document with land owners.
A-0209-13	B. Fisher	Ongoing	2/12/09	LTM Planning and funding Site 8 sediment.	
A-0209-14	N. Rouse	Ongoing	2/13/09	Confirm community relations actions needed for site 8c.	
A-0209-15	B. Fisher	Completed		Schedule discussion/meeting with optimization team for site 10 to complete report.	The meeting has been held. The remedy will include placing a culvert in the ditch and revising existing reports. However, funding is not available at this time to revise the documents.

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Ongoing Action Items					
Action Item No.	Responsible Party	Status	Due Date	Action Item	Comments
A-0209-16	B. Fisher	Completed		Will review pilot scale sites 3 & 4 funding.	Optimization team determined that the concentrations at Site 3 were too low for enhanced bioremediation. A pilot study will be funded for Site 4.
A-0209-17	B. Fisher	Complete	5/12/09	Resolve Edwards property site restoration issues (letter from the state).	Overcome by events. MDEQ has sent a letter concurring with the investigation results.
A-0209-19	N. Rouse	Ongoing		Find BOP dates and forward to team.	Nancy will forward email regarding updated BOP dates.
A-0209-20	N. Rouse	Ongoing	4/17/09	Nancy will find the EPA training link and forward the link to the team	
A-0312-01	G. Crane	Completed		Get information about the West Side Community Center	
A-0312-02	N. Rouse	Completed		Provide information to Gordon in order to assist him to get the contact for the Public Assessment Study	
A-0416-01	G. Crane	Completed	4/27/09	Secure RAB meeting room	
A-0416-02	B. Fisher	Completed	TBD	Identify future funding for CH2M Hill Tier I participation	
A-0416-03	Y. Martinez	Completed	4/27/09	Provide surface soil data from Site 6 to Gordon Crane and Bob Fisher	

Note:

Shaded rows have been noted as “Completed” and will be removed from the Ongoing Action Items Table prior to the next action item review.

Action Item A-0509-01: Robert Fisher - Send Bob Merrill the updated portions of the completion report for Canal Rd. (Due 6/4)

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Action Item A-0509-02: Robert Fisher - Verify the correct process (is there something needed for the landowner to close the investigations) to close the investigation (final step) for Canal Rd with Steve Beverly. (Due 6/4)

During review of Ongoing Action Item A-0209-17 Gordon noted that the Navy never had a signed access agreement with Edwards; there had been language in a drafted agreement concerning keeping the road in usable condition, as well as language addressing the pond, however, nothing was ever put together and officially signed.

The next RAB would be in August 10, 2009. The Navy will coordinate appropriate funding for the RABs to continue without any interruptions.

Action Item A0-509-03: Gordon Crane - Verify RAB administration funds (for meeting place, signs, etc.) (Due 6/4)

5. Lunch

6. Contractor Issues – Bob Fisher

The Navy provided a brief contract update. Due to funding issues CLEAN IV modifications and task orders have been put on hold. However, there is a new contract vehicle for TtNUS, the CLEAN IV contract, which is actually referred to as CLEAN 1001.

TtNUS expressed concern over Site 6, on which there is quarterly monitoring; it was supposed to have a second year of monitoring.

Helen clarified that the CLEAN contracts basically cover site studies, while RAC contracts are passed along to the contractors to begin the work. CLEAN and RAC are both cost plus contracts. Gordon asked whether or not the Navy was keeping the EMAC program.

Helen replied that the Navy was keeping the EMAC program, but that in the mean time they are going to have an alternate environmental contract as a temporary fix.

Bob Fisher and Helen briefly described the CLEAN 1001 contract, noting that TtNUS had the contract, and that it was being managed out of NAVFAC Atlantic. They intend to use the same project managers, but additional administrative details will be discussed later.

7. Round Table Discussion (Joint Tier I/Tier II Meetings, Outstanding Action Items/Loose Ends)

Mrs. Lockard explained that the Tier II intent in proposing a joint Tier I/II meeting was to benefit the Tier I team. The joint Tier I/II meetings topics have included team success stories, technical presentations, and training. The joint meetings have also presented an opportunity for networking and discussing new technologies.

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Bob Merrill posed the question of whether or not this type of meeting would really be beneficial to the team. Mr. Merrill expressed his concern that an additional meeting would put him further behind on document review.

The team discussed the topic further, noting that the meeting would need to be tailored to be relevant to the Gulfport Partnering Team. Nancy suggested taking a moment to brainstorm to come up with potential joint Tier I/II meeting topics:

- What is the future of MDEQ's relationship with the Navy? (MRP Sites?)
- Lessons Learned (other partnering experiences)
- Clarify Tier I/II standard communications (MS)
- Identify how other Tier I/II teams communicate
- Clarify what does the Tier II team expects Tier I to bring to the table
- Can lines of communications be opened between Tier I & II members?
- Success stories from each team
- Networking
- Technology topics (ex. sustainable remediation, multi-increment sampling, listing of sites: challenges and types of RA, site closeouts, LUCs)

8. Break

Nancy noted that the last discussion was heavily team building. Because of this, the time allotted to the partnering exercise agenda item was reduced. Nancy provided a brief review of the agenda since discussion was running behind schedule.

Action Item A-0509-04: Bob Fisher - Verify legal requirements related to RCRA Permit on Site 8 with Steve Beverly. (Due 8/11)

9. Exit Strategy/Long- and Short-term Goals – Robert Fisher

Mr. Fisher explained that for years Gulfport has not had an Exit Strategy. Instead the Team kept a list of priorities, which has worked well at the Tier I level, but hasn't been a great way to convey information to Tier II. The Exit Strategy is really a tool to communicate when we need to bring activities to a close and how to measure our success. These things weren't expressed to us by our last Navy RPM; we just understood generally when he received pressure from his superiors.

Mr. Fisher and Yarissa provided additional information on the questions answered/details provided in the Exit Strategy:

- What's in progress?
- What is the contractor currently working on?
- What phase is the site in?

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Bob Fisher pointed out that the Remedy In Place (RIP) dates are the dates projected in the NORM database. The RIP date doesn't have to be the final remedy, it can/should be the initial action.

The Team began a site by site Exit Strategy review:

Site 1: Disaster Recovery Area

The RI is in progress (TtNUS); it has not yet been submitted.

Mr. Fisher and Yarissa agreed the forecasted RIP date was not realistic. Helen stated that if the site ranking was at medium, then the RIP date could be pushed back to 2011.

Gordon noted the site has a lot of problems concerning drainage, infrastructure needs, etc. Bob Fisher replied that he had walked the site with the drainage engineer. Site 1 is basically a bowl; the soil fill required to change this is cost prohibitive.

Action Item A-0509-05: Gordon Crane – Verify NCBC plans/needs for Site 1 (footprints). (Due 5/26)

Once the exit strategy had been finalized and reviewed at the Tier II meeting, the Navy will update the NORM database.

Mr. Fisher stated that the plan included cover, LUCs, and monitoring. Concerns/barriers: long term site plans at NCBC and funding issues.

The Team took a moment to review the site rankings:

High – Sites 6 and 10

Medium – Sites 1, 2, 3, 4, 5, and 8

Low – Site 7

Helen stated that once the Baseline date is established, it does not change.

Site 2: World War II Landfill

TtNUS has just started the RI.

Bob Fisher stated that assuming no plumes were found, and assuming the SAP goes through the first time, TtNUS could begin to write the RI Work Plan in the next month.

Concerns/barriers: Trying to accommodate the golf season, irrigation issues, wetland issues (Magnolia Bay).

Site 3: Northwest Landfill/Burning Pit

The Site 3 RI is a priority.

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Concerns/barriers: golf course, new housing construction
Site 4: Golf Course Landfill

Bob stated that work has been started on the RD/FS/RI – these had been stacked up.
Helen noted that this should probably be considered the highest priority. The remedial action is in place because the funding was available.
Mr. Fisher stated that the PP could be written before the RA process finished.

Concerns/barriers: Need to work close with the gulf club house, which will impact their business. There are also two bridges that will be a concern. Drainage should not be an issue; permitting is in place to line it. Gordon noted that an irrigation system would be put in, stopping at the edge of Site 4.

Site 5: Heavy Equipment Training Area Landfill

Remedial Action is in progress.
Concerns/barriers: Establishing the vegetative cover (getting the grass to grow).

Site 6: Fire-Fighting Training Area

No Decision Document (DD) for Site 6; the action memorandum in July of 2008 incorporated the two system changes and updated that.
Comments: The action memo was revised in 2008 (use the original memorandum date for the DD baseline)
Concerns/barriers: Parking area being built on the site; 2 of 5 monitoring wells will be affected.

Action Item A-0509-06: Gordon Crane – Verify the dates of the installation/removal of the response system at Site 6. (Due 5/26)

Site 7: Rubble Disposal Area

ESI in progress (did an ESI in 1999).
Bob Fisher stated that there were breakdown products from solvents. It may be naturally attenuating.
Concerns/barriers: VOCs and the golf course

Bob Merrill asked what happens if these deadlines are not met.
The Navy explained that they could lose their funding. Mrs. Lockard explained that they will be asked why things weren't finished when the funds were available; NCBC Gulfport in particular has so few sites compared to other bases that it would be difficult to justify not meeting the deadlines.

Site 8: Air Force Herbicide Orange Storage Area

Site 8A: The DD is in progress but has not been signed.

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Site 8B&C: The DD is in progress.

Bob Fisher stated that his plan was to use the LTM to tie up 8b&c and get the DD in place. Mr. Fisher explained that the intent of the LTM of the sediments was to have an early warning sign of dioxins moving downstream.

Further Team discussion concerning a LUC RD led to the agreement that Sites 8a, 8b, and 8c would be covered by a single LUC RD document.

Site 10: PCB in the Ditch

Removal action was performed in April of 2000 (need to check the date); this counts as the RIP date.

Yarissa asked whether or not a DD was necessary. Bob Fisher replied that it had been a removal action, not a remedial action.

Concerns/barriers: utilities (gas); medical clinic nearby

Action Item A-0509-07: Gordon Crane & Nancy Rouse – Provide Tetra Tech NUS, Inc. a copy of the administrative record. (Due 5/13)

Action Item A-0509-08: Yarissa Martínez – Complete the exit strategy and email the team for consensus.

10. Closing

Nancy asked the Team whether or not they wanted to do the Partnering Exercises in the morning as part of or in lieu of the check in. The team had no objections to having the Partnering Exercises in the morning. Nancy asked the team to prepare an answer to the question “What was the most difficult or important challenge of your childhood?”

1. 2nd Day Check In

Each meeting attendee provided a brief personal update.

2. Partnering Exercise

Where did you grow up?

How many kids were in your family?

What was the most difficult or important challenge of your childhood?

3. Site 2 DQO's – Peggy Churchill (TtNUS)

Peggy Churchill explained that she was providing an introduction to the UFP-SAP since this would be the Team's first exposure to it. Mrs. Churchill stated that she would be providing an overview, discussing the origins, introducing the 7 Steps, and reviewing the Conceptual Site

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Model (CSM). Depending on site complexity and the functionality of the group, the DQO process can take several days. It is expected that the Team should be able to get through Step 4 before lunch.

Mrs. Churchill briefly explained the TtNUS review process, noting what happens before it gets to the Navy chemist. Each attendee provided feedback concerning their level of experience.

Mrs. Churchill explained that the idea behind the process was to protect the Team from having issues down the road. The idea is to get input from everyone, so that you know what to do with the data collected. The point is to capture goals, objectives, issues, and resources; it is purpose driven; it clearly defines the problem through the agreed upon CSM, it identifies goals, and it focuses on the desired end state and exit strategy. These things are important to identify, in order to know when things can be considered complete/finished.

Peggy provided background information on the origin of the UFP-SAP with a Power Point Presentation. The UFP-SAP was developed by the IDQTF Workgroup in response to an IG report on data quality. This work group included the EPA, DOD, and DOE.

UFP-SAP Elements

- Problem solving and objectives
- Conceptual site model
- Sampling design and rationale
- Action levels and analytical methods
- Verifications, validation, and usability
- Exit strategy

DQO Overview

- Problem Statement - What questions are you trying to answer?
- Study Goals
- Information Inputs - all info used in this investigation
- Study Area Boundaries - sometimes this is predefined
- Decision Rules - how we use the data
- Performance and Acceptance Criteria - statistics used to determine how many samples are needed to be representative.
- Data Collection Plan - sampling plan

Mrs. Churchill projected a figure of Site 2 and asked Mr. Fisher for explanation of the site since the team members had not been there. Mr. Fisher provided Site 2 background information stating that the site had been a trench and fill landfill; they used to burn at this site (accelerant was used). Previous documents state that daily burns took place, but others said that was not the case. There many different types of things disposed there. The groundwater is around 4-6 ft bls. When the IAS was performed in 1985 the assumption was that the groundwater flowed to the south, and installed wells accordingly. The groundwater actually flows north-northwest and changes seasonally. A monitoring report was completed in 1997. In 1998 monitoring wells were installed downgradient.

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Mr. Fisher went on to say that this is a presumptive remedy, so it does change our approach and how much data we'll need. What we have at this site is very little flow; another issue is the significant layering of silt/sands at the surface. It should also be noted that across the street at Site 3 (to the west) there was some chlorinated solvent that created some very bizarre plume maps. Due to that experience, these are some things we'll be looking for at Site 2.

Mr. Fisher stated that the 1985 data was useless since it was collected upgradient. Groundwater samples were collected in 1998 from the downgradient monitoring wells. Afterwards a CSM was developed. The thought was that an RI would be completed quickly, but it didn't happen.

Peggy asked when the golf course was built. Bob Fisher replied that it happened in 1997 or 1998.

Bob noted that because of the fill placed at the site (0-8ft), a pond was created; there had been a wet area, which was turned into a course feature. This changed the hydrology somewhat.

Mrs. Churchill asked what happened to the soil that was moved in order to create the pond. Gordon Crane responded that it had been put into borrow pits which were used onsite.

TtNUS asked if the 1987 Confirmation Study data could be used. Mr. Fisher replied that it could be incorporated, but that it wouldn't really change the number of samples. The 1987 monitoring wells were destroyed during the golf course construction. The problem with the geophysical study was the wide grid. There were big sediment studies in the 1990s which covered this area, and a delineation report. A lot of data was collected, but it was really focused on the Herbicide-Orange.

Gordon asked whether or not the wetland might act as a reservoir for anything. Mr. Fisher replied that sampling would take place there.

Bob Fisher asked whether or not the bunkers were still being used. Gordon replied that they were still in use.

Mr. Fisher noted that access can be an issue. There are a lot of unknowns.

Action Item A-0509-09: Gordon Crane – Provide the team with aerial pictures related to Site 2.

Mr. Fisher explained that the presumptive remedy in this case will be a cover over the landfill. There is guidance as to what the cover needs to be. This would be the fourth of the landfills that have been covered at Gulfport.

Mr. Fisher noted that this is a reducing environment.

The Team reviewed the CSM.

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Sources:

- Construction debris (preserved wood – DPT issues)
- Solvents
- Paints
- Coal-tar Distillate
- Dioxins – from burning
- Might have some medical waste out there
- General municipal wastes

Gordon brought up information concerning a possible MRP site. A pistol range was located to the north of Site 3. The berm may have been on Site 2.

Action Item A-0509-10: Gordon Crane – Send the team information concerning the potential MRP site.

Yarissa asked Gordon what was stored in the bunkers.

Gordon replied that they used to store small ordnance; two of the bunkers are still actively used.

Action Item A-0509-11: Gordon Crane – Send Yarissa information regarding the bunkers (former small ordnance storage area) at Site 2.

Yarissa expressed concern regarding the possibility of small ordnance at the bunker locations in relation to field personnel safety.

Primary Media

- Surface soil
- Bottom of waste soils in contact with groundwater

Migration Pathways:

- Seasonal fluctuation of groundwater
- Infiltration
- Runoff/erosion
- Surficial aquifer vs. deeper aquifer (20-30 ft bls)

Secondary Media

- Surface water, groundwater, surface & subsurface soil

Peggy asked whether or not MDEQ makes a determination on drinking water status. Bob Merrill replied that they did not.

Receptors

- Ecological
- Human (screen residential – Tier 1 TRGs which are essentially the same as the EPA residential; recreational use, trespassers, industrial/construction workers, people fishing).

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Mr. Fisher replied that risk at other landfills in the base has been very low. The only issue was concerning the consumption of groundwater.

The Team discussed the complete/potentially complete secondary sources/media. If feasible, the cap will be as close to a RCRA model cap as possible.

Exposure Pathways (the way the receptor will be exposed or potentially at risk)

- Ingestion of groundwater
- Dermal Exposure
- Inhalation

STEP 1: PROBLEM STATEMENT

What environmental question are we trying to answer?

What type of investigation is it?

What media will be investigated?

Are there any COPCs? Can we narrow down the analytes list?

Questions:

Are humans/ecological receptors at risk from exposure to contaminated media (groundwater, surface water, surface soil, subsurface soil, sediments) at the site?

Does the site meet presumptive remedy requirements?

Will the presumptive remedy (landfill cover) remedy/mitigate risk?

Presumptive Remedy Municipal Landfill – Team Review

Determine whether or not the containment presumption is appropriate.

- What do you do if the answer is no? – specialized conditions noted
- If yes? – go with presumptive remedy

Highlight 1 – containment strategy

- landfill cap
- source area groundwater control to contain plume
- leachate collection and treatment
- landfill gas collection and treatment, and/or
- institutional controls to supplement engineering controls

RAOs

Presumptive remedy RAO:

- prevent direct contact with landfill contents
- minimizing filtration and resulting contaminant leaching to groundwater
- controlling surface water runoff and erosion
- collecting and treating contaminated groundwater and leachate to contain the contaminant plume and prevent further migration from source area; and
- controlling and treating landfill gas

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Non-presumptive:

- remediating groundwater
- remediating contaminated surface water and sediments; and
- remediating contaminated wetland areas

Peggy explained that the overall study goal is to determine if containment is appropriate. If it isn't then you almost need to have another assessment/investigation.

Mr. Fisher stated that when the USEPA looked at the RODs you could see that the caps dominated the technologies applied.

STEP 2: STUDY GOAL

What are the main objectives of this investigation?
How will the environmental questions get answered?

The study goal is written as an "if, then" statement.

Determine whether or not the containment assumption is appropriate (flow chart).
The secondary study goal is risk assessment.

STEP 3: INFORMATION INPUTS

What type of data and information is needed in order to achieve the study goals?
What information should be collected?
How may land reuse plans affect remedy selection?
Determine old data that is usable, what new data will you collect?

The Team noted that due to the nature of the sources the analyte list for Site 2 will be lengthy.
Bob Merrill suggested starting with a target compound list.

Chemical Data:

TCL VOCs & SVOCs

PAHs

TRPH (will address with the state)

TAL metals;

Dioxins? – Bob Fisher stated that it may not be necessary to test all the media for landfills; selective analysis for dioxins would probably be a good idea, but could be limited to surface soil, groundwater and sediment in select locations

Pesticide/herbicides

PCBs – limited investigation

Total Organic Carbon – surface soil

Mr. Fisher noted that the team should define the site dynamics, and highly immobile contaminants.

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Mrs. Churchill asked whether or not the presumptive remedy addressed monitoring issues. Mr. Fisher replied that the presumptive remedy doesn't really include details concerning long term monitoring. Previously, we applied the Michigan model for statistical analysis to the total number of sampling points, and then broke it down into subdivided areas. The end result was about 15-20%, so we're going to have a lot of volatiles. Then we selected points for the less mobile contaminants.

Physical Data:

Six field parameters for groundwater.

- 1a. Geotechnical parameters: limited to hydraulic conductivity and grain size (unless we were doing load bearing issues, which isn't anticipated) Geophysical study will help determine boundaries of landfill.
- 1b. Soil/Gas Study – what cells have hot spots?
2. DPT – surface soil, subsurface soil, groundwater – from stinger and temporary wells in select locations; PID screening – subsurface samples
3. Permanent wells – sediment, surface, wetland area
Slug/Aquifer Testing

Peggy asked how the geophysical survey would impact sample location. Mr. Fisher replied that the geophysical data is really good for providing physical boundaries, but it doesn't tell you which cells have mobile/immobile contaminants. A soil gas study helps refine the geophysical study info.

Yarissa noted that there had been some TtNUS concern regarding the possibility of geophysical/soil-gas study issues/equipment interference.

Bob Merrill informed the Team that the Mississippi Geological Survey will e-log soil borings for free, if coordination takes place prior field event commencement.

Peggy asked how many wells would be advanced to the deep aquifer. Mr. Fisher replied that there would probably be no more than four. Peggy noted that this would help define the vertical boundary.

STEP 4: STUDY AREA BOUNDARIES

Horizontal Boundary: The boundary will be determined by the results of the geophysical study, unless a Phase II investigation is required (the current boundary is based on areal photos and geophysical results, indicating the waste disposal area).

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Vertical Boundary: Soil – surface soil 0-1 ft (potentially 2 intervals); subsurface soil 1-6 ft (or to water table); groundwater – mostly surficial, a few intermediate or deep (up to 60 ft); sediment – 0-6 inches.

The team had a brief discussion concerning sediment sampling depths. Mr. Fisher explained that vertical profiling of the ditches took place.

Mrs. Churchill noted that SPLP had not been discussed earlier. Mr. Fisher replied that typically they haven't been doing SPLP; if they were considering not putting on a lower permeability cover, then they might agree that SPLP should be done.

STEP 5: ANALYTIC APPROACH

Step 5 will be based on the presumptive remedy guidance and the Michigan regulations (see previous work at site 3).

Peggy stated that individual sampling results would be compared to the criteria.

Groundwater – individual sampling results will be compared the screening data
Soil – 95% UCL Tier I TRGs

Helen asked if MDEQ had a Tiered approach. Bob Merrill replied that they did for screening, but that they enforced the MDEQ standards.

Bob Fisher suggested a review of how things were addressed at Site 3.

Peggy stated that the Team still needed to come up with a sampling approach that provides a representative sample and a properly delineates the site.

Mr. Fisher explained that you delineate, generally when its near a boundary and/or appears that it may migrate; the way it worked out it was more than we originally thought, at Site 1 it was closer to 30. At Site 3 we may be in the 80-90 range because of some hotspots.

Mr. Fisher stated that a sampling plan would be proposed informally before it came across in a document.

4. Meeting Closeout

Action Item Review: See Attachment

Nancy informed the Team that the Basics of Partnering (BOP) Training would be June 11-12th in Tampa. Nancy will forward the information to the Team via email.

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MEETING REVIEW

<u>+ (pluses)</u>	<u>Δ (deltas)</u>
The room	Uncomfortable chairs
Good roundtable discussion	Off-schedule
Dinner/Lunch with team	Confusion concerning agenda
DQO discussion was interesting	Meeting room change
Level of preparation to speak about topics	
Good participation	
Accomplished goals	

Confirm meeting/conference call dates:

RAB Meeting: August 10th (PP for Site 4 public meeting)

Partnering Meeting: August 11-12th

Teleconference: June 9th & July 7th – 1pm CST

Nancy asked the Team whether or not they'd prefer to use the same meeting space.

TtNUS will need to review the budget and check for availability. Mr. Fisher will assist TtNUS.

Facilitator Feedback – Nancy Rouse:

Nancy provided facilitator feedback, noting the positive and open communication. Nancy noted a need to review/modify the ground rules and Team Charter.

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