

1
2 Naval Weapons Industrial Reserve Plant
3 Calverton, New York
4

5 Restoration Advisory Board
6 Regular Meeting
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8
9 7:00 P.M.
May 15, 2003

10 Riverhead Masonic Lodge
11 Riverhead, New York

12 P R E S E N T:

13 Joe Kaminski United States Navy
Naval Air Systems Command

14 Dave Brayack Tetra Tech NUS

15 Jim Colter Northern Division, NAVFAC

16 Frank Anastasi SCA Associates

17 RAB Members
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21
22

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CO-CHAIR KAMINSKI: The facility clock says five after seven, let's give everybody five extra minutes. Appreciate everybody that came early and on time. We have an interesting and informative meeting tonight. People who aren't here, can catch up with us when they get here.

(Brief recess).

CO-CHAIR KAMINSKI: I'm Joe Kaminski, from the Naval Air Systems Command, the owner of 340 acres still at Calverton that I have become responsible for getting rid of. There was a person before me who had a larger job than I do. My job really didn't take over from Ms. Hare, I have the role of pretty much the same title that I used to have, environmental engineer, although I've taken on some responsibilities, they've still left me with what I used to do, which is read what Jim put out. But I haven't had a chance to read it.

I have been dealing with fiscal matters, do I have enough money to support things and stuff like that, next year. But we are here to go over the environmental matters, with Restoration Advisory Board for Calverton. I welcome you and thank you for being here.

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2 First item on the agenda, is approval
3 of the minutes.

4 MR. COLTER: We sent them out with
5 the invite.

6 A MAN: Couple of typos.

7 A MAN: Looking over at previous
8 minutes, we had asked the Navy to include action
9 items in the minutes. In the last couple we don't
10 have that anymore, there was a section at the end of
11 the minutes where we summed up what the action items
12 that we identified during the meeting were. Could
13 we include that in future minutes not to correct
14 these minutes --

15 MR. BRAYACK: We didn't go over
16 action items per se at the last couple of meetings.
17 If there are action items at the end of the meeting,
18 then they'll get into the minutes as action items,
19 that might be part of the issue, that's an action
20 item.

21 A MAN: We never get to closure. If
22 we could track action items as well.

23 MR. BRAYACK: Put them on the future.

24 MR. KAMINSKI: While we are talking
25 during the meeting, who's keeping track of somebody

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who makes a promise.

MR. COLTER: Our stenographer, then we should be able to pick it up when we paraphrase the transcript.

CO-CHAIR KAMINSKI: Prior to our stenographer going through everything, can we summarize.

MR. BRAYACK: Tetra Tech will do that. Someone has to identify this is an action item and we'll identify it as an action item.

CO-CHAIR KAMINSKI: Along the way. And you'll write it down and at the end of the meeting, you'll help me summarize it.

Minutes approved, how do you do that? Move the minutes be approved?

A MAN: Motion.

CO-CHAIR KAMINSKI: Somebody second.

A MAN: Second.

CO-CHAIR KAMINSKI: The minutes are approved.

Next we'll go to the agenda, which you should have in front of you. We'll have the usual update of what's going on and the TAPP presentation and we'll have an exciting election to

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2 come up with the co-chair, since we have had some
3 turnover, I am part of the turnover, as well.

4 But before we get to the action
5 items, I want to do something that I promised last
6 time and didn't follow-up on, and if we don't make a
7 decision right now we might never make a decision,
8 and that's when we should meet and try and set up a
9 regular time.

10 However, let me back up two steps. I
11 also forgot that if you haven't signed in, would you
12 please sign in? Has everybody signed in today?
13 Everybody signed in. Okay.

14 Then as far as the time to meet,
15 we've got day issues, and we've got month issues.
16 And I'll tell you what my problem is. I have RAB's
17 in Texas on a regularly quarterly basis, September,
18 March and June being the quarter. It makes it hard
19 for me to be two places at once. What I've seen go
20 on here is we could probably meet three times a year
21 like what we have been doing, that would offset my
22 date problems and still give us the information that
23 we need.

24 Since that doesn't compute real nice,
25 because even when you do that, you fall in one of

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these same months, I have been sitting here scribbling before the meeting and thought that we could either meet in February-May, which is when we are meeting right now, and October. Or April, August and November.

I kind of like the April, August and November, because it -- means that we didn't have to meet in the winter, although August is a classic vacation month. And -- if August is a classic --

A MAN: April, August, I think we are okay with that.

CO-CHAIR KAMINSKI: April August and November. I was okay coming up in February, it was all right with me.

Then we turn to the days, since you were accommodating enough to schedule your meeting this week when he had some other meetings. I also have a Bethpage RAB which I'd like to do the same week that I come up here. The Bethpage RAB gets second choice. You guys get first choice. This is a great facility, and the best times this facility are available, are either the first or third Thursday. If you all like Thursday's which is what we have been doing. Keep it on Thursdays, the first

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2 or third Thursday is the best time to be here. We
3 could also do Wednesday's, it seems without too much
4 of a problem, because -- first and third Thursday
5 sound good? I need you to give me two choices so I
6 can go to the Bethpage people and let them pick.

7 First or third and I'll find out next
8 week when I meet with Bethpage and I'll put that in
9 the minutes. Thursday that this place is open and
10 three times a year that I mentioned.

11 I have an action item I have to
12 present to the Bethpage RAB. Their few choices.

13 MR. BRAYACK: Those choices are the
14 first or third Wednesday in August.

15 CO-CHAIR KAMINSKI: That's what it
16 says, of the three months that we talked about.

17 That's an action item that we can
18 summarize at the end of the meeting.

19 MR. COLTER: We are going to start
20 with this August.

21 CO-CHAIR KAMINSKI: Yeah. It's May
22 and we'll go to August and then we'll go to
23 November.

24 That's not bad because a lot of
25 things shut down in the winter as far as

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1
2 construction and the operation of the remediation
3 systems that we have here anyway. Some of them in
4 the past have not worked in the winter. There's not
5 a lot to report in the winter until we get to the
6 spring, although things are changing.

7 Now with that important, to me,
8 administrative issue settled, we'll move onto the
9 real meat of all this and let Jim take over for the
10 status of the work we are doing and I'll let you get
11 it right over to Frank. You don't have to give it
12 back to me.

13 MR. COLTER: I would also like to
14 thank everyone for coming tonight. As you know,
15 over the last several months, and reported at the
16 last RAB meeting, we are concentrating on two
17 remedial actions, one is the excavation of the Site
18 1 landfill and the second one is an installation of
19 an air sparge soil vapor extraction system, which is
20 at Site 7, the Northeast Pond Disposal.

21 Reported at the last RAB meeting, I
22 guess that was in October, we were well under way
23 with excavation of the landfill, we had a
24 presentation by Marlene Lindhardt from Foster
25 Wheeler back then on the status of where we were.

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Over the winter it was a pretty harsh winter up here, since then, as a result we shut down for several months mainly because of worker safety. We were only out there 20 minutes at a time over an hour, because of the cold and things and we weren't getting much production so we decided to shut down for the winter and right at that same time, we also, based on the work that Foster Wheeler had conducted, realized that -- our calculations for volume are a little bit off. And as a result, we were going to run out of money around the winter time frame so the shut down was advantageous to us.

Over the winter, we tried to procure with the fiscal year 2003 budget additional money to continue to work and we had to do some rough estimates of what was left out there and Foster Wheeler did that. So the money issue is resolved. There is a Navy policy issue that also crept up, whereas we are now bound by Congress to have 40 percent of our work, of our environmental contracts, have to be awarded to a small business. So in order to -- without getting into many details, it was a mid-year policy that we had to meet the goals by the end of the fiscal year. So instead of having a

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whole year to meet the goal, we had six months. So because this project was fairly large in what we had left to do, the decision was made to take the main portion of that job, being the transportation and disposal, and sub that out to a small business.

We took that portion of the work away from Foster Wheeler and we awarded it to a small business firm that we procured. Keeping Foster Wheeler for the excavation and load out and overall site management of the project.

That posed a few contractual problems. Again we had all winter, January, February and March, to basically do that.

We are back up and running as of last week, week and a half ago, we got trucks to show up and those of you that live in the area are probably going to see an increase in activity of the trucks, and the fundings in place and we think it's enough to take us to the end and we are anticipating about a four month, four months from today, roughly, to complete the project.

I'd like to introduce to my right Bob Olewinski, he's the new project manager who took over for Marlene, and also at the same time, I guess

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1 many of you might have heard Foster Wheeler
2 Environmental Corporation was purchased by Tetra
3 Tech. So you may hear him refer to him, to his
4 Company as Tetra Tech FW, the "FW" is Foster
5 Wheeler.
6

7 Bob is going to give us a status on
8 where we are at today since the last RAB meeting.
9 I'll turn it over to Bob.

10 MR. OLEWINSKI: As Jim had mentioned
11 we started mobilization at the site back in early
12 April of this year and we have been proceeding with
13 the excavation activities. I'll go through some of
14 these slides quickly because you probably previously
15 have seen them. Basically, the size of the landfill
16 is basically 400 by 200 feet. The one difference
17 that we noticed in the excavation activities as Jim
18 mentioned, the quantity differences is we are
19 finding contamination. The original estimate was to
20 a depth of about eight feet. We are finding it to a
21 depth of about 14 feet right now. So that pretty
22 much has accounted for the differences in quantities
23 that we are seeing.

24 We are still seeing the same type of
25 material, nothing has changed, it's still

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1 non-hazardous soil that we are taking out. There is
2 construction debris mixed in. We've identified
3 several areas around the old landfill that are
4 archaeological areas, cultural resource areas that
5 we've identified and that we are, we identified and
6 we're staying away from.

8 Just a picture of the map again. As
9 you see the Northeast Pond is listed in there.
10 Right now, we are going to the excavation a little
11 bit more. One of the things we are in the process
12 of doing right now, is coming up with a restoration
13 plan for the area around the pond and also for the
14 excavation that we are taking out and the two
15 activities being the restoration of the pond and the
16 area where the landfills were, or are going to be,
17 conducted kind of hand-in-hand, to make sure that
18 we've taken into account the pond area.

19 We'll go through some of these
20 pictures. These are pre-excavation shots which you
21 may have seen previously?

22 That's the summary of what we are
23 averaging -- we are going to have 21 thousand cubic
24 yards of fill, 315 yards of sediment and revegetate
25 the areas.

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Couple of things here, the tiger salamander, which was a concern. We've conducted surveys in the months of March and April, which according to the biologist I work with, are primary breeding seasons for the tiger salamander. In this pond area, I can tell you we have not seen any evidence of the tiger salamander. We've seen a lot of evidence of the spotted salamander, but we haven't seen any evidence of the tiger salamander in the area. As I mentioned, the cultural resources, we have identified areas around the pond area where we have identified cultural resources.

MR. COLTER: If I can interrupt real quick about the salamander survey. That was the subject of a previous RAB meeting when we were kicking this project off over a year ago. And as Bob said, the month of March and April are prime breeding times and that's when we did our survey to try to identify them. Of course no one anticipated that we would be out here in the following breeding season of this March April time frame but we were. So Foster Wheeler sent their ecological and biological people out there to rescreen the area prior to mobilization. So we basically followed the

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1 same protocols that we submitted to the state
2 previously, we just followed those again before we
3 mobilized out here for the second season.

4 I'm not anticipating doing that a
5 third time, but you never know.

6 MR. OLEWINSKI: That's just one of
7 the points that was identified, an arrowhead that
8 was identified in one of the areas, as a cultural
9 resource.

10 Just an example of some of the
11 concrete that we are pulling out. Again, I think
12 you may have seen some of these pictures at previous
13 meetings, the scrap metal tends to be a lot of metal
14 cages that we are finding in the area. That
15 material is all being segregated and taken in for
16 recycling.

17 Coming up next, we have three
18 pictures of the load-out that's going on, and the
19 truck scale.

20 The most recent status as of May
21 13th. As I mentioned we have not seen any
22 indication of tiger salamanders in the area. We've
23 cleared all the areas for archaeological artifacts.
24 Again, all the material right now is nonhazardous.
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2 Based on the analytical that we are doing. As of
3 Tuesday, I'm going to go in tonnage rather than
4 cubic yards since we are doing everything by scale
5 on-site, we've removed approximately 37,500 tons
6 have been taken off site. The break-out, 37
7 thousand 200 tons of soil and sediment. A hundred
8 tons of concrete is being taken out for recycling.
9 200 tons of scrap metal is being taken out for
10 recycling.

11 These are more recent pictures that
12 we have. What you're looking at now is the western
13 and southern part of the site headed toward the pond
14 area. The area roughly in the middle of the picture
15 to the left of the excavator, has been excavated and
16 removed. That whole area is clean right now.

17 Another view, kind of from a
18 different angle looking down toward the south toward
19 the pond, one of the things you'll notice, the pond
20 has been cleaned out. It's been clean -- we are
21 still working on some areas, but we removed debris
22 and sediment from the pond.

23 MR. COLTER: If you'll recall one of
24 the first pictures in this presentation, showed a
25 body of water about three foot wide. Now you can

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2 see what it's turned into. What we found and
3 another reason for some of the volume estimates
4 going up, is we had the assumption that the -- that
5 the waste material was not in the saturated zone in
6 the water. Actually there was a zone of natural
7 soil at some point above the pond, or the
8 groundwater table. Then the landfill went up from
9 there. What we found was the exact opposite. We
10 found fill or waste material in the saturated zone.
11 From us digging that waste out, that's the result.

12 A MAN: So they were dumping into the
13 edge of the pond.

14 MR. COLTER: Looks like it.

15 MR. OLEWINSKI: This is one -- this
16 is a picture -- this is an area probably on the west
17 side of the site. I mentioned the depth of about 14
18 feet. This is an excavation that we have, still in
19 the process of going on and being cleaned out. But
20 it looks as if, we'll work our way back up the road
21 but we think at this point, that the area, the
22 deepest part is toward the left almost center of the
23 picture that we may have, actually are at a point of
24 finding the bottom of the landfill at this point.
25 As you can see, the excavator is still working in

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2 the pond area. But we are still working in
3 the -- the roadway to the east, which is closer to
4 the top of the picture. That area again has been
5 cleaned out. And again we are heading our way
6 pretty much back west at this point. Digging up the
7 road that we are using.

8 A MAN: What is the depth of the pond
9 itself, roughly?

10 MR. OLEWINSKI: It varies. I mean,
11 as you get -- parts of the edges, it's shallow,
12 about two or three feet. There's a bog area that's
13 out in the middle. We have gotten measurements down
14 in that bog area as deep as I believe 10 to 12 feet,
15 but we have not hit bottom on it yet. So it's
16 fairly deep in some of the areas.

17 A MAN: Thank you.

18 MR. OLEWINSKI: At this point, we are
19 hoping for the excavation being completed by the end
20 of June. Again, that is somewhat dependent on the
21 quantity of material that's found on the site. What
22 we are doing right now, is we are to keep ahead of
23 the subcontractor who's doing the removal. We have
24 several stockpiles on site. We have somewhere in
25 the order right now, of 4,000 to 6,000 yards of

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material that's stockpiled up on top that we sampled to make sure it's ready to go. After the excavation is done, they'll probably be a lag to get the remaining material out of there.

Right now, what we are doing, we are shooting for wetland planning by sometime in early September. We're talking to the biologist, July and August is not a good time to lay seed or any kind of vegetation down and have it take. We are shooting right now for more headed toward the late summer, early fall period, so whatever we do plant in the area will take with the weather. So that's a time frame that we have right now. The close-out report probably will be completed, right now probably January of 2004.

MR. COLTER: Any questions on Site 1 activity.

A MAN: As far as the excavation goes, what is the criteria to know that you're at the bottom of the landfill.

MR. OLEWINSKI; we do post excavation sampling. We also do visual inspection based on debris. If we see debris in the area, we'll remove the debris and continue with the excavation. If no

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debris is present, we'll pull the post-debris samples and compare them with the values, with the ROD in New York. We do post excavation sampling before we see no more debris.

MR. COLTER: Soil color is an indicator.

MR. OLEWINSKI: Yes, they have used that also, the color of soil also. Toward the bottom right now what we are seeing in that area is a lot of sand, is what we are seeing. It's hard to tell from the picture, but there was some debris on the bottom, but there was pretty much a lot of white sand on the bottom also, which gives us an indication, once the debris is removed we think we are at the bottom of the landfill in that area.

A MAN: The truck schedule, is it just a daytime operation, I assume, and how many trucks per day.

MR. OLEWINSKI: What we are doing right now, we run Monday through Thursday six in the morning to four in the afternoon. Trucks are -- we are attempting to get 50 trucks a day, we are running somewhere between 30 and 50. The reason we work, the longer work hours for the four days, is

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2 the disposal facilities that we are using are
3 actually in New Jersey. So in order for us to try
4 to get to do two-round trips with the trucks, it's
5 easier to get them loaded early in the morning and
6 out by the end of the day.

7 MR. COLTER: A couple more months.

8 A MAN: What are the disposal
9 facilities in New Jersey.

10 MR. OLEWINSKI: We started using a New
11 Jersey facility today. It is a clean earth
12 facility. We are also using a facility in
13 Philadelphia. They're both clean earth facilities.

14 MR. COLTER: One of the reasons that
15 we had trouble getting the project back up and
16 running was the facility we were using last year was
17 a facility in Brooklyn called Pennsylvania Avenue
18 Landfill. And the permit for that landfill did not
19 allow trucks going through Brooklyn. So we had to
20 off-load our materials in Bayonne, New Jersey in a
21 facility associated with the landfill and then it
22 would be barged over.

23 When we reprocured for the disposal,
24 we started off at the same facility, and right at
25 the time we were going to begin reloading, they

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2 called us up and said we can't take any more
3 material. So that kind of threw a wrench in the
4 thing. So we had to scramble and what we have been
5 doing since then is we found these latest two
6 facilities that Bob just mentioned and now we are
7 back up and running. After getting the contracts
8 with those facilities, now we are back up and
9 running. So we had a little delay there. Any
10 other questions on Site 1?

11 The former fuel depot is the other
12 area where we are doing remedial action. As per the
13 previous RAB meetings the decision was made to clean
14 up contaminated groundwater with fuel components and
15 the soil interface also contaminated with petroleum
16 components using an air sparging and soil vapor
17 extraction system.

18 At the last RAB meeting, we were just
19 getting our plans together and a work plan together
20 to collect what we call pre-design field samples
21 that are used to base a design on the results of
22 those field analyses. And where we are at now, we
23 are going to construct a pilot study here pretty
24 soon to actually get various parameters associated
25 with the design. Bob, again is involved in that

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2 project and I'll let him bring us up to speed on
3 where we are at with that.

4 MR. OLEWINSKI: Site 7, where we
5 stand right now, is back at late April, the week
6 following the blizzard we had some people go out and
7 do a predesign investigation, utilizing soil borings
8 and groundwater monitoring. We gathered data that
9 we are using in designing the system.

10 Within the next week and a half or
11 so, I hope to have the Navy, the pilot plan, the
12 work plan for the pilot test, which will go on for a
13 period of about, roughly about three months, to test
14 the system.

15 We are in a stage right now where we
16 are completing the pilot test work plan but we are
17 also in the design mode. We've come up with some
18 conceptual designs right now, maybe a little more
19 than conceptual, building and piping and what the
20 system will look like.

21 We are trying to tweak some of the
22 designs to get them to where they need to be. To
23 get the pilot test started.

24 What I want to do, we'll go through
25 them to probably the last one which gets some of the

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1
2 better idea of some of the dates right now.

3 This is kind of a schedule, this is
4 where I wanted to go through it a little bit. As I
5 mentioned, ending the week of the 28th, the
6 predesign investigation was completed.

7 Right now, the work plan we are
8 hoping to have to the Navy by May 23d. Some of
9 these dates are actual completion dates. The
10 building construction for the pilot test, we are
11 hoping to perform in the July-August time frame.
12 Right now, so what we are shooting for, we are
13 hoping to have the pilot -- the pilot system
14 completely installed by early October, by October
15 3d. And soon thereafter we hope to do -- run the
16 tests for the three-month period.

17 We really don't have much information
18 other than that. But the next meeting hopefully
19 will be a little further along and the pilot systems
20 will be in and we'll have construction activities
21 moving by that time in the field, hopefully.

22 A MAN: What were the results of the
23 field sampling program, any surprises?

24 MR. OLEWINSKI: No, no. We are not
25 seeing anything that wasn't anticipated. It looks

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2 pretty much like what was some of the previous
3 investigations that were found. So we are not
4 seeing anything.

5 A MAN: The lateral extent was the
6 same, depth was pretty much the same.

7 MR. OLEWINSKI: Yeah, yes.

8 A MAN: Is the stuff going to be
9 volatile enough to air sparge.

10 MR. OLEWINSKI: Yeah, we believe it
11 will be.

12 A MAN: If it isn't, you go to -- air
13 or what.

14 MR. OLEWINSKI: At that point, we are
15 kind of in a mode right now we are still in the
16 design mode, so at this point I would rather wait to
17 work some of these things out at this point.

18 MR. BRAYACK: It is also more bio
19 than just straight sparging. It's fuel only.

20 MR. COLTER: That's one of the
21 reasons we put the pilot scale in before we go full
22 scale, is to see, get sparge distances and also see
23 if the system is working as we had hoped. Get that
24 data and base that data and go into a full scale.
25 So if all goes well, when we run the pilot at the

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2 end of this calendar year, we'll take the January,
3 February, March time frame to develop the full scale
4 work plan, getting -- barring any unforeseen
5 nonconcurrences, we should be out there in next
6 year's construction season, April-May the full
7 scale. And then operate it. Man it.

8 CO-CHAIR KAMINSKI: It's going to
9 look something like the firefighting area?

10 MR. COLTER: Maybe a little neater.

11 Anymore questions on the Site 7
12 status?

13 MR. ANASTASI: Is that by any chance
14 close to 6-A?

15 MR. COLTER: Site 7? No.

16 MR. ANASTASI: Too bad.

17 MR. COLTER: Moving on, you all had
18 met Frank Anastasi, from SCA Associates. Most of
19 you met him at the last RAB meeting. Since then he
20 has been continuing his review as per the contract
21 with the RAB members here, to review the Navy's site
22 6-A, 10-B, and Southern Area remedial investigation
23 report. Frank's review is done and now he is going
24 to present us with some results.

25 MR. ANASTASI: I have copies of what

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I'm going to go over. If anybody wants to have them now, while we go through the thing to make notes on, I don't think I have enough for everybody but you know, certain people should get one.

MR. COLTER: All these presentations will be made part of the minutes that we send out, as well.

MR. ANASTASI: What I've done is look over the Phase 2 RI study of Sites 6-A and 10-B and the Southern Area, as well as some previous work that led up to it and the data that was provided in something called a site data report that I've also had and looked through.

I'm Frank Anastasi, I'm a hydrogeologist, independent consultant and your technical advisor.

I want to start out quickly. I think you all have been briefed along the way. In case someone wasn't here or didn't understand. Part of what I'm supposed to do is help you understand what went on. That's what this initial part is, not necessarily what I think about it.

To begin with, with any remedial investigation, what you're trying to do is, find out

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1
2 what the problem is, how big is it or how small is
3 it, how bad is it, or not bad, and where is it?

4 What's the nature and extent is a term in the
5 business that we use all the time.

6 What's the problem? If you do find
7 these things, does it exceed regulatory cleanup
8 standards which would drive you to do something like
9 what he's talking about, soil vapor extraction, or
10 remediation. If there's risk, you go through a risk
11 assessment. If the risk is too high, if it's
12 unacceptable, that would drive you to do something
13 to mitigate the contamination that you found.

14 In this case, there are two on-site
15 areas that were investigated. The Fuel Calibration
16 Test Area, which really is two sites where they used
17 to test and fuel jet engines and calibrate the fuel
18 systems, one's she an old concrete pad that's no
19 longer there, it's just a grassy field. The other
20 is still a concrete pad. They did activities along
21 the concrete apron. There had been a shed and fuel
22 pipeline, they're no longer there.

23 The Engine Test House is southeast of
24 there, in the general direction of interest, as
25 you'll see. Here the jet engines were tested. I'm

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not sure what they tested, but they fueled them.

There had been at least an underground tank, surface tanks, fuel pipelines, you could imagine, to supply these engines that had been brought in, mounted on a stand, and tested.

The contaminants and the sources at these areas, are spilled fuel and spilled solvent. Chlorinated solvents. Leaks from the pipelines, leaks from the tanks. And maybe in the old days, when the guys finished up, they might have dumped out a pint of solvent or something at the end of the day. You don't know. So you might have had surface discharge, you could have had underground leaks or leaks and spills at the surface.

A MAN: Do you know what the solvent was being used for.

MR. ANASTASI: Any kind of engine activity, maintenance activity, performed by mechanics, testers, always have solvents around. It's not uncommon anywhere, that either fabrication or testing of any kind of engines, or machine parts or machining, solvents are a known part industrial activities. You all may know more about it than I do. In this particular case, I didn't see a

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reference to solvent storage area or a satellite accumulation for solvents or anything. It's incidental use of solvents that might have occurred.

MR. BRAYACK: What we were told by former Grumman people, is they would use solvents to clean up fuel spills and leaks, to clean up the spill, off the plane, not the ground or the concrete.

MR. ANASTASI: That's two, petroleum hydrocarbons, which are volatile organic compounds, or VOCs, and also chlorinated hydrocarbons, from the solvents. The petroleum related ones we can talk about, the common term is BTEX, benzene, toluene, ethylene, xylene, are the ones that give us enough problems to be the ones we track.

Chlorinated hydrocarbons have long names trichloroethane and dichloroethane. The fewer numbers and the further down the chain you get, these things break down chemically, into vinyl chloride, is at the end of degradation. So it starts at 1,1,1 trichloroethane. When you take chlorine out of the molecules, they change in number and name.

A MAN: These were the products that

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were actually used according to the records.

MR. ANASTASI: No, TCA was the one that was maybe trichloroethane? I don't know for sure.

MR. BRAYACK: I would know no reason why they would use the DCA or the DCE.

DCA and DCE are common degradation products of 1,1,1 trichloroethane.

MR. ANASTASI: If there were other kind of chemicals, such as pesticides, sometimes there's trace contamination of these offshoot chlorinated volatiles. Probably, it was, it originated at the top of the chain at 1,1,1 trichloroethane.

There's also freon, that's familiar to you for use in air conditioners. It has a long chemical name, related to these. Freon has been detected. I won't mention freon just to keep things simple. There's no difference in where it is or the severity of it over the other chlorinated VOCs. I'm not mentioning it. It's one of the contaminants, too. In my interpretation, its being there doesn't mean one thing or the other. These things behave differently and you'll see that later on, the

PROCEEDINGS

1
2 petroleum versus chlorinated solvents, contaminants
3 in Southern Area is further toward the southeast.
4 If you're familiar with the site, we have maps
5 around but the road that runs Grumman Boulevard then
6 it turns into Swan Pond Road and River Road to the
7 south of the facility, on-site to the north of that
8 road in the fenced area, there's some ponds that
9 receive run-off between the Engine Test Area, and
10 further to the north, the Fuel Calibration Test
11 Area. So there's on-site Southern Area quote
12 unquote.

13 Then it turned out investigations
14 went further and further south and southeast,
15 further off site. The Southern Area includes
16 on-site and off-site areas. The areas that was
17 investigated, there's a plot of land, that backs up
18 to a pond of the Peconic River Sportsmen's Club, all
19 the way down to the Peconic River, both north and
20 south. The RI investigated groundwater conditions
21 north and south of that river.

22 Then also on Connecticut Avenue, a
23 road that runs north and south further to the south
24 of that property.

25 The contaminated area, the Southern

PROCEEDINGS

Area's contaminated areas, its sources, in this case, what it looks like happened is there's a strong probability that the releases that occurred up at the site at the test area, didn't necessarily flow in the groundwater and underground all the way down mile, 1.2 miles southeast with the groundwater flow direction towards the river under these off-site properties. What the Navy and the contractors think happened, is that for a period of time in the '70s, I think it was '75 -- no, it was '87 to '94 or something, petroleum was being cleaned up and pumped, and contaminated groundwater, at Site 6-A at the Fuel Calibration Area. They were pumping the petroleum in the groundwater, they were putting it in an oil/water separator. The oil or fuel was being collected and taken care of off-site. The water was discharged to the drainage ditch there. The drainage ditches flow, and empty into these ponds that are at the southeast corner of the site. As the water drained it had dissolved contaminants in it. It might have seeped into the soil. As it drained. Once it got to the pond, contaminants might have seeped out into the ponds. The theory is it hopscotched. So that's a theory that might

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2 explain why the areas between the on-site and
3 off-site areas don't have these contaminants. So
4 that's one theory.

5 It also -- there may have been not
6 just one release of these things but maybe sporadic
7 releases over time, a spill in '75, in '78, and '85.
8 So there may be discrete little areas of
9 contaminated groundwater that are moving, and that
10 also might explain why you might find it
11 downgradient further. There are multiple
12 explanations, and I don't think we know enough to
13 say for sure. But there's good evidence, with the
14 over land transport and the deposits in the pond
15 could have helped the contamination get further than
16 it would have otherwise. That's an unfortunate
17 event that we are having to deal with.

18 The RI activities took place over
19 phases, in two times. In 1997 this work was done
20 primarily on-site. And the methods and techniques
21 were state of the art at that time. You get a lot
22 of the data is single bore hole, the borings were
23 taken and at different depths water was collected
24 and precautions were taken to make sure the water
25 sampled at 100 feet, represented conditions at 100

PROCEEDINGS

1 feet, not throughout the bore hole. So you have
2 what are called discrete groundwater samples at
3 different depths. These borings went down to 135
4 feet below ground. Two permanent shallow monitoring
5 wells were built on-site at 6-A.
6

7 We looked at the data, and decided to
8 do more. We went out in 2000 and did a supplemental
9 groundwater investigation of the RI, about the time
10 the Navy became aware of county sampling that
11 indicated chlorinated solvents in the groundwater
12 further to the south, off the property boundary to
13 the southeast. That's why the area study moved
14 down. It included two surface water samples from
15 the river and no volatile organic compounds were
16 detected there. It also included sampling for
17 monitored natural attenuation information. What
18 this is, you hear people talk about MNA. It means
19 whatever nature has done, and how nature might have
20 changed, based on the contaminant release has taken
21 care of things. It actually works very well with
22 fuel-related volatile organics. It just so happens
23 that microbes, bacteria in the ground, naturally can
24 learn to love petroleum hydrocarbons and they thrive
25 on them over time once they've been exposed to them.

PROCEEDINGS

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2 That keeps petroleum hydrocarbon plumes from
3 expanding. We see that at most straightforward
4 petroleum released sites, typically where the
5 conditions are favorable for that kind of thing to
6 happen. Sometimes you can help them a little,
7 fertilize them a little. But sometimes you can
8 introduce other bacteria. Often times, the
9 petroleum things are dealt with much easier. So the
10 contractor did some activity and sampling of certain
11 wells to see if in fact this was going on. You
12 don't just sample chemical concentration, you sample
13 dissolved oxygen and reaction of bugs eating and
14 degrading the petroleum hydrocarbon. There was data
15 there that was collected, and that was useful
16 information.

17 In terms of the results, basically
18 what the RI did was confirm the problems that we
19 thought we had. There was a smaller area of
20 relatively immobile, on this, relatively immobile
21 groundwater contaminated by petroleum hydrocarbons,
22 That's been out there, that they recovered in the
23 past, it's still there. And there's the
24 chlorinated solvent-related VOCs both on-site and
25 off-site.

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Of real significance here that was really more than confirmed but I guess more like found out for the first time, but everyone's confident with the data, that a good distance away it's about 1.2 miles to the southeast, the chlorinated volatiles are there in the groundwater, and they're at levels that exceed what the -- what would be apparently the regulatory standards in this case.

That's not a final decision but that's what regulators tend to tell me, until you have something else that -- what you would apply.

A MAN: We have a well that exceeded drinking water standards. It's clear that it's related to the plume coming off the base.

MR. ANASTASI: It is not a risk-based calculated standard for this site yet. You're not at that stage. Right now the way it stands, the groundwater's contaminated to a degree significantly above what the standards appear to be.

A MAN: Above drinking water standards.

MR. ANASTASI: Above drinking water standards.

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In this case, you know, the levels are in the hundreds. The standard, for lack of a better standard, is five parts per billion.

They're in the hundreds, down in this farthest off-gradient area, they're in the tens to hundreds. Off-site there they're several thousand. So it is a significantly different level of severity. It's still severe enough to require some kind of mitigation down there.

Some more conclusions here's something I want to change scratch out stable in that first line. The petroleum VOCs are localized. That word should be immobile. They're not moving very far because that biologic activity is eating them up as they move on. It's not moving very far. It's not off-site. The chlorinated VOCs are 1.2 miles downgradient. And they're in the deep unit, down as far as 200 feet on the site. They have been found as far as 95 feet off the site. But it doesn't mean they're not at 200 feet off the site. Because we haven't looked at the depth in these far off, off-site areas yet.

They're more persistent and resist degradation. The chlorinated VOCs can degrade

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2 biologically in an air rich environment with oxygen,
3 but anaerobically, in the groundwater without a lot
4 of oxygen, they don't do well at all. That helps
5 them remain persistent and move downgradient in the
6 groundwater.

7 The RI concluded the chlorinated VOCs
8 will be discharging in the Peconic River, there's
9 calculations and modeling that predicts that. The
10 groundwater sampling data downgradient near the
11 river predicts that. What the modeling predicts
12 later on though is that the level and the impact
13 level of the contaminants entering the river and the
14 impact on the river are below acceptable levels or
15 negligible or nonexistent because of dilution and
16 because the concentration will be so slow. Again,
17 that's a prediction from a model.

18 In terms of risks, a health risk
19 assessment was done. As a hypothetical, in the
20 future, if somebody lived at this site and drank the
21 groundwater, and got exposed to the petroleum
22 contamination in the soils, there's some other
23 compound, some semi-volatile organics that happen to
24 be very carcinogenic. With petroleum spills, if the
25 contaminants are high, you have, they are the ones

PROCEEDINGS

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2 that end up having that risk. If somebody lived
3 there and was exposed to that, you have an
4 unacceptable risk.

5 A MAN: What about the off-site
6 that's contaminated. What about people living
7 there.

8 MR. ANASTASI: The risk assessment
9 didn't really address that issue. But the
10 groundwater consumption, from the levels that are
11 where they are that are above the standards that are
12 set, which are supposedly health-based standards,
13 the inference is that there's a risk that exceeds an
14 acceptable level. But you can't really say that
15 because it's -- two separate things. When you do a
16 risk assessment, you have to calculate, you have to
17 look at an exposure and a dose and a period of time,
18 how contaminated is it? And you presume someone's
19 going to be drinking so many gallons a day for so
20 many years. And you go through all the calculations
21 and you get a risk level. The risk may or may not
22 be above or below what is quote unquote acceptable.
23 But the level is definitely higher than what the
24 state is saying is an acceptable level for drinking
25 water, period, without the risk assessment,

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particular to the site and the person's actual exposure.

So, you know, on the face of it, what you have here is unacceptably contaminated groundwater at off-site areas where people could drink. That's what the Navy wants to move toward doing a feasibility study to find out what to do about this.

The ecological risks, the RI says there was no sensitive receptors so there is no ecological assessment. I don't know any more than that.

But tonight, talking about the tiger salamander, I don't know if it is a sensitive receptor in the TCA. I imagine you all looked into that. But ecological risks - risks to bugs and bunnies wasn't looked at. It doesn't mean there wasn't any, it doesn't mean there is any. It means there doesn't appear to be any, because there's no sensitive receptor.

Freight and transport modeling predicted calculation mathematical modeling. There's a lot of stuff there.

There's a theory that the solvents

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2 were released in 1978, and fuel was released in
3 1975, maybe as late as '80. For the solvents,
4 putting that into these models and figuring out with
5 the groundwater flow velocities, and the travel
6 velocity of the contaminants, releases being about
7 that time frame fit with where the contaminants are
8 found and what concentrations they are. Also some
9 of the degradation the way trichloroethane breaks
10 down to dichloroethane, breaks down to vinyl
11 chloride those things fit in somewhat of a
12 consistent pattern to say that there was -- the
13 releases were such as they were. But the thing
14 that's important to think is that up to 20 or 30
15 years later, you still have 90 percent of the mass
16 of contaminants of the volatiles from the site,
17 still there in the groundwater. They're not going
18 away, but you're down to half of the petroleum
19 contaminants.

20 What do I think about all of this?
21 First of all, I told you all last time in January,
22 the methods that the contractor used and the
23 analyses, the chemical analyses, the kind of things
24 they looked for, the way they did it. Those are
25 standard state of the art practice in time. Today

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2 you might find a better way to do it. If you had
3 more money, you might be able to take a different
4 chemical analysis routine. But I don't think it
5 would change any of the findings, I don't think any
6 of the things, any problem would be any kind of
7 significance to think that we don't have these
8 problems that we seem to know we have.

9 I think the contamination is as
10 depicted in the RI. There's a map. I have the map
11 if anyone wants to see it later, it is an irregular
12 wedge shape, moving to the southeast from these
13 areas, and there's areas where we know there's
14 contamination and they hatched areas in between
15 where contamination may be. Those are reasonable
16 assumptions.

17 I think, though, that -- also the
18 theories about the petroleum stuff breaking down and
19 chlorinated solvents and why they have moved and why
20 they haven't, those things are valid. They're
21 typical.

22 But there's more to it. It's not a
23 surprise to the contractors, we have been discussing
24 it and we have been thinking about it. Mr. Gunther
25 mentioned the other day. Going back, you all talked

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2 about this in the past. There's uncertainty in the
3 deep zone on-site at 6-A, the Fuel Calibration Area,
4 there was a boring down to 200 feet and there's
5 significant contamination down at 165, 180 and 200
6 feet on the site.

7 Further downgradient and other
8 places, even off-site, 90 feet is the deepest
9 boring, there's still chlorinated solvents a mile
10 downgradient at this 90 feet. It's not 200 feet,
11 but there's uncertainty where else it might be in
12 the deep zone, what's the geology like in the deep
13 zone? If it's significantly different or there's
14 pathways that these contaminants can be moving that
15 we don't know about. We don't know, we are not
16 monitoring. That is a data gap, one thing.

17 Also the groundwater flow path. What
18 you have out here is a glacial outwash, the surface
19 soil's down at 50, 100, 150 feet, 200 feet. The
20 sands and the gravel from the glacier are at
21 different depths. Sometimes you have clay sometimes
22 you don't. Then you have different sedimentary
23 components at the Magothy aquifer part of the
24 formation. It's definitely a different unit. The
25 Magothy is your primary drinking water aquifer out

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1 here. There's widespread and growing reliance on it
2 out here, as more and more people come out and more
3 houses are built.
4

5 At the 200 foot depth on-site whether
6 it is or is not the Magothy, is a question in all of
7 our minds, whether -- there's definite hydraulic
8 separation between the Magothy and the smaller
9 glacial aquifer is uncertain. It is significant in
10 doing the transport modeling, trying to figure out
11 what the problem is, where do you deal with it, you
12 look at the end point of contaminant exposure. If
13 the groundwater is flowing and discharging into the
14 Peconic River, which is shallow groundwater, that's
15 as far as this contamination is going to go in the
16 shallow zone. Investigation on both sides of river,
17 taking water level measurements, water flows towards
18 the river in shallow sediment. That's not
19 surprising, it's stuff we learn in school. It's the
20 way it should be. It's nice when you find in the
21 field, nature is behaving.

22 But if it's in the deep zone, in the
23 Magothy, it goes further and in different directions
24 over time. It's not into the shallow groundwater in
25 the Peconic. That again is something that you need

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2 to know. If you want to try and fix the problem and
3 you put in a fix for something but then there's
4 another problem that's different that you didn't
5 know about, you're not going to be solving your
6 original problem.

7 Again, the chlorinated solvents, the
8 VOCs off-site, is the significant problem. Petroleum
9 on-site is not a significant problem in terms of how
10 you deal with it, because you control the site,
11 petroleum is easier to deal with, in fact they are
12 el --

13 A WOMAN: Can I ask you a question
14 about that. There's a golf course on that site. If
15 they're irrigating and that water's contaminated,
16 how does that affect the people walking on that golf
17 course.

18 MR. ANASTASI: To answer your
19 question, really accurately, you'd have to do an RI
20 assessment. You have to know if there's
21 contamination in the groundwater. We don't know
22 that. You have to know how much dispersed into the
23 air it had been. All these things would be
24 theoretical. You monitor how often a golfer plays ,
25 or maintenance man works there.

PROCEEDINGS

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2 A MAN: Those irrigation wells have
3 been sampled and they were not contaminated but that
4 was then.

5 A MAN: When was that, Sy?

6 A MAN: Two years ago we did it.

7 MR. ANASTASI: Surface water flows
8 into the pond and it leaks into the ground and that
9 affects groundwater flow. So there's a complex, if
10 you studied it closely, all the groundwater isn't
11 moving straight southeast. There's new answers.
12 Whether there's gravel or sand or clay, water will
13 move where there's less resistance. So it's going
14 to be moving in preferential pathways down there.
15 Generally the flow direction is southeast. Not
16 south towards the golf course, southeast it kind of
17 misses the golf --

18 MS. MILOSKI: Also you said
19 Connecticut Avenue, Connecticut Avenue is going
20 completely south.

21 MR. ANASTASI: It runs north south up
22 the River Road.

23 All I said was that sampling was
24 along there. Not that there was contamination.
25 I'm sorry, I misspoke. I'm glad you asked that

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question.

A MAN: Do you have any opinion about the source area, why it was found at the depth that it was.

MR. ANASTASI: The typical precautions were taken. When they drilled, they were trying to prevent bringing the contamination down. And it appears that that was okay. What I think happened is -- this's another thing. I've learned their on-site supply wells that were contaminated, there was a lot of pumping when this place operated. I don't know how deep those wells were, like how did they affect the groundwater flow?

A MAN: They were quite a distance from this area.

MR. ANASTASI: I don't know how far, that's something I'd like to look into. If you look at the cross-sections that are presented in the report, it does tend to show kind of simplified layers of sands and clays. There are places where they come and they go, but in doing some other research, Brookhaven has done a lot of drilling and work, they have compiled a detailed geography based on where sand, gravel and clays are and where the

PROCEEDINGS

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2 Magothy is. It is quite a varied picture. When we
3 write reports and draw pictures, generally we try to
4 simplify things to make sense out of them. Also you
5 can only have so much data. If you haven't drilled
6 a lot of places and sampled very closely, you don't
7 have a lot of confidence. So you make decisions
8 where clays or sand might be with less accuracy than
9 if you had more data. So there could definitely be
10 places where there's not a confining zone and spills
11 and solvents would have gone on down. And I think
12 that's typical and that's definitely a possibility.

13 I think having it to 90 feet deep
14 downgradient that far, you know, so soon after they
15 drilled deep on the site, that's another factor -- I
16 don't think they caused it. So I think it was a
17 natural thing and I think it is probably solvent
18 contaminants that moved on down through the soil
19 column all the way.

20 CO-CHAIR KAMINSKI: One and a half
21 times.

22 MR. ANASTASI: There's different
23 things, depending on what their carriers -- solvents
24 are heavier and they do sink. Significantly so.
25 And the other thing is, silts and clays, these

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2 contaminants go into these kind of units and do not
3 come out easily. They'll wash out of sand easier
4 than they'll go out of silt and clay. You could
5 have a plot of soil go down to 80 feet, hit clay and
6 get saturated and stuck in the clay, and it could be
7 releasing. As it is moved down through the clay, it
8 could be releasing between the groundwater below and
9 above it. That's the challenge in remediation,
10 whether you have a lot of contaminant associated
11 into these units? If they're tighter grained,
12 tighter grained, less groundwater flows through it.
13 Also because of the chemical and molecular make-up
14 of the clay, they hold this stuff and give it up
15 grudgingly. It can be difficult to deal with over
16 the long-term. But there's also an important factor
17 here - that's the lack of a really recent
18 comprehensive set of data to make decisions on.

19 There were a bunch of sampling points
20 taken in '97. And a bunch of sampling points taken
21 in 2000. When we were going over the groundwater
22 collection point, the borings and wells, there were
23 only three that were sampled, both in '97 and 2000.
24 We know groundwater changes course over time, wells
25 fall and rise, you had a drought and that probably

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significantly changed the petroleum that floats on the groundwater surface over here.

Ideally, you have an existing, an established groundwater monitoring well network, with wells, when you can go back and you sample, that gives you data where you determined you need data from, so you know where the problem is and where it is, and it is like you say it is.

In this case, I don't have any question there's problems there and probably about where it is. It would be hard to go back and prove it, because there aren't a lot of the permanent monitoring wells, piezometers, and things on the Sportsmen's Club premises. Those are abandoned borings so you can't go back and duplicate that again. So that's in reality where we are. But it's something that needs to be acknowledged as we move forward.

In the old days people would want, regulators would want you to have four quarter samples of groundwater from an existing permanent monitoring well network before you can move much further. But we've learned a lot since then. That was a long time ago.

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2 So I've got some recommendations I
3 think the Navy needs to consider doing.

4 One is doing some borings. I don't
5 know how many and I don't know exactly where, but to
6 depths of 200, maybe 250 feet, really downgradient
7 of the source areas, downgradient of Site 6-A, to
8 understand the geology, what kind of soils, what's
9 the groundwater flow, and what are the chemical
10 concentrations. I think work needs to be done,
11 on-site in the boundary of the property, if you can
12 confine your problem to your property, you have a
13 much less difficult thing to deal with. It's your
14 property. But if it's off-site, it's a different
15 kind of a problem.

16 I think, and I'll show you these guys
17 on the map. There's a place that's about 1,500 feet
18 right in what apparently would be a direct flow path
19 to the river from the contaminants, where there's no
20 borings. There's a boring to the southeast,
21 southwest that has contamination and to the
22 northeast that doesn't. There's 1,500 feet in
23 between that I think is a good spot, that I think we
24 need some additional investigation there. Again,
25 at depth, because we don't have any information on

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1 the geology, or the chemical contamination, or the
2 groundwater flow at the 200 foot depth, which is a
3 potential problem down in the Magothy. The reason
4 this is important, the Magothy aquifer doesn't
5 discharge into the Peconic. It continues going
6 south. I was told -- I could be wrong, there's a
7 number of residential developments or there's older
8 homes, any community water system and/or older
9 private domestic wells beyond the Peconic in the
10 Magothy down there, that could be impacted.

12 So that's why it is of concern not
13 just because Frank wants to know but because you
14 have a potential for exposure and you want to find
15 out if you do or don't have it. Would be a prudent
16 thing to look into. The bottom line here is what
17 the Navy wants to do, and I think definitely why
18 they hired me for this independent review to see if
19 we could go forward and do the next step, pick
20 things, some things we think would work, go through
21 the evaluation process to find solutions to these
22 problems. I said let's go ahead. It's time to do
23 it. We need to focus on establishing the cleanup
24 levels because then you know what kind of
25 technologies meet those levels. There's definite

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2 interaction between the regulators that has to go
3 on.

4 Looking way ahead, I like to
5 facilitate the process, likely remedial actions and
6 goals, wouldn't surprise me, these are typical kind
7 of things, we've already heard about soil vapor
8 treatments, air sparging for fuel at the site.

9 That's a highly likely candidate, to remove as much
10 of the actual oil you can get out of the ground, the
11 fuel. If it is saturated soils, you can get at, you
12 want to remove as much of the mass and the
13 contaminant as quickly as you can. Then deal with
14 dissolved phases in the groundwater.

15 Prevent migration off-site. If it is
16 significant on-site, significantly headed
17 downgradient, chlorinated VOCs, then you want to put
18 hydraulic controls at the southeast edge of the
19 site, to keep the downgradient water from flowing
20 further than the property line. Maybe not the
21 property line, maybe it's further back. If you can
22 find the downhill march point of most of it and put
23 it in there, to put a control mechanism there to
24 keep it where it is to deal with it. You're
25 limiting what you have to deal with in the future.

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2 Maybe simple pumping and monitored NA is probably
3 the way to go with BTEX or something more aggressive
4 if they want to release the site earlier, or other
5 factors come in.

6 Off-site contamination is the biggest
7 thing that needs to be addressed, you have to reduce
8 the risks to off-site receptors. To do that you
9 have to know what the receptors are. You have to
10 prevent people from drinking contaminated water, by
11 having a deed restriction, groundwater management.
12 Some states have in their regulations, the ability
13 to do that. People can't use the groundwater, we
14 are going to watch it, keep it here, make sure it
15 doesn't go further. But keep it here.

16 Provide treatment systems on
17 individual wells, or treatments systems for wells
18 that are contaminated. People can still use wells,
19 but you remove 10 parts per billion, whatever it is.

20 The challenges of the deep zone is
21 that if the Magothy is contaminated and the water is
22 going beyond the Peconic, who might be exposed? You
23 want to try to prevent that. If it is further
24 discharged to the bay and it could be concluded the
25 quantities are inconsequential, you have to go

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1 through a study to show that.

2 That's it. I know I talked fast and
3 I went through a lot. But I'm going to be around,
4 as well as any time after I'll be -- make sure you
5 have my phone number, if you think there's a reason
6 to get in touch with me some other time, or through
7 Bill Gunther. I'm your technical advisor. I can
8 answer your questions, if you have any questions
9 now, there's maps and materials that I can show you
10 after the meeting.
11

12 A MAN: I have a couple of questions.

13 Shallow groundwater and deep
14 groundwater on the off-site. How shallow or how
15 deep is the shallow groundwater.

16 MR. ANASTASI: You hit groundwater
17 five to 15, 20 feet.

18 MR. BRAYACK: In places it's three to
19 five feet.

20 MR. ANASTASI: When you hit.

21 A MAN: It runs from five feet to how
22 deep.

23 MR. ANASTASI: This diagram
24 here -- on-site right here, this is right up at the
25 Fuel Calibration Area, this sand -- here's the

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level, water level, that's five or 10 feet below ground. So you've got water down to 40 or 50 feet or sand, if the 40 to 50 foot sand zone, and you hit silty clay. Then there's another sand zone you encounter down in here, so that's 100 to 140 feet below ground. Then you have another silty clay zone in here. There's a point where it's not the nice layer cake look, like here. Like here, where they have more data and they show the things change down here, in what we call deep, silty clay and fine medium sand, down say 200 feet below ground, a 160 to 200 feet, this could be Magothy aquifer. The shallow groundwater moves and discharges up to the Peconic like that. And groundwater from here comes and moves. But the deep groundwater goes on. Also from looking at the USGS reports, the Magothy consistently to the east, more than southeast, there's a lack of really good control out here where you need it. Any time you do a water contour map with shallow groundwater flow directions, with the Magothy USGS studies -- going back there's 2000, and in the '80s and back in the '60s. I looked at three different reports. They are all consistently slightly different. The Magothy is a little more

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1
2 easterly, the shallow groundwater is a little more
3 southeasterly. And actually the Magothy further to
4 the south along where the road is, may be moving
5 even more southerly than east. So the small low
6 water is going towards the Peconic. In this case
7 the Peconic is a fixed point where it is, where we
8 are interested, and that happens to be south of,
9 east of where we are going, where we are coming
10 from. The Magothy where you are is moving east or
11 south. So that illustrates the point why it is so
12 complex.

13 What other questions do you have.

14 A MAN: I think you answered both of
15 them, but I didn't realize that the water, shallow
16 water would actually rise up into the Peconic.

17 MR. ANASTASI: That's why you have
18 water in the stream when it didn't rain. You have a
19 water discharge, water is discharging in the stream.
20 In the east, most streams are gaining streams
21 because we have so much precipitation. But out
22 west, a lot of them are losing streams and go dry,
23 they drain into the ground because there's not water
24 at that level.

25 A MAN: As far as procedure from this

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1 point, maybe this is more a question for, Frank has
2 provided for the Navy. Frank has provided a report
3 that is reflected in his presentation. What happens
4 now.
5

6 MR. COLTER: We are going to go back
7 and take in what Frank presented here. From what I
8 hear, though, it pretty much mirrors the results of
9 the RI report. And what I would -- what I would say
10 right off is that maybe we could do an addendum in
11 the conclusion section for the RI report, to maybe
12 incorporate some of these conclusions. But there's
13 really no need to redo the report or send out
14 another version or anything like that. We would
15 probably consider the RI report complete and maybe
16 barring updating the conclusion section or something
17 like that. And then it's on to the next phase which
18 is the feasibility study phase.

19 During the feasibility study you can
20 always collect field data. Normally we collect
21 monitored natural attenuation parameters, during
22 the feasibility study stage, to confirm or deny that
23 that treatment technology is going to be viable. So
24 it's not uncommon to collect field data even though
25 you're in the feasibility study stage, which

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1
2 is -- if you're not familiar with the feasibility
3 study, it's like setting goals for your cleanup and
4 then looking at available treatment technologies
5 that will meet those goals. So it's not much of a
6 field work report. It's more of an economic
7 analysis report. But it's likely we'd collect data
8 during that phase.

9 A MAN: Would there be any money to
10 do some deep borings off-site?

11 MR. COLTER: That leads us into the
12 next item of the agenda here.

13 MR. ANASTASI: Can I make a comment
14 to answer your question from my point of view. If a
15 regulator has to approve your RI, that's up to them.
16 But I would not recommend to anybody saying to the
17 Navy, to the contractors, to spend more money to
18 rewrite or revise the report. One of the -- there's
19 two conclusions. One is there's uncertainty in the
20 deep zone, but we think we have a handle on where we
21 think things are pretty good. That's what I think
22 that I said.

23 I'd hate to see them waste money and
24 effort rewriting the report. I didn't critique the
25 report, you know, specifically for that reason,

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1
2 because the money can be better spent moving forward
3 with the FS.

4 MR. GUNTHER: The only thing on my
5 mind, I like the idea of the addendum, only because
6 it would commit the Navy to looking further at this
7 1,500 foot gap in the data.

8 MR. ANASTASI: That's something
9 different to me, which is more like a work plan to
10 resolve the data gaps for the RI.

11 MR. GUNTHER: Just to have a bullet,
12 say there's some uncertainty. Doesn't give you the
13 warm fuzzy feeling. It can be one page in the
14 addendum.

15 MR. COLTER: We'll go through and
16 look at the recommendations and see what they mean
17 and go from there. It's hard to tell.

18 MR. GUNTHER: Conceptually you agree.

19 MR. COLTER: Yeah.

20 MR. GUNTHER: The community has asked
21 some of these questions in the past about additional
22 monitoring wells, even looking back in the minutes,
23 back at to 2001, the response has always been when
24 we get to the FS, we'll do some predesign drilling
25 and get additional data, that was three years ago.

PROCEEDINGS

1
2 So maybe two and a half years ago, anyway. So I
3 guess we want to see some action. And if
4 it could be committed to in the RI that would be a
5 great thing and see it reflected in the work plan
6 for the FS would be.

7 MR. COLTER: Yeah, going into the
8 future strategies that's a key point.

9 MR. GUNTHER: Okay.

10 MR. COLTER: While Frank was
11 reviewing this report, and of course we committed
12 quite a lot of funds to the restoration of Site 1
13 and Site 7 which based on previous meetings that was
14 kind of the focus of the RAB, was what should we do
15 with our money and we went in that direction. While
16 Frank was reviewing this report we had actually put
17 a budget together to do some work at Site 2, the
18 Fire Training Area. What's happened in the world in
19 the past year, year and a half has fluctuated our
20 budget. It's not just this site, it's all DOD
21 sites. Another one of the big impacts this year was
22 that the DOD took 3 million dollars of your annual
23 budget right off the top. So things that we had
24 budgeted, we usually get around 30 million dollars
25 for EPA Northeast every year, to do probably 250

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1 sites, don't quote me on that, I'd have to look, but
2 it's a significant number of sites.

3
4 So everybody had their budget for
5 what they could do this fiscal year with that 30
6 million dollars. Right off the top they took three
7 million off and just threw the whole schedule in an
8 uproar.

9 We also had some projects, this
10 happens every year, just as part of the budget
11 cycle, cost overruns that are unanticipated. Our
12 priority basically is not to do any stop work at any
13 of our sites. One of the more significant cost
14 overruns was right here at Site 1. So there was
15 another significant impact to our budget. The end
16 result was that the things that I had planned to do
17 at Site 2 and that would be a removal -- soil
18 removal action for the concrete fire training ring
19 and associated soils, pursuant to a recommendation
20 made by Jeff McCullough and Marsden Chen about a
21 year or so ago, they wanted test pits done at Fire
22 Training Area and Fuel Calibration Area to get a
23 handle on free product on the shallow water table.
24 As a result of that test pit program, which there
25 was a report that was sent out, we found a

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1 significant ring of contaminated soils, oily soils,
2 like almost an outer ring of the concrete ring.
3 That seems to make sense with those are the areas
4 where our air sparge pilot study was less effective.
5 That makes perfect sense because of the thickness of
6 the sludge. Air flow couldn't go through so that
7 makes a lot of sense.
8

9 What I wanted to do is to do removal
10 action to get rid of that ring and those
11 contaminated soils and do field testing for
12 monitored natural attenuation parameters at Site 2,
13 in anticipation of a groundwater feasibility study
14 where monitored natural attenuation may be a viable
15 alternative.

16 The bottom line is none of that was
17 able to get done this year because of the budget
18 impacts. We are now at a spot where Frank is now
19 done with his review and his report and I think we
20 are starting to hear that maybe we want to move
21 forward with the feasibility study and yes, there
22 are some data gaps in the field that need to be
23 addressed before any final remedy is determined.

24 So we have a 2004 budget that is
25 submitted and we are not anticipating any impacts at

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1
2 this point. We are assuming no impacts. We have
3 the budget and there is funding for Site 2. I
4 basically pushed it back to 2004 for that work that
5 I just mentioned. So I guess I would put it to the
6 RAB as something to think about. We don't need an
7 immediate answer tonight but it's something that you
8 want for the next meeting, is to think about the
9 priority. Site 1 and Site 7 are taken care of.
10 Money is committed, those systems are operating.
11 Those sites are going to be addressed. We really
12 have two major sites left. Where we don't have a
13 feasibility study. That's the Fire Training Area
14 and this whole Site 6-A and Southern Area and
15 off-site area.

16 What I see as -- items needed and I
17 went over them for Site 2, things that we need to do
18 at Site 2, is the removal action for soils in the
19 concrete ring. Collection of monitored natural
20 attenuation parameters to support groundwater
21 feasibility study and we also need to write a
22 feasibility study for soils after we get done with
23 the removal action, there are other site soil
24 considerations that have been brought up in the
25 Phase 1 RI that's probably now about ten years old.

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We have to go back, see how current that surface soil and subsurface soil contamination is at this point after the removal action, what's left and come up with a feasibility study for soils at that site.

For the site 6-A 10B and Southern Area, I see similar activities required. I see a feasibility study for soils being required mostly for the Site 6-A and 10-B area, where there has been documented soil contamination and free product contamination is at the subsurface. So we want to look at a feasibility study for the soil medium. Then we'd also want a feasibility study for the groundwater.

Included, you know, in that feasibility study effort, would be some field work associated with what we heard tonight, was whether some of the more obvious data gaps that we still have. So there's a list of three or four items per each site that gets us through the feasibility study for two media, soils and groundwater, and into a decision-making mode. And what I would ask the RAB to do between now and the next meeting is to chew on those items and put a priority to them. The money in 2004, that's for Site 2, the bottom line is

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2 there's money for Calverton in the budget. Once
3 that current year -- that budget becomes current, we
4 can use that money any way we need. We can move it
5 to Site 6-A or we can shift it any way you want.
6 The important thing is just getting money identified
7 for the site.

8 In the past we have committed quite a
9 bit of money for remedial actions and I haven't been
10 so aggressive with trying to get more of it.
11 Because we have committed probably close to 13
12 million dollars in the last two years for Sites 1
13 and 7, and that's almost a third of my region's
14 budget. So I have been pretty lucky. So I didn't
15 want to push the issue. With Frank reviewing the
16 Site 6-A report, we didn't see a need to really put
17 a plan together until we heard his review. And
18 that's why we shifted focus to Site 2. But of
19 course this recent payment of the war effort has
20 impacted that.

21 We basically have spent our entire
22 fiscal budget, we were done in March. So we
23 committed our whole program minus 3 million dollars
24 in six months, where we had planned to do it in
25 twelve months. So we were very aggressive in

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1
2 committing money at all of our sites in the
3 Northeast Region. One of the again, bigger items in
4 that, was to continue to fund the Site 1 landfill so
5 we didn't have to do a stop work on that. So that's
6 what I would suggest, is to think about it. I'm
7 sure you guys still have some interim meetings
8 before the official RAB meetings and maybe talk
9 about that among yourself and bring back a
10 recommendation at the next RAB meeting.

11 MR. GUNTHER: Is it either Site 2 or
12 Site 6-A as you're saying.

13 MR. COLTER: At this point, yeah,
14 it's looking like that. These three items are going
15 to be several hundred thousand dollars, as I see it.
16 So it's probably going to be an either or, something
17 in 2004 and then the rest in 2005. And that's in
18 addition to operation and maintenance money that I
19 have to get for Site 7, to keep that system running.
20 So I would say the best guess would be an either or
21 scenario for FY '04 and FY '05.

22 A MAN: From a very non-scientific
23 understanding. Jim, it seems to me like the Site
24 6-A area would be the area that, you know, based
25 upon what I understand, that -- we would want to

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concentrate on and keep it from leaving the site.

Right? So am I wrong on that? Frank -- that's one of the things I got from his trying to --

MR. COLTER: Let's keep in mind though that what our RI report concludes and is not really in dispute, is we have shallow contamination and in the whole scheme of things, low level, 120 to 200 parts per bill is relatively low level in the industry. We also have a hydraulic barrier downgradient that it hasn't reached there yet and we have the data to show it hasn't reached the river. Worse case scenario is that's as far as it's going to get without any private wells in the path. With the exception of the hunting club, which has been shut down.

So the immediate threat that you may be perceiving really isn't that threatening, I guess is the best way to put it. But delineation of the problem, yeah, we need to do that. We need to come up with a plan to address the low level contamination in the groundwater. We need to do that. There's also at Site 2, there's also contaminated soils on-site. Now, remember, that Andrea is not here, but I think she would be --

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A MAN: Yes, she is.

MR. COLTER: Economic redevelopment of the property is also very vital to this community. Maybe cleaning up Site 2 where it is more of a defined problem. We know where the soil contamination around the ring is and things like that. We can get stuff out in a more timely manner and turn that site over in a timely manner to the Town of Riverhead for economic redevelopment. So there's other issues.

A MAN: Right.

MR. COLTER: I think you guys need to sit and talk about and decide what is the priority. And we are not talking, we do one action for you and we don't do anything for ten years. We are basically saying commit money for a plan in 2004, commit money for a plan in 2005. Which one do you want me to commit first, is kind of where I'm going.

CO-CHAIR KAMINSKI: Saturated soil in the Fire Training Area, potential continuing source there, also a reason for getting it out there.

MR. COLTER: Yeah, it's petroleum hydrocarbons, so there is a chance that it still is going to release to the groundwater. Although, the

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AS/SVE system that we put in there, did remove a significant amount of mass from that area.

MS. LOHNEISS: I think listening to the report, I think it's very important to get that monitoring well in between that 1,500 feet there and if it's going off-site, if you haven't done it since 2000, what happened in the last couple of years, I think that's really important. That's affecting our water supply.

MR. COLTER: Like I said, I really don't want to get into a discussion tonight. But I would take your thoughts and the other thoughts and sit down among yourselves and come to a consensus.

A MAN: The problem with that kind of reasoning again, from a nonscientific viewpoint is sit down among yourselves and we'll get together next April.

MR. COLTER: We are getting together in August.

A MAN: In August, in August.

MR. COLTER: We are not going to do anything in these next three months. There's no money. Waiting three more months isn't going to change anything. The budget for this year is spent

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and we are going to have to wait until next fiscal.

A MAN: Some of us are spent.

CO-CHAIR KAMINSKI: The RAB sounds like it is hard over on the decision right. Forget Site 1.

MR. HISTAND: Where's the map of the plume. Be nice to look at it. Look at the map see if it's going out into the wilderness, into these people's wells.

A MAN: Didn't we discuss putting wells in there about a year ago? Whatever happened to that? I thought Suffolk County was supposed to get involved.

CO-CHAIR KAMINSKI: Sink a well or two.

A MAN: We can model and put a well where we think it should be.

MR. ANASTASI: In the IR report, this shows where it's known and where it isn't. There's a map here. It's really hard to interpret on the fly. It shows the different chemical contaminants at the different places at the levels. These downgradient areas we are talking about, this is the area that you just referred to, where there's a gap,

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1
2 and that is where things flow. See, this point,
3 there's a monitoring point here that had no
4 detections all the way to 100 -- to a 140? 140
5 feet deep there was nothing detected here. But
6 here, it was detected as much as 130 parts per
7 billion, as far down as 90 something feet.

8 And here it was detected but at
9 really low levels in '97 there. Here's an
10 interesting phenomenon, right here in '97, it's
11 only one part per billion. Right next door in 2000,
12 it's 120 parts per billion. Did that change in
13 three years because of new things moved in or is
14 that little bit of a distance catching a channel,
15 that groundwater is flowing through that has more
16 concentration in there? That's a really, really
17 interesting phenomenon that I just noticed today and
18 anyway, beyond there, you don't have anything so
19 that's the area that I'm talking about. That to me,
20 is an area that you really don't know that if you
21 drilled down deep, you provide a lot of answers to
22 what we don't know.

23 But that's a really interesting thing
24 that over three years did it go from 1.3 to 200 or
25 is it something was there 200 there in '97 and we

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just don't know because we didn't see them.

A MAN: Small low, well.

MR. ANASTASI: There's different depths. This sample here is from -- what is that under my finger, one to something? Move to the left one column.

A MAN: There's two very distinct different plumes at different depths. One pumps out water that was dumped into the well and ran down, that's what we are seeing at the shallow off-site boundary and towards the river. The other contamination is at depth, at the source area, starting out at 200 feet, which is 150 below the water table? That's going deeper as it's traveling south so...

MR. ANASTASI: You know, you don't know. I'm not saying it's happening. I haven't seen many places that had one release. Over 30 years, I haven't seen many places that had a spill.

A lot of this stuff somewhere else might be moving. I think that's a real possibility. It is not just stuff here and what's down there. There may be something else. And so you need to know the deep flow system to find out --

PROCEEDINGS

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2 A MAN: Can you have more than one
3 source of contaminant.

4 MR. ANASTASI: Yes, you can. In this
5 area in general, it's the area where they did the
6 stuff and the area of where they spilled. I don't
7 know the history of the surrounding areas, in their
8 investigation it seemed like they rule out other
9 things, septic field leaching.

10 A MAN: There was a solvent found in
11 this profile here.

12 MR. ANASTASI: These numbers are total
13 concentrations of something, it doesn't say
14 what -- the highest -- the one VOC that was at the
15 highest in this place, there was 220 parts per
16 billion of something, there might have been 190 of
17 something else -- we do know because it's here in
18 the data.

19 Again the geology here is, the boring
20 logs say it is done from drill cutting from the
21 augers not from a split sampling. It says it could
22 be inaccurate. The certainty about whether that
23 silty clay, which is the highest in the clay.

24 A MAN: That's good because it won't
25 go there.

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MR. ANASTASI: Maybe it is not silty clay there, you're not sure because of the sampling technique, or the lack of it there. But those are the kinds of things.

A MAN: These profiles -- on the southern boundary, I don't remember how deep they were -- do you think you went down deep enough to catch this stuff.

MR. ANASTASI: I have no idea how deep they drilled. That would be really important. Also the data from the Sportsmen's Club.

MR. BRAYACK: The data is in a report already.

MR. ANASTASI: The county well data.

MS. MANNHAUPT: How come Frank didn't get that.

MR. BRAYACK: It's in this report, as part of this report already.

MR. ANASTASI: I must have missed it.

A MAN: We did profiles all along River Road.

MR. ANASTASI: Along the Southern Area, the county?

MR. BRAYACK: No, no.

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2 MR. ANASTASI: I didn't get that. I
3 figured they were all yours.

4 MR. BRAYACK: No.

5 A MAN: We did the irrigation wells.

6 MS. MANNHAUPT: We need to delineate
7 the county's wells.

8 MR. BRAYACK: There is a separate
9 designation for the county wells.

10 MR. ANASTASI: Did they sample
11 multiple wells.

12 MR. BRAYACK: They weren't nearly as
13 deep.

14 MR. ANASTASI: Would this be one.

15 A MAN: I forget which we were using.

16 MR. ANASTASI: You were down along
17 the road here.

18 MR. BRAYACK: Yeah. The county was
19 drilling along the road at the same time we were
20 drilling these over here, and we showed up at a
21 meeting both holding data that showed the plume was
22 further and deeper than what we had originally
23 thought. That's what pushed the Navy into this
24 off-site investigation.

25 MS. MANNHAUPT: Where are those

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wells.

A MAN: Is there a run-off run-up area over here.

MS. MANNHAUPT: I want a little pink magic marker where the county wells are.

MR. ANASTASI: Culvert and ditches go across there and go to these ponds.

A MAN: If that was contaminated, that could be a second source down there.

MR. ANASTASI: I don't know anything over there.

MS. MANNHAUPT: I need to know which ones are the county's.

MR. ANASTASI: You're saying these three are the county wells.

MR. BRAYACK: These wells in this area here.

The county wells do not show up on this map.

A MAN: We did more than three there. We went further to the east.

MR. ANASTASI: All I saw were these wells.

MS. MANNHAUPT: I hope Frank realizes

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I'm going to be on the phone with him making him
crazy where these wells are.

MR. GUNTHER: I thought you guys were
drilling a just a couple of years ago.

A MAN: They were supposed to.

MR. GUNTHER: I mean the county.

MS. MANNHAUPT: '95-'94 data.

A MAN: I think it was that far back,
yeah.

MR. GUNTHER: It was two or three
years ago.

MR. BRAYACK: I think they're called
SC wells.

A MAN: What was the projection of
migration, 100 feet a year?

MR. GUNTHER: Something like that.

MS. MANNHAUPT: I called Henry, he
wasn't in.

A MAN: Wasn't there run-off that
they talked about before they entered on the runway.

MR. BRAYACK: This is a berm as well
that they have here.

A MAN: And there was a lot of
contamination.

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MR. ANASTASI: This is a 1974 well.

A MAN: That could account for the different depth of the plumes. This is coming a longer way than this.

MR. BRAYACK: That's a permanent well that we've been monitoring.

MR. ANASTASI: What do you think that may be.

MR. BRAYACK: It is Eastern McKay Lake, it's right in here.

CO-CHAIR KAMINSKI: The data's in here and the location is not.

MR. ANASTASI: This is the monitoring well with the one time sampling, it's not one time, but it is one place.

CO-CHAIR KAMINSKI: If it's in there, we'll find it. We don't want to go away without it.

MR. ANASTASI: I did miss.

MR. COLTER: The county was initiating a program at the same time that we were doing some on-site activities, Jean. They installed a couple of wells, found contamination, we picked that program up. They never finished their plan. We implemented their plan. So that, all that data,

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becomes the Navy data. I don't know how many wells they had planned to put in. But they only put in I think two.

MR. GUNTHER: Three.

MR. COLTER: Three and we picked it up. That's probably why there's no designation because we picked the program up for the county and continued it.

MS. MANNHAUPT: So this is not '94-'95 data that we are talking about.

MR. BRAYACK: It's '97 data.

A MAN: I'll go back, get the report, fax it to Frank and make sure he's looked at it.

MR. ANASTASI: The RI refers to two previously installed county wells and they have designations and we can give you those to help you found that.

You know what you've got. It shows a well, it isn't designated which one, that says it was installed in '74 and there's some different sampling dates.

A MAN: That's a permanent well that we had outside the fence line that when we started finding TCA and I think TCA in that, immediately

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1 notified the Navy. That's had a long history.
2 That's relatively shallow.

3 MR. ANASTASI: We showed me a page in
4 the text that has a little data table for that one
5 well and there's reference in the sense to SAC
6 whatever.

7 MR. BRAYACK: SACAL.

8 MR. ANASTASI: Two.

9 A man: Monitoring wells happened to
10 be in a location.

11 MS. MANNHAUPT: So two current wells
12 and one from 1974 equals three wells?

13 A MAN: I'll find it. I know where
14 it is.

15 MS. MANNHAUPT: That would be very
16 much appreciated.

17 MR. ANASTASI: The thing about that,
18 it if these existing wells, if you've got three
19 existing wells --

20 A MAN: We did profiles. I don't
21 think we left anything in place. The point is, it's
22 not the deep well that we really need at this point.

23 MR. ANASTASI: If it was an existing
24 sampling point you could go back to, it would be
25

PROCEEDINGS

1
2 nice to know it you could include it in your
3 evaluation to make sure you want to use it to get
4 the snapshot.

5 CO-CHAIR KAMINSKI: What's your
6 conclusion?

7 MR. BRAYACK: The data was discussed
8 and used as part of the conclusions of the report.
9 It did not change any of the extents or any of the
10 depths. We showed the area where the contamination
11 is known to be and where it's suspected to be and
12 these wells that were installed by the county are
13 included in that area.

14 MR. ANASTASI: The data from the
15 wells didn't change the interpretation of where it
16 is or how bad it is.

17 A MAN: I agree with that.

18 MR. BRAYACK: The wells we put in
19 were more contaminated than what the county had
20 found in their data.

21 MS. MANNHAUPT: Okay.

22 CO-CHAIR KAMINSKI: So it's Site 6.
23 We don't have to come back in August. Start working
24 on Site 6. You got your direction.

25 MR. COLTER: Okay.

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One of the things that you see here with what Sy said they found 1,2-DCA, which is typically a breakdown product of TCA & TCE, so there's some evidence and we did MNA sampling, that's in the report too, that those parameters are in the aquifer that would suggest that natural biodegradation is occurring, and this is actually a good indicator because DCA is not used as a solvent. It is a breakdown.

A MAN: We also saw a lot of DCA at the fence line, be careful. If this was being discharged from a recovery system after oil separator type operation? You had solvents in a fairly anaerobic environment on-site, that's where the breakdown could have occurred and you could be pumping up. Once it gets into shallow groundwater there's still a fairly high oxygen content and we've traced contaminants without significant breakdown for miles so... I wouldn't overstate the potential for dechlorination in the aquifer.

MR. KAMINSKI: There's ways of finding out. They'll have to look at that.

MR. COLTER: We have the delineation. We do have some data gaps. But I guess the point to

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1
2 make is filling those data gaps really isn't going
3 to change what the problem is and what the remedy
4 might be. I don't think by filling those gaps other
5 than the size of the remedy possibly.

6 CO-CHAIR KAMINSKI: We'll work on it.
7 We'll work on it.

8 MR. COLTER: That's why we go into
9 the feasibility study stage.

10 CO-CHAIR KAMINSKI; We need more
11 information.

12 A MAN: There's two issues pointed
13 out. One is the potential impact of the shallow
14 contamination on the Peconic River, which if we've
15 seen everything the worst that's out there, maybe
16 monitored natural attenuation is satisfactory.

17 The other issue is the deeper
18 contamination, whether or not it is tied up in that
19 silt zone or whether it is leaving the site and if
20 it is then I have to worry about a contaminated
21 aquifer segment that might be pulled in by some
22 future water supply well. Until we know whether it
23 is mobile and what the bounds of that are, you can't
24 really do a risk assessment.

25 CO-CHAIR KAMINSKI: We got to know a

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little bit more.

MR. COLTER: All right.

CO-CHAIR KAMINSKI: That would bring us to something that the last time this happened, I was not the chair but sitting in the back of the room. The Navy left and the community elected somebody. So that's what we'll do. The Navy doesn't get involved in electing the community co-chair.

MR. GUNTHER: Are we going to have one more item after this or is this the final item you're going.

CO-CHAIR KAMINSKI: Future strategy and you decided future strategy was six and not --

MR. GUNTHER: That's very good. One thing you used to provide to us that you haven't in a while and we thought it would be a good idea to update, documents to be submitted by Navy for regulatory review and this one would go through FY 2002.

MS. MANNHAUPT: It is the chronology, we want an update.

MR. GUNTHER: For each site and where you are on each one.

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2 MS. MANNHAUPT: I have two questions.
3 Actually I have three. Vinny's not here.

4 Did Frank, did you go through the
5 thing with no sensitive receptors and no ecological
6 risk.

7 MR. ANASTASI: We talked about that,
8 and I said other than what it says in the report, I
9 didn't know. To make sure everybody understood
10 that. They were talking about the removal at the
11 landfill and they mentioned the tiger salamander.

12 MS. MANNHAUPT: We discussed all
13 that.

14 MR. GUNTHER: We didn't get an
15 answer. I don't think, at least I don't recall one,
16 I may have drifted off. How you came to the
17 conclusion that there were no sensitive receptors
18 when the Peconic River is a sensitive ecological
19 area, in general, for us. So again I don't know if
20 you're prepared to discuss that, but that's the
21 question.

22 MR. COLTER: In the report, is the
23 model that we ran and it showed that right now
24 there's no -- there's no impact to the river. Our
25 contaminants haven't got there yet. The model.

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CO-CHAIR KAMINSKI: How do we reach there are no bugs and bunnies, as Frank.

MR. COLTER: I'll get to it.

The model shows that by leaving it alone and our contaminants reaching the river that the impacts would be below the ecological risk based screening number, that's how that was determined.

MR. GUNTHER: That's not the same as no sensitive receptors.

MR. COLTER: I think that was talking about on-site soils, the 6-A soils on-site. Because it's an industrial area, it's not a habitat. It's not -- groundwater, there's no -- no animal drinking the groundwater, so I think that's where they came from. The receptors were mainly on-site to soils, but there's no habitat in the developed area that would sustain an ecological receptor.

MR. GUNTHER: So the off-site part of RI is strictly groundwater contamination.

MR. COLTER: There's no off-site plume of soil from the Navy.

MR. ANASTASI: There's on-site pond deer and beasts that I guess are running around today on-site. I guess they're not sensitive. This

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2 isn't my realm -- I've worked on sites where we do
3 an ecological risk assessment.

4 MR. COLTER: I don't think we
5 structure a clean up for the deer. I could be
6 wrong. Usually it's endangered species that governs
7 that. And so but in today's -- it's an industrial
8 model, of the industrial area, and it is not a good
9 habitat for sensitive ecological receptors.

10 A MAN: Thinking about what -- is
11 going through Brookhaven, no contaminants accumulate
12 in deer meat and pose a threat to somebody who might
13 eat deer.

14 MR. ANASTASI: Some state regulators
15 who are responsible for that aspect, looked at this
16 and said they agree.

17 MR. COLTER: Those conclusion in the
18 final report that's been submitted.

19 MR. ANASTASI: If the people who
20 should somehow disagree, they should have told them.

21 CO-CHAIR KAMINSKI: I brought one of
22 yours, now it's mine, one of your ecologies back
23 from Calverton today. It's a little tick.

24 MS. MANNHAUPT: I understand that
25 with this and Frank's review, sort of Frank's done

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so to speak.

MR. COLTER: (Nodding).

MS. MANNHAUPT: Now our priority is to go on with these recommendations.

MR. COLTER: Right.

MS. MANNHAUPT: What do I have to do to get Frank back, write another TAPP grant for the next document?

MR. COLTER: Yes, it's 100 thousand maximum for the life of the project. Use it wisely.

MS. MANNHAUPT: I think the Peconic is a wise thing to use it on.

MR. COLTER: Well, that's your choice. I'm letting you know.

MS. MANNHAUPT: If the committee disagrees, we can go on to something else.

MR. COLTER: There's no report out yet. So I really can't scope what he's going to review because we haven't written it yet. So I mean, but that -- yeah, any other reports we put up, sure that's up for a TAPP grant. But like I said, there's about 80 thousand left.

CO-CHAIR KAMINSKI: I think that's a good choice.

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2 MR. ANASTASI: Well, I don't
3 want -- I'm not trying to get work for myself, I'm
4 really not. But I do this under the TAPP program at
5 different service places around the Air Force and
6 Army as well as the Navy. And at a site in
7 Philadelphia, for four years now I have been the
8 consultant on board for 25 thousand a year, and it's
9 not a specific thing. There's a lot and it's
10 whatever. So your service may not do it that way
11 but other services can do it that way or do it that
12 way.

13 MS. MANNHAUPT: Can we broad-base it.

14 MS. ANASTASI; it's not like a
15 specific report. That's your all's policy.

16 MS. MANNHAUPT: I didn't read that in
17 the handbook.

18 MR. COLTER: Let's keep in mind that,
19 you know, and I appreciate Frank's efforts, but
20 typically when you bring a third-party consultant
21 in, that's because you're not clear or you need
22 another explanation or you don't trust what you have
23 heard. And I think from what you saw tonight,
24 there's really not a lot of difference between what
25 these consultants are doing, and Frank's an

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2 environmental consultant as well. So, you know,
3 there's not much difference between what you've
4 heard before and what Frank has presented. So -- I
5 don't want to say just spend the 100 thousand
6 dollars of taxpayer dollars just because it's
7 available. I think there should be a need. If you
8 really doesn't trust what the Navy consultants have
9 been telling you, that's one thing.

10 If you need a different type of
11 explanation of what the Navy's consultants aren't
12 doing a good job in explaining the data, then you
13 would use a third party to try to give you a simpler
14 explanation. You know. I don't know if we have
15 that situation here. And maybe I'm wrong, but
16 that's really the use of the TAPP grant. Is in a
17 low trust low credibility situation. I'm not
18 exactly sure we have that here.

19 MS. MANNHAUPT: I disagree with you.
20 In reading the handbook and writing a TAPP grant, if
21 there was low trust and no way to agree to disagree
22 to get the site done, we would not have gotten to
23 this point in the years we have gotten to this
24 point. We'd have fought you tooth and nail as I was
25 usually doing in the first three and four meetings

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2 and calling Marsden every other week and making the
3 State of New York absolutely crazy and lived with
4 me. I think collectively we've all done a heck of a
5 job. And I think what Frank did for the Peconic
6 River and pointing out the data gaps and being
7 technical on where some of the things are, with all
8 due respect to your consultants, those were data
9 gaps. That was lost information. We have now just
10 switched priorities tonight. I'm not saying that
11 they're not good consultants, because I get all
12 sorts of environmental stuff and I'm in the
13 environmental industry and Tetra Tech, with the
14 environmental lab bulletin and all the work that
15 Foster Wheeler does, I stay on top of it.

16 But there was a mind set that Frank
17 put forth on a technical review for a community
18 mindset not just to school us but to see our point
19 of view, different from a regulatory point of view,
20 or a military point of view or the military's hired
21 consultant point of view, because you charge them
22 with the view. We charged Frank with our mindset on
23 what we were looking for in those documents. And I
24 think his work and from what I've read just on this
25 one document, has made me feel more secure on where

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2 these documents are going. I feel easier even going
3 over it with Frank and coming here tonight saying,
4 yeah, we understand these priorities and what your
5 time tables are for the soils and the rest of this
6 stuff. However, the need and the importance for my
7 calendar year, my state and our drinking water is
8 for you to change your mindset a little and see how
9 important that drinking water is. Even for the Town
10 of Riverhead, that drinking water is important. If
11 they are going to develop that land in any way,
12 shape, or form, residential, nonresidential, getting
13 the zoning board together, changing it, they need
14 cleaning drinking water first and foremost. For a
15 nontechnical person, I found this valuable to
16 running the cobwebs out of making some decisions.

17 MR. COLTER: Frank did his job then.

18 CO-CHAIR KAMINSKI: To answer Frank's
19 question, is there anything in the way we do things
20 that allows him the way he works for the Army.

21 MR. ANASTASI: Yeah, and the Air
22 Force too.

23 CO-CHAIR KAMINSKI: Is there anything
24 in our criteria that allows him to work the way he
25 does.

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2 MR. ANASTASI: I have a scope of
3 work.

4 CO-CHAIR KAMINSKI: He's on retainer.

5 MR. ANASTASI: There had been a list
6 of different RIP sites. The PCTI essentially became
7 part of the cleanup team. Participate in the
8 meetings, evaluate site after site. Participate in
9 writing the decision document, try to decide what
10 should be done all along the way, because there were
11 issues the way the people don't understand, when the
12 Army comes in and says we have PCBs in the sewers,
13 and the like, we don't need a sample. I look at it,
14 I looked at information, I helped the people
15 understand. No, I didn't think sampling is
16 necessary, et cetera. If I was going to do
17 sampling, the Army would say, go out and do two
18 samples in the sewer belly, where it leaks. There
19 weren't PCBs there, so the people didn't waste a lot
20 of time and they accepted that, they had peace of
21 mind and they moved on.

22 Facilitating progress, I truly
23 believe it and even though I always say it. If
24 it's somebody's own consultant they can hear what
25 they're saying. Even if it is the exact same thing

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2 he's saying, that's better because he's their
3 consultant. It's a scope of work to help the
4 community members of the RAB understand what's going
5 on, to help you understand their perspective and
6 whatever it is that's going to be on the plate for
7 the year of the RAB, is specifically mentioned in
8 this case, it would be to help maybe close the data
9 gaps to determine the course of action for the FS
10 and help the RAB members comment on it and
11 understand that and whatever else was going to come
12 up.

13 MR. COLTER: If that's defined on one
14 project, the cap on that is 25 grand. Not that you
15 get 100 grand and you work on it for one project.
16 It's 25 per project. If you come to a meeting on a
17 scope of work for the next two, three four years,
18 that's your scope of work and you can do that below
19 25 grand, yeah.

20 MR. ANASTASI: With the Air Force
21 that's about, I flew to every Denver every month for
22 a year.

23 MR. COLTER: If he's sitting on board
24 for a four-year time frame for that one project
25 that -- you can't put another project on it till

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2 that one's done. He can't in that four years review
3 an FS report and call that a separate project. You
4 can't do that.

5 CO-CHAIR KAMINSKI: Here's a
6 solution. Jim, you could be on here as long as you
7 want to be.

8 MR. ANASTASI: You can't get 100 a
9 year.

10 MR. COLTER: Not a year. Per project.

11 MR. ANASTASI: The maximum is 25 a
12 year.

13 CO-CHAIR KAMINSKI: Jean, get Frank
14 to send you his statement of work, play with the
15 TAPP grant stuff, send it in and see if it works.

16 MR. GUNTHER: Come up with a scope of
17 work.

18 MS. MANNHAUPT: If the members of the
19 RAB can get together, help with the scope of work,
20 based on what we feel is the priority. Over the
21 next couple of months, definitely, so we can have
22 final discussion in August. If we are meeting in
23 August again, we are not pushing it past August to
24 meet. We can let Frank know where all of this is
25 going because to use a cliché, I find this very warm

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2 and fuzzy and the Town of Riverhead deserves the
3 property, the Navy deserves to get it cleaned up and
4 get the hell out of here and not see us anymore, and
5 we are utilizing taxpayer dollars of 100 thousand
6 dollars over the scope of an entire thing, very
7 efficiently as far as I'm concerned, as a taxpayer,
8 when it helps my community, my townships, and my
9 Navy to get what needs to get done, the proper way
10 and not come back 30 years from now going Oh, shit,
11 we didn't do it right.

12 CO-CHAIR KAMINSKI: Do it right.
13 When you think of the statement of work, make sure
14 it's one that -- it's not one you would just love to
15 have. Make sure it's one that fits the criteria.

16 MR. GUNTHER: Should we send it to
17 you for your comments, to see if it's valid.

18 MR. COLTER: We'll send it down to
19 headquarters like I did the previous one. There is
20 a chance the Navy does it differently than the Army
21 or the Air Force. I can send it down and get a
22 reaction on it.

23 CO-CHAIR KAMINSKI: It's not going to
24 happen right away. How did it happen the last time.

25 MR. COLTER: Because we didn't have

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any money identified.

MS. MANNHAUPT: Go to battle for us
or call me and I'll...

CO-CHAIR KAMINSKI: That's fine, the
ball's in your court to get together.

You guys want to elect somebody now.

MR. COLTER: You have another
question.

MS. MANNHAUPT: Vinny said he sent
several comment he said he was very disheartened
that he's not E-mailed back.

MR. COLTER: To who.

MR. GUNTHER: Vinny Racinello.

MR. COLTER: Who did he E-mail
comments to.

MS. MANNHAUPT: To Tetra Tech.

MR. COLTER: He should send them to
me.

CO-CHAIR KAMINSKI: We'll do it.
Send them to Jim. You'll get a response.

MS. MANNHAUPT: I wanted to see his
comment.

MR. BRAYACK: Do you know who at
Tetra Tech were they sent to?

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MR. COLTER: I don't want the perception over we are not being responsive.

MS. MANNHAUPT: Jean that's why I brought it up. I didn't think you would.

CO-CHAIR KAMINSKI: Where do people send questions.

MS. MANNHAUPT: I always thought they went right to Jim Colter.

MR. COLTER: Yeah.

CO-CHAIR KAMINSKI: Don't send them anywhere else.

MS. MANNHAUPT: Okay, I'm done, thank you for bearing with me.

CO-CHAIR KAMINSKI: I don't know the format for who takes what record of whom when the --

MS. MANNHAUPT: Let's elect Bill.

A MAN: I second that nomination.

A MAN: All in favor.

(All ayes)

MS. MANNHAUPT: Bill, you got it.

MR. GUNTHER: I guess we did it.

MR. COLTER: How about new membership, we have had turnover.

MR. GUNTHER: I had two people drop

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OUT.

MR. COLTER: Go over the current membership and anyone that's not an official member, getting them on officially if they're still interested.

(Discussion off the record).

MR. GUNTHER: We have one new member, Harry, Histan, H I S T A N D.

MR. BRAYACK: Did you drop members?

MR. GUNTHER: There's' no deletions officially at this point in the RAB membership.

MR. COLTER: That's it.

CO-CHAIR KAMINSKI: Any closing remarks or action items? Who remembers the action item.

MR. BRAYACK: Let me go through what I have. If anything's missing, we can add it.

This is actually a Bethpage action item but it has to do with the meeting dates in August. The next meeting is going to be either the first or third Thursday of August?

This was an action item and it got deleted, was for the RAB to consider Site 2 versus 6-A work, that got eliminated as an action item,

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because the RAB picked site 6-A to proceed with.

As an action item, Jim Colter's to provide documents to be updated in the next RAB.

MR. COLTER: The chronology of documents to be scheduled, updated.

MR. BRAYACK: I don't know if you want to make this an action item or not but for the RAB to pull together a TAPP grant application.

MS. MANNHAUPT: That's an action item.

MR. BRAYACK: Okay. And that's what I have written down.

A man: We are supposed to talk Joe is that the end of it.

MR. ANASTASI: He was going to find out and send me a copy of the county wells, where they are, how deep they are and what the results were.

CO-CHAIR KAMINSKI: You got all the data that the county has.

MR. BRAYACK: Except for this.

MR. ANASTASI: Whatever I get, I'll send you so that I make sure you have what I have.

CO-CHAIR KAMINSKI: Anything else?
Action? More action items?

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Congratulations for the new co-chair.

I'll let the new co-chair close the meeting.

CO-CHAIR GUNTHER: Thank you, I appreciate everybody's attendance tonight and Frank, we really appreciate your involvement. I think -- it gave a lot of us a better feeling about the work that you guys have done. That's only enabling this trust that we have established and so I'd like to continue that. Thanks very much.

MR. ANASTASI: You're welcome.

(Time noted: 9:24 p.m.)

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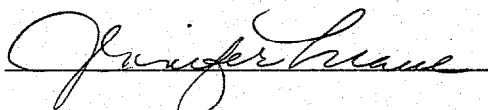
C E R T I F I C A T E

STATE OF NEW YORK)
) ss.
COUNTY OF SUFFOLK)

I, JENNIFER MAUE, a Registered
Professional Reporter, do hereby certify that the
foregoing Matter, taken at the time and place
aforesaid, is a true and correct transcription of my
shorthand notes.

I further certify that I am neither
counsel for nor related to any party to said action,
nor in any wise interested in the result or outcome
thereof.

IN WITNESS WHEREOF, I have hereunto set
my hand this 10th day of July, 2003.



JENNIFER MAUE