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Restoration Advisory Board

Naval Weapons Industrial Reserve Plant Bethpage

February 17, 2000

Bethpage Community Center, Bethpage, NY

7:00 P.M.

B e f o r e:

EDWARD MANGANO, RAB MEMBER

JAMES MCBRIDE, RAB MEMBER

LINDA MANGANO, RAB MEMBER

ROY TRINGALI, RAB MEMBER

EDWARD RESCH, RAB MEMBER

ALSO PRESENT:

MARTIN SIMONSON, DCMC

STEVEN SCHARF, D.E.C.

ELITE/GAGLIANO REPORTING

DAVID M. WEBER, RPR

OFFICIAL REPORTER/NOTARY PUBLIC

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MS. HARE: Ladies and gentlemen, we would like to get started. If you could take your seats, please. Thank you. For those of you who don't recognize me, because I have been absent for a while, I am Judithanne Hare. I am from the Naval Air Systems Command. I am the program manager for the Government-owned contractor operated facilities. This facility that we are concerned with, which is the Bethpage facility, is, in fact, a government-owned contractor-operated facility. And, I think we have got a good turn-out tonight. I appreciate all of you coming out tonight. It's very cold tonight so I appreciate the fact that you are dedicated enough to do this. If there's a prize given out for the guy who came the longest distance to be at this meeting, it has to be Mr. Bill Pakulis who is from Bloomfield, Connecticut, who has come down to observe this Restoration Advisory Board. Bloomfield, Connecticut is the site of another of our government-owned contractor-operated facilities. And, we will be instituting a RAB there soon. So, Mr. Peculas is here with us tonight to see how one actually operates. Welcome. Thanks for coming such a long way.

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MR. PAKULIS: Thanks.

MS. HARE: At this point, I am going to turn it over to my co-chair and we are going to get started quickly with the program. I think there are a couple of folks, maybe more than a couple, that have other meetings this evening. So, if we can move the meeting along that's going to be helpful so we can get out of here at a reasonable hour and these folks can get to their other meetings and I might get more than five hours of sleep tonight. Did everybody get a copy of the minutes? The RAB members got a copy?

MR. MANGANO: Yes.

MS. HARE: Are there any ommissions or corrections to the minutes?

MR. MANGANO: None.

MS. HARE: Motion to accept the minutes.

Motion moved and seconded that we accept the minutes. All those in favor please signify by saying aye.

MR. MANGANO: Aye.

MR. MCBRIDE: Aye.

MS. MANGANO: Aye.

MR. TRINGALI: Aye.

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MR. RESCH: Aye.

MS. HARE: Those opposed? Motion carried. I guess we will start then with the co-chairman of the committee. To expedite everything, why don't we just get into the presentation and see what we have. It will give us more time for questions and answers. We will move on that way.

For those who don't know, Jim Colter is the Project manager out of the Navy's Northern Division with offices down in Philadelphia and project manager for the overall clean-up of this site.

MR. COLTER: Many of you came to the site or conducted a tour back in early December. Later on, for any new members that become part of the RAB, if anyone wants another tour of the site just let me know and we will arrange something for you. It was well received. It was a good turn-out and a lot of people found out what pretty decent condition that property is in right now. So it was very helpful to actually see what we talk about here each night.

Back in early-- a couple of weeks ago in early February, February 7th to be exact, we held a technical meeting and, just to explain what a technical subcommittee portion of the RAB is, it's

where the Navy and it's consultants and the regular community get together to basically make the decisions for the site. RAB members are obviously invited. However, sometimes we hold these meetings in Albany but sometimes we hold them here on the Island so, Jim?

MR. MCBRIDE: On that subject, I would just like to recommend to the Navy my personal opinion. I haven't had a chance to survey the RAB members but the understanding that we have-- I will just describe the advisory board decision-making body but, if the regulators are in favor, I would like you to schedule those technical meetings down here on the Island so we can attend.

MR. COLTER: Okay. We have had a similar request that the RAB group out in Calverton-- and we have pretty much been doing that. The Albany regulators sometimes that coordination is difficult. But, what ended up happening this time is we actually had to have a tele-conference. I think it went well but sometimes meeting and doing presentations offers a lot more value but we will work with everybody and see if we can't come up with something.

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MR. MANGANO: Ed Mangano. Are there minutes taken at these hearings?

MR. COLTER: Yes.

MR. MANGANO: Maybe RAB members can receive a copy of the minutes if they're held in Albany.

MR. COLTER: What I have tonight is the agenda, and I have the minutes here. I don't think we made copies of them. The presentation tonight is basically centered around what the technical review committee meeting was. What I want to do is bring Dave up from Tetra Tech. He's the Navy's own enviornmental consultant on this property. And, he's going to go over basically a history of what we have been doing, some of the reasons why we are to the point we are at today with our installation sites. Following that, I am going to introduce Marlene Lindhardt and she's from the Foster Wheeler Corporation. She's the Navy's own enviornmental consultant. And, basically, installs the remedial systems that the D.E.C. and other regulatory members and the Navy decide, finally decide upon to install them. She's been operating the Air Sparging Vapor Extraction System out at the site, one of the former Grumman areas. And, she's going to give us a

presentation on the history of that operation and where we are at today. I will come back up and I will do a little presentation on what the rest of that technical subcommittee meeting was all about.

MR. MCBRIDE: When are we going to be able to have a discussion or be able to bring someone in to discuss the ground water? I understand there's some concerns right now between Grumman and the Water District regarding another treatment facility.

MR. COLTER: I will tell you what: one of the items at the end of this presentation of mine will be a discussion of the status of the Ground Water Operational Unit and I know Steve Scharn from the D.E.C. is here and we will get into the Navy's role in this.

MR. MCBRIDE: Excellent.

MR. COLTER: Dave?

MR. BRAYACK: For the RAB members I have a copy of these extra sets of printouts. I do have extra copies here too, if you want to get them at some point.

Basically, I am just going to give a brief presentation on the ground water from the Navy

property. I just want to point out that the ground water in the area is very complex. The Navy's property is pretty much outlined in blue here. For the most part, when we talk about the Navy's property, that's the 105 acres, Plant 3 being this building that you could barely see here. The Navy does have a couple of other pieces of property and is pretty much not a concern. The green around here and the green around here is the boundries of the former Northrop Grumman property. I think most people know that a good portion of this property has already been transferred to other entities. So, just keep it in mind that Northrop Grumman does not own all of this right now. In addition, there is a Ruco site located here. Ground water in this area is very complex. There's a general regional ground water flow to the south and the east. North is straight up on this. What we have done basically is there is some contamination in the Navy property, some concerns here and concerns here. And, the contamination, all co-mingling in the area right here. It's a very complex situation. We have most of the chlorinated solvents, the chlorinated organic chemicals such as trichloroethylene,

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perchloroethylene, that being a dry cleaning solvent. Another chemical called trichloroethane. In the ground water all these chemicals degrade, they break down to other chemicals. What there is, once again, is the Navy property. Once again, Plant 3 is here. South Oyster Bay Road pretty much comes down along the edge here. As part of the investigation of the sites back in 1986, the Navy went through and did a record search and identified all of the historic waste activities. They pretty much narrowed the primary concerns down to what's known as three sites. Site one is the location of a former drum storage. There were actually two of them there. This is where when waste solvents, waste oils, and other types of wastes would be placed in the drums. Drums would be stored here and then until a truck load or so generated and then taken off site.

Site 2 is what's known as the recharge basin area. Thee was a sludge drying bed in this area here that was closed out. The three recharge basins you see the different colors because, when this aerial photograph was taken, I guess two of them had water in it. One of them didn't. These basins

took non-contact cooling water from Northrop Grumman and a/c units.

The third site was known as the salvage storage area and it's components were being made and scrap material was taken and stored in this area here. In the early nineties we came in and checked samples throughout and pretty much what we found was there are definite problems in Site 1. There are some smaller problems at Site 2, although we did come back and wind up excavating the whole bunch of soil from this area. And Site 3, the probable cause of the waste material is just scrap metal. We didn't find much of a concern. What I would like to show is a series of some of the monitoring wells that were installed as part of this program around Site 1. Ground water once again goes to the south and the east here. What we normally do in this type of investigation is install monitoring wells to the south of the site and install some monitoring wells up-gradient and we are looking for a pick-up in contamination across the site. We did find it in this location. We also put some wells here and here. To investigate this site, these wells here serve to

look at the down-gradient on this site. And, for this site here we put in monitoring wells down-gradient. As part of the separate investigation Northrop Grumman scattered a lot of wells on their property too. And some of the wells served as our up-gradient up in here. You also see this area here. It is an area that we referred to as HN-24. HN-24 is actually a monitoring well name. It is an "N" as in Nancy. At this time there are no-known source areas. Later on we were able to identify a source area in this plant. But, we had some trichloroethylene ground water contamination in this area as well. The other thing we did-- this, here, by the way, is a G.I.S. system. What the system does is it links all of the locations of the points. It links all the location of the points to the analytical data base. And at this point in time, I forget the exact count, but I think we have over a hundred thousand individual data points. But, what I wanted to point out here, as part of this investigation, we had some concerns in this area and we installed monitoring wells out in the neighborhood here and here and it's not shown, maybe pick it up on here, but there's another set

of wells out here. You want to go to the next one. Okay, there are just a couple of things I would like to talk about on this one. When we put these wells in, what we normally do is sketch out or generate what we call iso-concentration contour maps, kind of like topographical maps. This here represents locations where we had greater than one thousand micrograms per liter of chlorinated solvents in the ground water. For comparison, the M.C.L.s, the M.C.L.s being the drinking water standard, was five micrograms per liter. So, based on this data, we were concerned about this being a significant source area. The yellow, I guess there's a couple of yellows here being the next line out is 100 micrograms per liter and you could see that area is actually much bigger. We get down to the 10 micrograms per liter range and the five, once again, being the drinking water standard. You know, we are pretty much out in this area here. What we are looking for is source area. That's primarily what this shallow ground water investigation is concerned about. We use the shallow ground water data. Any time there's been a spill into the ground water it usually shows up in

the shallow first. There's exceptions to that but, this is pretty much standard. The other thing I would like to point out on this map are these squares with the "x's" through it. Each of these represent production wells. Production wells generally being a thousand G.P.M. wells at Northrop that Northrop used. The majority of the water was used for their non-contact cooling a/c units throughout the facility. The water would be extracted from these wells and it would wind up in a series of recharge basins throughout the facility. On the Navy property there's these three known as, once again, Site 2 recharge basin area. Northrop Grumman also had more active ones here and there's some more further to the south. What happens because of these recharge basins and because of these production wells is that the ground water flow direction changes drastically. And it also moves vertically much quicker than it normally would. Ground water here is recharged at a depth of about 50 feet below the ground surface. That's where the water table is. Ground water in these wells, these are all variable but extracted around 500, sometimes 600 feet below the ground

surface. So, what you wind up seeing is shallow ground water moving a short distance and sinking 5, 600 feet. The same is true down here.

I did mention that we did have a third set of extraction wells out in the neighborhood and these were located out here. The second map shows what we consider to be the intermediate depth ground water. It is generally about 100 to 150 feet below the ground surface which you will notice from this map there's a couple of things. One is that the contaminated areas are now much further out, areas where drinking water standards are exceeded. Some cases aren't truly bounded in the neighborhoods. We have 10 micrograms per liter range. Keep in mind too that most of this data from the 1995 timeframe. That Northrop Grumman, the Navy, are working with New York State, just checked a good bit more data since then. Some of these micrograms are changing. This area here no longer is nearly as contaminated as shown on this map. But, basically, what we see is a lot of this contamination is a thousand micrograms per liter range having originated most likely from the Navy's property and, perhaps, some source areas up in here.

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MR. MCBRIDE: Dave, are you going to be able to show us this new data for comparison?

MR. BRAYACK: Not at this point, no. This is being worked on currently by Northrop Grumman and the State. We do have some of their maps but most of their maps are-- Steve, can you address that?

MR. SCHARF: Well, the feasibility study is about to be finalized. And, as part of the feasibility study, Northrop has put together ground water model based on the current quarter monitoring that they do on the pump and treat system and also where the contamination should move over time based on clean ground water flow dynamics, that's going do be released shortly for public review. And that will explain-- that will answer a lot of your questions. I think, though, what you see here, a lot of it in some ways has remained uncharged because Northrop Grumman was pumping somewhere between 15 and 250 million gallons of water every day, treating that water and then discharging it back on site so recycling a lot of water so a good deal of the contamination has remained on site.

MR. MCBRIDE: Okay.

MR. SCHARF: Keep in mind, Jim, an extensive

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amount of contamination in the ground water here. It's hard to find a field for the area but when you start at the north end of the Navy property and go down to the south end of Grumman property you are looking at probably 6,000 feet, maybe, you know, almost a mile and a half.

MR. BRAYACK: That's why I am looking at this and saying it is quite extensive.

MR. SCHARF: Exactly.

MR. BRAYACK: This is just the northern portion of it goes much further.

MR. SCHARF: This is the intermediate zone.

MR. BRAYACK: Yes.

MR. SCHARF: You call that extraction. You meant monitoring well, that one.

MR. BRAYACK: These are monitoring wells. As part of--

MR. MANGANO: This is referred to as the plume.

MR. SCHARF: That's correct.

MR. MANGANO: I remember back in '91, we saw maps that this went south of Sunrise Highway as far as it can.

MR. SCHARF: Sunrise Highway, from Grumman--

MR. MANGANO: From Grumman.

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MR. SCHARF: I have seen even that.

MR. TRINGALI: South-east.

MR. SCHARF: Past Central Avenue going toward Hempstead Turnpike where the Bethpage Water District wells are located and that I would agree with.

MR. MANGANO: You are monitoring drinking water standards. But do we drink any of this water? Is any of this water pumped to be drank?

MR. SCHARF: Some of this water, from the Grumman property with contamination in it has affected the Bethpage Water District wells. Those wells that have been affected all have treatment on it to remove these contaminents. We are talking perchloroethylene and trichloroethylene.

MR. MANGANO: What about Plainedge?

MR. SCHARF: It has not affected those wells. Those are further south.

MR. MANGANO: Plainedge is right on the Hempstead Turnpike Road borderline.

MR. SCHARF: Plainedge, itself, I'm not sure where their monitoring wells are located but just to let you know, all monitering-- all drinking water wells in all of Nassau County are all

monitored quarterly to make sure that they don't have these contaminents in the drinking water supply. All of Nassau County has potential problems because of industrialization, commercialization and residential development. It has that potential to become affected by these contaminants.

MR. MANGANO: I believe Bethpage monitors monthly.

MR. SCHARF: Right, because they have been affected; that's correct. They now moniter monthly. In fact, Nassau County just sent me something on that. They have a whole chart for all of the district wells in Nassau County.

MR. MANGANO: Are you with the D.E.C.?

MR. SCHARF: Yes.

MR. MANGANO: They had to close it up last year. I don't know if you were there but the representatives of D.E.C. gave an update on what's going on on the property and they recorded that for the first time has actually receded, is that correct?

MR. SCHARF: Based on the information that Grumman presented, on the I.R.M., they have cut off contamination along Central Avenue. However, there

is contamination south of Central Avenue that's gone beyond the recovery wells that are now being operated. That's part of the contamination that's affected Bethpage Water District wells. It's gone deep. As Dave was saying it was drawn down deeper by the Grumman production wells and then so it moves slower but it is deeper and it is off site.

MR. MANGANO: How much deeper?

MR. SCHARF: It varies. It can go down I think as far as three, 400 feet deep.

MR. COLTER: It is kind of a unique set-up with regards to the way Northrop Grumman, the Navy and the D.E.C. are working together. Particuarily the Navy's moving out on it's own program. And we basically are the lead authority as far as we make our decisions what we want to do. We run them by the State. As long as there's no real heartburn we proceed and the Navy, actually this data that you are seeing, Dave said was '91 to the '94 timeframe, we actually based it on this map. We were proposing our own ground water treatment system on our property and a little bit on the Grumman's property to address basically what Northrop Grumman is doing to contain it on the Navy's property. The D.E.C.

came in and said it didn't make sense for us to clean our ground water. It goes down-gradient. It mixes with Grumman's contamination and really didn't accomplish anything. Why don't we work together? For the last four or five years, that's exactly what we have been doing and the culmination of this feasibility study we pretty much saw what the remedy was going to be. Northrop Grumman moved out and conducted that system when we called it interim remedial measures, which means you could put a system even though it hasn't been publically reviewed or anything like that. And, that's what happened. Northrop Grumman did that and we are going to show you some maps. But the ground water issue, as Steve said, that's being run by the D.E.C.. The Navy at this point is a willing participant as is Northrop Grumman. Collectively we decide the-- we will let Northrop Grumman do the bulk of the work since they had a good computer model. They had been quarterly sampling off-site for years. The Navy's agreed just to let them keep running that. I know ground water really is the big issue but we are really going to have to wait until the D.E.C. gives a similar presentation. And I

offered to Steve that he could make that presentation here at the RAB, if he so chooses, as part of his community outreach program. That's going to be a D.E.C. decision.

MR. SCHARF: We are working on that.

MR. COLTER: What we are doing here is try and get you a flavor of what the Navy has been doing for the last ten years here, what's left to do on the Navy's property. And we will get a little bit into our action with the ground water. But all ground water questions are going to be handled by the D.E.C. as part of their community outreach program.

MR. MCBRIDE: Jim, I have a little confusion on that, though, but, under the RAB, we are dealing with contamination and one operational unit is the ground water situation. So even though it's being dealt with by the Navy, my reading of the RAB document that we still should be involved in the advisory capacity or review capacity.

MR. COLTER: And, I will let you know what the Navy's actions are as part of that tonight. I will show you how the Navy is participating in this overall program. Like I said, it's unique because

Northrop Grumman, being from the private sector, does not have the same Congressional mandates as the Navy does and this RAB has a Congressional mandate where we spend Congressional dollars. We have to keep the community informed. This is a little different because Northrop Grumman doesn't have that requirement. So a lot of the information that you are looking for I don't have.

MR. COLTER: It's being put together by Northrop Grumman and I just don't have it and it's voluminous but we are going to hopefully use the RAB for the outreach. I'm going to show you what the Navy's involvement is and we are agreeing or disagreeing with certain things that happened. As to the updates, we will keep you informed of what's going on.

MR. MCBRIDE: I would think we would have to if the Navy--

MR. COLTER: Not all of it.

MR. MCBRIDE: If they're funding a portion of it they're still part of it. And, I would think that under that mandate that they have to be part of the whole.

MS. HARE: You have to remember they are a

private corporation here and they have property that belongs to them and they're doing-- they opted in the beginning to take on a certain responsibility here. Not all contractors who have operated Government facilities do that. They just stand back and say, we are not taking any responsibility here, you know, the Navy can clean it up and then tell us about it later. That happened to us in other states but, what we had going here was a contractor that did step up to his responsibility and did say that they were willing to go ahead and they had property of their own to be concerned with. So it's kind of Northrop Grumman's objective here is to approach it as a whole total issue for them to work on the Navy's property as well as their own property.

MR. MCBRIDE: Okay.

MS. HARE: We have to recognize that they are participating with us. They're working as Jim said with Jim and with the regulators and so on but, you know, as the program manager, I can't go to Northrop Grumman and make demands here.

MR. MCBRIDE: I am not suggesting that but if the RAB is operating again maybe we have to get a

letter of intent for what the RAB's purpose is in regards to ground water. As I read it, the Navy had a ground water contamination. The RAB is part of the ground water contamination. If the Navy has chosen to buy in to this big program, which makes sense, from what I am seeing so far we should be part of that process.

MS. HARE: We will share all information with the RAB. I mean that goes without saying. The Navy-- well, okay. What we can't do is we can't force the contractor to do a similar kind of thing. If you understand where I am going with this.

MR. MCBRIDE: Correct.

MS. HARE: Ultimately, I think you are going to see it all any way. You see any information that we produce in regard to any of this becoming public information and thereby that is shared with the RAB and with anybody else that wants to see it.

MR. MCBRIDE: If the Navy is part in the funding of this, does that not make all the material public because the Navy is part of it?

MS. HARE: No.

MR. SCHARF: You have got to remember that as Judith was saying, the Navy property was operated

by Grumman. Grumman has their property separate. Navy Property Class 2 and it has it's waste site under New York State law E.C.L.. It is Grumman property. However, the Navy does not sign a consent order with the State. They just sign a memorandum of understanding and we broke off operational units to deal with sources of contamination. Site 1 on the property and the area behind Plant 2, which is Grumman property. And, together, the Navy has signed on with Grumman to produce a feasibility study under New York State law that will address Operational Unit 2 which is the ground water issue. And, as Jim was saying, that that is something the State is handling. I have a draft proposed plan on that but we keep changing it because there's a lot of different groups putting comments in it before we can even get it out to the public. I am hoping that we can finalize that within the next four to six weeks. I am working on that among a lot of other issues that's coming. So, the Navy has agreed to help fund Grumman on the regional ground water remedy.

The other issue that wasn't mentioned here, there is a third site, a Hooker Ruco site to the

north, which originally, we were trying to produce a joint feasibility study and, for a number of reasons, that took three years of negotiating and working on it and finally it fell apart. In the meantime the State, as Jim was saying, told Grumman to put the I.R.M. on line and they did and it's working quite well. So, what happens is, under New York State law, the D.E.C. has to hold a public meeting and the D.E.C. is requiring Northrop Grumman under this order upon consent with the State, to produce a feasibility study for which the Navy has agreed to be a part of. So they're more or less like going along for the ride on that. And they will work out between Grumman and the Navy, how to handle funding. For example, on the long term monitoring ,that we would be putting in as part of the overall remedy, the Navy is agreeing to install a number of additional off-site monitoring wells at a great cost because the deep wells are very expensive. So, that will be handled under public meeting that we will be putting forth shortly. However, because it's tied together the Navy is discussing the ground water issue because they have contaminated ground water and so they

want the RAB to know that, as part of the Navy property, it's a source area ground water contamination. And as Jim was saying we will be concluding that issue shortly.

MS. SEIDEN: If I am correct, I think the Navy has assumed responsibility for the contamination that was found in the contaminated, either one or two of the Bethpage wells; is that correct?

MS. HARE: The Navy has assumed responsibility for the Navy's property. However, our contractor on board that property, I mean always when you are the property owner you are responsible. However, our contractor, who has operated that property for 50 years, has agreed to share that responsibility. That's a good thing because, as I stated earlier, that doesn't always happen and, in some cases, the contractor, actually in one of my facilities, just vacated the property and left and said, "sue us." That's very expensive for the taxpayer when that scenario happens. With this contractor, he is saying, we would rather get in here and share responsibility now and not have to battle it out later, in essence.

MS. SEIDEN: My question is: Is there any way

of knowing how long those wells, those contaminated wells, were used and how long the people of Bethpage drank the water-- contaminated water from those wells before it was discovered?

MR. COLTER: That would best be answered by the Water District that supply the water. I am not sure if anyone is representing them here tonight but they would know the first times that they determined contaminants in their well and what they did about it.

Now, I can tell you that when the first well got identified by Bethpage, Northrop Grumman went out and put a treatment system on one of the wells. Since then we have been tracking the contamination towards two other Bethpage plants that hasn't reached it yet as a safety factor. Northrop Grumman put another set of treatment systems on the second series of wells and the Navy paid for a treatment system on the third set of wells. So, my take on that, your answer is you haven't been exposed to drinking contaminated water. Because as soon as the first detections occurred Northrop Grumman went out, the Water District brought it to their attention. They put treatment on the wells. The

other two haven't been impacted yet but they also have treatment on them now.

MS. SEIDEN: Can you tell me when contamination first came in those wells?

MR. COLTER: The District can. The District can tell you that because they sample the well but I am not sure of their frequency. You would have to go to the Water District for that answer but I can tell you, they're mandated and they would not be supplying drinking water that's contaminated. I could guarantee you that.

MR. SCHARF: Nassau County has been sampling all of the wells for a long time. I don't know how long exactly and the Health Department would be best to answer that question as to how, when the first time contamination was identified. Was it sampled before that and, generally, if they are sampling it quarterly and a well is identified as being contaminated that wasn't before. It just doesn't suddenly show up as being high enough to be unacceptible. It, generally, given the detection limits that we have today, it shows up at very low numbers, way down in the part per-trillion range.

MR. MANGANO: That wasn't what she meant.

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MR. SCHARF: We can't answer that question tonight. I don't have that information. But, I am willing to bet that they realized this was coming.

MR. RESCH: Would that be part of that feasiblity study that you are working on now, are contaminants that might have gone into the wells, yet, it is true we might be monitoring them quarterly, does anybody know the level of the contaminant. Maybe if I drink one glass of that water and I die or if it's over the next 50 years or something.

MR. COLTER: The thing is this, unfortunately there isn't someone from the Health Department here tonight to answer those, you know, health or risk-based questions. So, they couldn't make it tonight but we don't want to put you off. I would like to say we should let Dave finish his presentation before we go on to the questions and let him present all technical information and then we will go to a question-answer period and it be a lot more helpful.

MR. MANGANO: So you don't leave with fears, and I am not the person, the authority to give you this answer, but I have been at many hearings since

1991 where those questions have been asked and addressd. First of all, statistically, all that data is available at our Water District. Their monitoring exceeds Nassau County standards which are quarterly. They monitor monthly. I am positive of that.

MR. SCHARF: That's true.

MR. MANGANO: I believe you will find that Northrop Grumman had to monitor itself as well and were sent to another independent laboratory and that is available as well. I know at other public hearings it was asked had we ever drank that contaminated water? And it was answered, no. But, I suggest that if you go to the Bethpage Water District it has that information. And they would be more than willing to share it with you, volumes of it.

MS. HARE: Dave.

MR. BRAYACK: Yes. This is a very complex issue. Getting focused back on this again, the incidents of contamination production wells are basically pulling what was originally shallow ground water contamination back into them. These production wells will pick up-- ultimately pick up

this contaminated ground water, dilute it out and distribute it out it into various recharge basins. It was their concern particularily out in this neighborhood where we started seeing no contamination in the ground water, which would be about 50 feet below the ground surface. But, if you went another 50 to 100 feet below that we started seeing contamination. Okay. I don't know if you will notice but as we continue our discussion our maps keep expanding outward. We had to switch maps here because our aerial photograph doesn't cover the area but, once again, here's Plant 3 at the Navy, part of the former Northrop Grumman areas, the residential neighborhood to the east. What we wound up doing is we kept seeing ourselves continue to move out to the east. What we have here is, basically, what we consider to be a primary source contaminant flow pattern. This is where we saw the hundreds and the thousands parts per billion range. Production wells make this undiluted. It may be in the five to fifty part per-billion range and then recharged it here. As Steve had pointed out earlier throughout this whole facility, approximately 15 to 20 million gallons per day of ground water were

being pumped around in the summer and what that did was resulted in tremendous outflows from the recharge basins. Ground water from these recharge basins would flow in areas and directly wind up being intercepted in a production well scattered throughout. We put out and did some computer modeling and we asked the question what is the worst-case scenario? How far out to the east could this have gone? And what we did is we came up with this projection. And, once again, this is an absolute maximum prediction as to where contamination from the Navy property could have flowed into the eastern direction. These concentration amounts we measured out here were generally 10 to 20 parts per billion. Drinking water standards are five.

MR. SCHARF: Can I ask you a question, Dave? Betty, this may answer your question that you have been asking for a while on that. Betty, I asked the first question. The shared area is a modeled, the ground shared area around Bethpage all the way around toward Bethpage State Park.

MR. BRAYACK: Yes.

MR. SCHARF: When was the model done?

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MR. BRAYACK: It was done as part of the Navy's feasibility study.

MR. SCHARF: Back--

MR. BRAYACK: '94,'95 timeframe.

MR. SCHARF: That's also part of the figure 5-2 of the Grumman RFI report.

MR. BRAYACK: That's correct.

MR. SCHARF: That's your data you shared with Grumman because I was asking that to Carlo Sangiovani. He wasn't sure what that was new you are explaining to me, yet I maybe that explains that model that was run six years ago to predict the area would be the maximum. Dave, go ahead. Continue with what you were saying.

MR. BRAYACK: This would be the maximum extent that it should come out.

MS. SEIDEN: Dave, did you ever measure out there?

MR. BRAYACK: We put monitoring wells here, here, here. Northrop Grumman had monitoring wells down in here and even further to the south. So, basically, everywhere we showed the maximum possible extent to cooroborate that we had ground water data pretty much confirmed it.

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MR. MANGANO: Since this date, three to five years old, it just begs the question, is this for today's purposes, do you find the plume decreasing with present methods that are in place or is it having no effect?

MR. BRAYACK: What we know, and we could talk about this. Like I said, back at the time in the '95 timeframe, the Navy prepared, basically, an extraction well in this area that contain-- this big area-- the most contaminated ground water where it's at. This here, this is an example of something that came out of the Northrop Grumman. It is a current figure. Steve, you might have just got this as well.

MR. SCHARF: Right; I was mentioning that to you, Jim.

MR. BRAYACK: For reference, once again, the Navy property is right in here. What is known as particle track analysis. And, it's a very sophisticated computer model and what the model does is it says you release particles at different areas. And, what this is is an example of particles being released into the ground water and then it's a time model. It says, okay, ground water flow as

you will, basically. And what you are seeing here is particles released from the Navy property would flow down here. The red to yellow to green to blue to purple to black. What those represent would be the depth below the water table or actually goes on this. These are darker. Steve, how deep to the on-site containment?

MR. SCHARF: I think about 500 feet deep. You may want to just explain that as the color changes on that element that he is going to different model layers deeper in the ground.

MR. BRAYACK: That's right.

MR. COLTER: Containment is a separate model that Northrop installs. This is I.R.M. that I talked about earlier. This is what Northrop installed before we have the final remedy agreed to. This is what we all thought would be the final remedy and Northrop went out and installed it about a year and a half ago. It's been operating for about a year, year and a half now. This is showing, this was what the design was based on and, basically, I will let Dave continue. He will get to what it means but this is the I.R.M. as Northrop designed it.

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MR. BRAYACK: Basically, a couple of things. One is increasing depth. Basically, all the shallow ground water, 50 feet below the ground surface would have passed through approximately 150 feet, 250 to 300 feet deep, ultimately to 500 feet deep. One thing I would like to point out is when we show these huge flumes and these flumes do get very large because they continue on down here, is that most of this contamination is very deep, hundreds of feet below the ground surface. We are not saying that all the ground water is contaminated. What we are generally seeing are thin lenses or thin layers of ground water contamination moving through the aquifer, primarily from, you know, shallow ground water, getting pulled into different-- In these cases, these are on-site containment wells, one, two and three. And, as part of the system, Grumman has one of their production wells. This is a several thousand G.P.M.. It is a little bit smaller but not much. And, what the entire Bethpage Water District is pumping. The second thing I would like to point out is basically all the contamination from the Navy properties, especially in the area, is currently being contained by these on-site

containment wells. The problem has not been solved but is now stabilized and, Steve is working on the final remedy for the entire area and that's somewhat involved in because it's directly from the Navy yard. What goes beyond here is a separate action.

MR. COLTER: When Dave says what's beyond that system, to clarify, that what has flowed passed the boundary before we got this system installed. As of now, as you can see that system has been running, all the ground water from the Grumman-Navy property is contained so it's basically not flowing off-site. It's being recycled and cleaned up and re-injected. But, before we put the system in obviously contamination already flowed passed. That's what the final part of the remedy is going to address. Anticipating that, that's why we went and put these treatment systems on the water supply well because we already know that it had flowed off-site. So, we took that precaution and this precaution immediately. So, we're getting there.

MR. MANGANO: Your final remedy addresses the off-site contamination you try to recapture that off-site.

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MR. COLTER: In some way it's too early to try and explain that. We haven't really made a final decision yet on that.

MR. MANGANO: Right. Okay, that's what--

MR. COLTER: It will address the off-site and, you know it may, at this point, we are not sure. We have treatment on the well. That maybe all we have to do. We may have to do something else inbetween the well and the Grumman property. That decision hasn't been made yet. That's what the D.E.C. is working on right now.

MR. MANGANO: When you say the decision, the decision is to either do it or is the decision meaning to try and identify it or--

MR. COLTER: It's been identified and that will be in the feasibility study. When you see it, the feasibility study is a book that's six inches thick so--

MR. MANGANO: That's why I am asking you.

MR. COLTER: It's been identified but the D.E.C. hasn't made a final decision, as to what is, what they want us to do. We have got the supply well protected. That may be all that they require--

MR. MANGANO: You will report on that at

another RAB as to where we are going?

MR. COLTER: Steve will report as part of his thing.

MR. SCHARF: We could-- actually, if you want to combine that public meeting as a RAB or--

MR. COLTER: We will talk about that--

MR. SCHARF: We will go forward with that, Ed, in either forum, whether the State does it or the Navy does it, just as long as you know, we know how it's addressd.

MS. HARE: It will be communicated.

MR. BRAYACK: Okay.

MR. SCHARF: I have that here tonight. It's a draft copy but it's not released yet. We are working on that so, it is, it is in print and it's going to be released shortly.

MR. MANGANO: Okay, but we can't get a copy now?

MR. SCHARF: No, because I still have to get additional comments from all the reviewers on it.

MR. MANGANO: Thank you.

MR. BRAYACK: Now, just backing up here for a second, and I am going to be done. I think Marlene will be talking in a little bit but, basically, as

part of the ground water investigation throughout the Navy property. But, again, we are looking for the source. The solvent contamination came from somewhere. The question is where did it come from? When you have these contours like this it basically points back to a source area. There's a thousand parts per billion. This is a possible source. When you go up-gradient it's relatively clean. As soon as you hit that you start finding contamination. This is Site 1. Marlene is going to talk about the existing source area treatment system on this. The other thing is based on these other contours. Yes, there is some other ground water contamination. Most of it has been resolved or addressed.

That pretty much concludes my presentation.

MR. MCBRIDE: Dave, I am not good in hydro-geology. Could you give us an overview of the make-up of the ground water and what's being affected?

MR. BRAYACK: The makeup--

MR. SCHARF: Like is it sand or--

MR. MCBRIDE: How is it you have identified a track? Give us a little flavor on it.

MS. HARE: The layers you're talking about?

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MR. MCBRIDE: Yes.

Any confining layers there, how is it getting between the depths? Is it just one open strand layer?

MR. BRAYACK: For the most part, the aquifer through this area, has one large unconfined unit to a depth of about 700 feet below the ground surface.

MR. MCBRIDE: Oh.

MR. BRAYACK: Clay lenses are several feet thick. They are generally discontinuous, perhaps, a few acres in size. They slope at an angle. We were working with one clay lense here that sloped about thirty feet over 150 feet and then just ended. So there is no real confining unit until you hit the Raritan area, the depth of about 700 feet down. A lot of the deep monitoring wells are going to that depth. Okay.

MR. MANGANO: An average depth of the aquifer is what the water that's running through is.

MR. BRAYACK: The water starts at a depth of about 50 to 60 feet below the ground surface and then the water is continuous to about 700 feet until it hits this clay layer and the clay layer-- I will give you the exact dimensions-- is about 100

foot thick and then there's another aquifer underneath that and the aquifer underneath that is not typically used just because of it's depth. A lot of the contamination that we see here. You could see the plume being pulled in this direction here and that's because Northrop has a series of production wells along their side. If these weren't running you would see this contamination growing in this direction here. So, it's really the operation of the production wells and the recharge basins which design ground water flow through this area. Does that answer question?

MR. MCBRIDE: Yes, I didn't realize that.

MR. COLTER: Okay.

MS. SEIDEN: Could I ask you another question about the water? It seems to me that I read in one either the base line survey or one of those books that most of Long Island draws their water from the drinking water from the upper glacial aquifer but not in Bethpage.

Now, is Bethpage the only area that doesn't?

MR. BRAYACK: No.

MR. SCHARF: No.

MS. SEIDEN: Because is that upper-glacial

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aquifer in Bethpage contaminated?

MR. BRAYACK: The upper glacial aquifer is variable thickness but it's generally within the upper 50 to 100 feet below the ground surface.

MR. MANGANO: Our drinking wells are about a thousand feet deep.

MR. BRAYACK: 500 to 700 feet. Over time the original drinking water wells throughout this area were in the two to three-hundred foot depth and, there is a problem with some wells with fertilizers, nitrates in particular plus just that it's an industrial area. And, over time the wells kept getting deeper and deeper.

MR. MANGANO: Nobody was able to correctly monitor the water all those years through all those levels, so maybe that's what this woman is trying to bring up.

MR. KELLY: The upper-glacial aquifer in Nassau County-- the public supplies always are deeper. It's been--

MS. SEIDEN: I am quoting what was in your book.

MR. KELLY: It hasn't been used since the beginning of the century, basically in most areas

in Nassau.

MS. SEIDEN: Is it already contaminated? Is that why?

MR. KELLY: Mostly from cesspools, I would say, nitrates from septic systems. I think probably the major source of contamination in the upper glacial. It's been a long time and I would say none of the, way out east there are still some shallow wells that people have private well and irregation wells, think like that but nobody here drinks the upper glacial.

MR. MCBRIDE: Where do we define that our water starts at about 50 feet down to about 500? Where does this upper glacial level define itself in there?

MR. BRAYACK: It's in about the upper 50 to 100 feet. It's not a realistic difference. As you are drilling down-- the geologist really, the hard-core geologists will look at it. You could identify one interval as one and the other as the second but--

MR. KELLY: It's a little courser. There's no, I mean it's basically just sand and gravels. It is just a little bit coarser up top.

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MR. SCHARF: As you move closer to the south, sure you get gardeners clay, which is thick, and I believe that defines the upper glacial aquifer there. As you move north it's less. The definition is softer in terms of where it separates but you can go down a hundred feet and find changes in the type of sand, the color. As you move to the North Shore you are going to find large boulders from the Adirondacks that were dropped there by glaciers thousands of years ago. That's why if you go up to the North Shore you see people doing excavation and you have these big rocks. If you go further out east, Stony Brook area. I was just there today. And, it's interesting. There are a lot of books on it if you want to read up on it.

MR. COLTER: At this point, I would like to introduce Marlene Lindhardt from Foster Wheeler. She is going to focus in on the Navy site on which, at this point, if you recall my two earlier presentations, I gave an overview of what the Navy has been doing over the last ten years and we, again, we went and did sampling at sites two and three. We did soil excavations at two. The only contaminant of concern there, Site 3. We found a

lack of contamination with soils and our own real source area problem was Site 1 as Dave pointed out. We asked Marlene's group a couple of years ago and we have a very complex soil problems in Site 1 with PCBs, metals and volatile organics being the same soil organics that Dave is seeing in the ground water we are seeing in the soils and, hence, that is the other source. We brought Marlene's group on to try and address the V.O.C. portion with an innovative technology known as extraction. And, once we conclude that we will be able to address the metals and PCB residuals, basically that would close out our Site 1 source area.

MS. LINDHARDT: Let me just go through what we have done. We have been out there since 1998. I will give you a description of this. I am really talking only about soil, not ground water here. But I could go through a description of the system and where we stand today. This is Site 1 which is on that first handout that Dave handed out. You could see it on-- it's about four acres. We were just talking about soils mostly sand and gravel. We do have some clay lenses out at the site. The water table right now is 54 feet below ground surface.

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It fluctuates by about two feet in a given year. It was at 54 feet. The last time we were out there was the end of December. So that's pretty recent and the volatile organic contaminant that we are dealing with are tetrachloroethylene or PCE. tetrachloroethylene and TCA, and trichloroethylene, those are our major contaminants of concern. The purpose of the system was to resolve volatile organic compounds from the soil and the way it works is that we have a well on-site. We inject air into the soil which mobilizes the V.O.C.s and then we have an extraction well on-site which then captures the vapors and then treats that through the carbon system. This is the layout of the site. I don't know how well you can see this but these are the extraction wells. Basically, lined up there a little bit lighter gray here, here, here. They pretty much are on the borders of the site and then the air injection well in the blue so it really was designed around a radius of influence of what we expected to get by injecting the air over the entire site. This is the treatment building here which houses the equipment. The site and Plant 3 will be at the top of this screen. You have got 11

air injection wells, thirteen vapor extraction wells, and 12 soil vapor measure monitors. Those are around the perimeter of the site and that's what we use to monitor whether we are capturing the vapors, making sure that what while we are doing this we are staying on the site. The extracted vapors then are treated through carbon inside the building. The air injection wells are about 50 to 55 feet deep and the air injection wells are extraction wells are 55 feet deep. The injection wells are 65 feet below ground surface and there is PVC. The vapor extraction wells are 60 feet below ground, again PVC. The system is shut down in the winter time because it's above ground. We don't have pipe out there so, if you saw the site it is all above ground. Vapor measure monitors, we have them deep and shallow so there's 12 but there's six clusters, two wells per monitor. This is a description of the treatment system inside the building. There is a 500 gallon moisture separator. There are two blowers, one injection well and one for the extraction well, same size. And we have 1800-pound activated carbon units. Vapors go through one carbon unit and then a second one. We

monitor vapors so that we know when it's time to change carbon. We don't have to worry. We have that second one-- back up while we do our change up. The system has an alarm and an auto dialer system. We basically get paged if the system goes down and these are the items that would page us: loss of power, if we have no vacum at an extract blower, if we lose the extract blower itself, shut down or the injection blower shut down. So, we are called and we come to the site if there's a problem with the system. It's all automatic. We basically constructed the system in the Summer of 1998. Dave's group did the bulk of the design. We did some finetuning of it and we have been operating it for the most part on 24 hours a day during the season. It was operated from July of '98 to December of '98 and we shut down for the winter and came back up in March and we just shut down actually, the last week of December. We had a nice season this year. We were able to go a little bit longer. Part of our operation maintenance, again, we have the 24 auto-dialer which calls us to the site if we need to come out but we do make regular trips. We come out every week just for equipment

maintenance, changing bits and filters and upgrading whatever might need to be upgraded and changing oil. We are sampling the vapor on a bi-monthly basis and then we have a regular environmental tap monitoring program: This is just a figure that gives you an idea of removal of volatile organics over time. This is pretty typical in a system like this. When you first turn a system on you will get a huge amount of volatiles and it decreases over time so if we see some variations they are mostly due to weather. This actually is hurricane Floyd. We had some issues there with not only all the rain which makes the system wet and inefficient but we lost power for a while, AT&T and we lost the auto-dialer for a while, I think. The blue color is total V.O.C.s and then we have some individual compounds that we monitor. The main one we have been concerned with is PCE or TCE which is the color over here. This is dated through actually the 29th of December was that last data point. Since we have been operating we removed over 400 pounds of V.O.C.s through this system. I should mention that there was a pilot system before we constructed this that almost removed about 900

pounds so we have got a significant amount of removal. We are seeing a pretty significant decrease in the VOCs versus what was there on-site back in '96. We do have V.O.C.s in a few small areas. Basically, these three areas and we recently did a program in October of '99. And those were areas that we felt we had some V.O.C.s remaining. We have got issues here with clay lenses. We have significant clay lense here, which has made the system less efficient than we would like to see. And I think that's probably that problem that we have with that in that area. We are looking at a start-up some time in Spring as the weather breaks. We are going to make some adjustments to the system. Right now, it has been operating to address the entire four acre area pretty consistently. We can now narrow in on these three areas where we have V.O.C.s remaining so we are going to do some sampling, turn off the well that don't need to operate and that's going to be able to increase our air flow and our extraction in the three areas that we are concerned about. We will have people out there and we will be able to turn switchs and knobs and check the gauges and basically try and maximize

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our extraction from those three areas, operation through the year two thousand and at that point we can see where we stand as far as the effectiveness of the system. That's basically what I have.

MS. SEIDEN: I have a question: I wonder in the northern part of the Navy property there is a ditch through a wooded area that is supposedly contaminated. And, it runs along the top of the property and seems to end at an area that is the community park. And, it says that park was a former landfill. I wondered if that area had been tested at all and including that ditch.

MR. COLTER: That ditch was identified by the Navy, in the Phase 2 environmental base-line survey that hasn't been issued yet. We had Northrop go out and test that ditch. I could tell you that the tests all came back undetected so that the ditch was tested and we didn't find contamination. We did identify that as a potential area of concern. We asked Grumman to go out and sample for us. We got the results. The reason you don't have the results is because we haven't published that document yet but we did identify it in the Phase 1. That's how you came about it and we did sample it and we are

trying to get that report out to you to answer probably most of the questions you asked.

MS. SEIDEN: What contamination?

MR. COLTER: One report says This is the area of concern. That's all it says. The second one follows up with all the sampling and the results of that you have to work with both reports. We are working to get that second one out to you.

MS. SEIDEN: Does it describe the community park also?

MR. COLTER: Town Park, I am not too familiar with that. That is more of Grumman-owned land. Al, do you know how that's worked? Kay Field is Grumman-owned, but I don't know if that's what she is talking about.

MR. SCHARF: You are referring to Bethpage Community Park, to the north and to the east.

MS. SEIDEN: Right, at the end of the property, supposedly.

MR. COLTER: If you are talking about the park; the Navy back in '94 had a request from the community at one of our public meetings, to sample their residences because of the concern of PCBs on the Navy property. We went out in '94 and we did an

extensive sampling of soil materials. They volunteered their property and we basically did not find PCBs in their property. We also sampled the park and didn't find PCBs in the park and we released all that data to the Health Department for whatever they do with it back in '94 and we also notified each individual resident that volunteered the property.

MS. SEIDEN: What kind of landfill was it?

MR. COLTER: I have no idea.

MR. SCHARF: The first time I heard that--

MR. MANGANO: You are talking about Bethpage Community Park donated by Grumman back in the 60's?

MS. SEIDEN: Yes.

MR. MANGANO: Actually, probably before I was even born. But I heard it was a landfill prior to them, you know, Grumman donating it to us. The only update that I could give you is because McKay Field is a piece of property that we are interested in getting for the community. We have had extensive testing done on it mostly by Grumman because they own it. In doing that, and because there are some contaminants around it, we had asked the Health Department to request that the community partially

be sampled and the Town agreed. I know that you got back some of those results when it was sampled.

MR. KELLY: There were no PCBs found in the community park which had done what the Navy had done, as Jim said, but they did it again. I guess more extensive sampling, and it didn't show any PCBs in the community park at all.

MR. MCBRIDE: Were they looking for anything else or just PCBs?

MR. KELLY: That was the only thing, PCBs, that had come up with Northrop.

MR. MCBRIDE: Okay.

MR. COLTER: One more presentation that I would like to give, basically, it's to give you all the highlights of the technical subcommittee meeting that we had with the regulators a couple of weeks ago. And, after that, for those of you who want to stay and ask questions I will remain here and try to answer the questions or we could go on from there. As I said a couple of weeks ago, in February, we held a technical sub-committee meeting with the regulators. They included the New York State D.E.C., both in Albany and in Stony Brook. The State Health Department as well as Northrop

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Grumman and the Navy. Marlene just gave you an update on the Site 1 Air Sparging System. Basically, that system was put in place a couple of years ago in response to a record of decision that the Navy signed with the D.E.C. to address soils at it's source area. The second part of that, we call that Operable Unit 1 for the Navy. The ground water portion will be Operable Unit 2 and that's what the D.E.C. is going to deal with. So, what we are focusing on is the Navy's actions to clean up the site and ultimately transfer it to Nassau County. The ground water will be dealt with by the D.E.C., down the road, not too far down the road, though. One of the issues that came up was Drywell 20-08 and 34-07. These are two points. If you could pop the map up. These are 23 points identified by Northrop Grumman and during the close-out effort. The extensive sampling Judith mentioned before. Most of us step back or the contractor steps back and say, "You tell us what you you want us to do, Navy." In this case Northrop Grumman went out and did it on their own. We reviewed documents, and made sure that we did our own assessment, put the two together to make sure that neither company

missed anything. What came out of the review was basically three areas: Drywell 20-08, I believe, is up in this area. 34-07 is to the south of Plant 3 and, the area of concern, 22, which is a location of a former underground storage was over in this area. Our discussions were with Northrop Grumman who basically said the Navy would take control of the former underground storage tank AOC-22 investigations, if Northrop would continue investigations of the two drywells. Taken to a point where they propose a remedy that satisfies the Navy and to the D.E.C., and then the Navy would pick up that remedy and implement it where we are at right now with Northrop Grumman's investigations is they have completed two rounds of sampling to date. The deliniation of the PCBs and those dry wells is not yet completed. We do have PCBs very deep. We are just not sure how far horizontally they go and that's the purpose of that investigation. The results of that investigation will be made part of a follow-up meeting. We will see if we can't get Northrop to give us a mini presentation on what they found. If not, we will try to summarize it and we will present it at a

future meeting.

MR. MCBRIDE: Can I ask you, when we were back in November, when we took a look at these two facilities, they had just completed a round of samples.

MR. COLTER: Right.

MR. MCBRIDE: Can you give us at least a flavor of what they have come up with, any hint on those?

MR. COLTER: Yes. That's why we are doing a third round right now.

MR. MCBRIDE: What magnitude did they hit that?

MR. COLTER: I don't have numbers. I am kind of on the periphery of that. Northrop is dealing directly with the D.E.C.. But what I do know is down-gradient of the drywell. We have deliniated the down-gradient horizontal extent. We have found some upgradient toward Plant 3 and that's where the concern is. It's very close to the loading dock. So, that's where we are at. We are trying to find out if it's underneath the dock or to what extent. But Northrop Grumman has to prepare a work plan to the State, and go out and actually sample.

MR. MCBRIDE: The depths are we still talking the 30-foot range?

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MR. SCHARF: I don't know if you were still part of that conference call.

MR. MCBRIDE: I left just as we got into the drywell.

MR. SCHARF: He said the results are in. You have to get the data and he's putting a report together. As Jim was saying they did find in the one direction that still more PCBs toward the building. If I remember correctly he said around 30 feet there were some high numbers down deep.

MR. MCBRIDE: Okay.

MR. SCHARF: Which warranted further investigation.

MR. MCBRIDE: Do you have a time frame when they think they will be coming through with that?

MR. SCHARF: About two months.

MR. COLTER: I don't know exactly; a couple of more months to actually get the work plan which the D.E.C. reviewed and out into the field another six weeks to eight weeks.

MR. SCHARF: He first has to get a work plan from the consultant and he has to get approval for internal contact and get the driller out there, take the sample, send to lab and turn around time

and generally it is two to four weeks. And, then he wanted to use that information and produce the feasibility study which he was hoping would come back which would tell us what they could do about it. And he was hoping to get that back to us before June of this year.

MR. MCBRIDE: We will be able to, as a RAB, see that before it's an aproval document or we even see the approval document?

MR. SCHARF: The way it's working, the only thing that gets approved right now are these work plans to go out and they're submitted. You know, they haven't submitted any final report for us to review. And, generally, the way it works they will submit the report to the Department and then we will review that and then we will comment on it and then finalize it to our satisfaction. Then it gets released to the public, public review.

MR. COLTER: Bear in mind, again, they are the lead on the investigation and if they so choose to come to the RAB and make a presentation they can do that. We are not under an obligation. They're not under the obligation that we are. Once we pick up for remediation they become part of the RAB. I will

obviously keep you informed of the progress between the D.E.C. and Grumman because we are ultimately going to have to approve that remedy. We don't want Northrop having a multi-zillion dollar treatment system that they're not going to install and pay for so the Navy has to request that report to make sure it's reasonably have every reason to believe it will be--

MR. MCBRIDE: It seems more and more the RAB is peripheral. Well you will be informed but it really doesn't form under the charter of the RAB.

MR. COLTER: Again, it is a unique situation because efforts of, I believe, an entity. And, we are in the home stretch. We have ground water where we almost have a record of decision, to just operate a treatment plant and get these cleaned up and we are almost ready to dig soils on-site which, is really our last site and we are kind of in the home stretch in this facility and that also lot of the decisions have already been made. Like I said, Site 1 has already been implemented.

MR. MCBRIDE: It seems like the RAB really is only involved in Site 1 then, in a RAB capacity.

MR. COLTER: Site 1 and drywells.

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MR. MCBRIDE: The Drywell you were saying?

MR. COLTER: I am hoping that Northrop will come and give a presentation but, I will keep you informed I am here. I am giving you the status of it.

MR. MCBRIDE: You have been very helpful with information. I'm wondering what the real official RAB purpose is going to be if everything is being pushed off.

MS. HARE: Maybe I could help a little bit. The Restoration Advisory Board is an opportunity for the Town to come together with the Government to receive information where they wouldn't have that forum if you may otherwise be able to do that other than when we publish other documents and give them to the public library, for instance, in the Repository. It's a way for us to communicate what's happening on that property because, obviously, the public is concerned about that property. I apologize for my back being turned here. It's for the public then to interact, in this case, with the Navy who is the property owner so we can hear, for instance, all of the comments that you have brought up tonight, the regulators can hear those

comments. We can take all these things into consideration. But, one thing we can't do is, is, have Northrop Grumman join completely in to the RAB. Now, they're not excluded from the RAB at all. And I will tell you that in the State of Texas, I have a RAB down there where the contractor does participate in RAB. He comes to the RAB. He sits on the RAB and participates. But, that's by choice. I can't, in other words, mandate that they do that. The relationship between the Navy and their contractor is very clear. It's a contractural relationship. And we have enjoyed some good things here with Northrop in this instance with this facility. In participating in the actual studies and ultimately the clean-up that is going to come, that's a definite plus here. So I would like to convey to you how important that fact is because if that had not happened the Navy would have the entire burden for it's property alone. Resources are short. We are fighting all these other programs. Every time we have a flair up in the Middle East, in Bosnia or wherever, guess what, a big hole is created in the budget and all the other programs in the budget will feel that, including

the environmental money. So, the fact that they are willing to do this I can't emphasize it enough that it benefits not just the Navy, it benefits everybody in this room. Now, we will try hard to get them to come to the RAB and give a briefing-- and I don't know-- I would say we have a pretty good chance that they would be willing to do that essentially. I think they want all their ducks in a row first, frankly, so they will have the right answers, but, I think we have a good chance that they will be willing to do that. But, there's nothing I can do to mandate that, make that happen. As far as our data is concerned, obviously, you know, you have our data and you will continue to have.

MR. MCBRIDE: It seems like some very good things going on. I am just saying, from a committee point of view. As decisions are made, this is what's going to be presented.

MR. COLTER: Bear in mind that the RAB is where the Navy's spends it's installation restoration money and we are mandated by Congress to inform the RAB wherever we spend the money. At this point we are

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only spending money at Site 1.

MR. MCBRIDE: Yes.

MR. COLTER: And, so, that does show that it's a very focused area at this point because again we are in the home stretch.

MR. MANGANO: The bad news is we had a terrible situation in Bethpage. We had a tremendous amount of ground water contamination, ground contamination. On top of that, the Navy left the property so we were basically devistated in a number of ways, both enviornmentally and economically on their property. The good news is this that at least Northrop has used it's money to clean-up the property as opposed to many other sites like this. It used to hire attorneys to fight over what's going to do what. Would that be a fair characterization?

MS. HARE: Very fair indeed.

MR. MANGANO: We would not have been cleaned up as quickly or as far along if this remained a governmental process of clean-up. So, that is why the Navy has tried to work very closely with the County, with the private contractor, to encourage them to spend their money and get it cleaned up.

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MS. HARE: Yes.

MR. MANGANO: The RAB, I really do think is useful. There are volumes of information. I have been doing it for many years. It's just impossible to get all this information and understand, huge. The committee themselves at the beginning had 50 people in technical. So, all your input is important and I think that I found every party very reasonable in making adjustments if something is found. And I could tell you I think there's been hundreds of them that have changed thoughts when we have identified something, so that's an important thing if you find something or bring it up: The Navy is not saying, no. The Navy is saying we will listen, we will see if we can do it. But these are our parts.

MS. HARE: I think we are ready. You had a question?

MR. COLTER: If I could have 10 more minutes to finish up we could just go into questions and answers.

MS. HARE: Is that okay with you?

MS. SEIDEN: Perfectly okay.

MR. COLTER: What the Navy will be sending

out-- and I actually have sent draft copies to our regulators. I haven't sent them out to the RAB yet. We finalized them at the last meetings, the draft copies, and I wanted the regulators to have them in hand for our technical meeting. But I will be handing copies to each RAB member on the next couple of areas that we are going to talk about. Right adjacent to that former underground storage tank site was an area of concern. We just labeled it AOC 20, actual Northrop labeled that during their investigations. Some of the data got wrapped into an area of concern and that's actually how I came about it and it had some detections of metals such as zinc and magnesium and things like that in exceedance of the State's clean-up standards but really no recommendation by Northrop as to what to do with that area. So, as our environmental consultant as to AOC 22 we had him also go over here adjacent to AOC 20 and take additional sampling to further characterize this area. What it turned out to be was a former drywell. We encountered the gravel layer that kind of showed the remnants of a drywell and it matches up with old construction drawings of the property that it

was a drywell. Again, metals were detected in the initial Northrop operation. We took that investigation a little bit further, surrounded that boring to see what the extent of contamination might be. And, we actually removed and sampled the Northrop area and basically commented, re-created the detection of metals and what happened over time. You actually get lucky when you actually scoop the soil and take a sample that you have actually hit the contamination and it's no longer there because it's at the end and that does happen sometimes. It's pot luck. But we did sample around in it, down-gradient, up-gradient; and we basically could not find detection of metals and recommended that, you know, this site is not an environmental concern. That report has gone to the regulators and, again, I will send it out to the RAB for a review of what our draft recommendations are going to be and keep you informed as to the next, you know, what the D.E.C.'S response to that draft report is. AOC 22 again, this is a former underground storage tank just south of Plant 3. Again, Northrop identified this area in their Phase 2 site assessment investigations. What they found

were high levels of total petroleum hydrocarbons. We call them TPH and they are an indicator of free product and petroleum. They found it on the water table at pretty good levels and their thought was they might have a free product layer on the water table which is about 50 to 60 feet below ground surface. We agreed to take on that investigation. What we ended up finding, and, again, this is a report that is at the regulators. I will send a draft to each RAB member. But this is what we talked about at the technical meetings. What we found was pretty much minor soil contamination down to a depth of 20 feet. What we found were polyaromatic hydrocarbons, PAHs. And you will find them along any highway because they're byproducts of asphalt, tire rubber, things like that. Where we first started finding the petroleum contamination it was at a depth of 20 feet. Where these tanks were underground on a concrete slab so, obviously, they must have leaked at some point and started from the slab on down. So that's why the soils were relatively clean from the surface down to where this slab occurred. Right below the slab again, down to the water table, is where we found most of

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our petroleum contaminated soils. We went out horizontally to try and get extent or handle on the extent of the contamination. And, basically, what we found was soils located roughly 10 to 40 feet away from the location. It pretty much did not show any contamination until you got down to the water table. We then went further out to see the extent of that deep contamination and at about a point of about 60 feet radially away from this area we found no contamination in the soils or on the water table. What our recommendation is, the New York State D.E.C. clean-up guidance for soils of petroleum indicates that you have to have contamination with volatile organics and semi-volatiles to trigger a clean-up action. Just having petroleum soils doesn't necessarily trigger a clean-up action and that's called their Stars memorandum. That's what guides not only the Federal Government but private industry in their clean-up of petroleum impacted soils. Because we found a lack of volatile organics and semi-volatiles in exceedance of those guidance values, we have recommended that there is no criteria to clean-up those soils as defined by the D.E.C..

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At this point, that is basically the Navy's recommendation. And, that past part of our technical meeting and the D.E.C. has yet to rule on that determination. Once their comments come back, and we respond to them, that will also be made part of the RAB discussion before we finalize our document. We then said, well, is there a pre-product layer on the water table? And, our consultant did several different tests to try to identify a thickness of free products and the maximum thickness that they identified was, as it says up here 0.2 feet. There is no free product that you might think if you put oil and water together and you see how it separates. We don't have that or we did not identify that on the water table beneath the tank. We did find, since we did take ground water samples, as part of any investigation, we always take ground water samples. We did find benzene, toulene, ethylbenzene and xylenes which were not uncommon as those are components of fuel and oils and because this was a petroleum spill we did find that the BTEX compounds in the ground water. We also found chlorinated solvent that we have identified at Site 1. We have

also identified it to be coming from Plant 3 as somebody said earlier we did-- Northrop did a source removal action inside Plant 3 to address what we found. But, again, since these are ground water issues, and our ground water treatment system is in place down-gradient, we are recommending again no action because the treatment system for ground water is already in place and being handled by the operable Unit 2 discussion by the D.E.C..

The other items that we talked about the technical meeting was first two environmental base line survey. Again, as a history, Northrop Grumman did their own Phase 1 and Phase 2. The Navy's did it's independent Phase 1 survey to verify that Grumman didn't miss anything. We then took all of Grumman's information and tried to summarize it into a Phase 2 document. Again, this document is in the hands of the regulators for review and we are now getting the comments to address. Once we have adequately addressed them we will put that out in the library in public depository for everyone's review. That should be out in a couple of months. We have some comments from the D.E.C.. Basically, their comments are, they're looking for some

information and the information is available in Northrop Grumman reports and there's that problem again with Northrop Grumman being, I believe, the entity. They dealt with the local New York State D.E.C. folks, here in Stony Brook but, I deal with the Albany folks, of the D.E.C. who weren't involved in that portion of the closure. They have some questions. We are going to try and point them in the right direction and answer their questions so we make sure everybody is on the same page here. That will probably take another month or two to actually finalize. Once we do it again I will get the documents out. So about another month or two for the Phase 2 EBS.

Real quick, on ground water. I know we discussed it a little bit. The Navy's portion of this effort at this point, Northrop Grumman installed the treatment plant and those four or three containment wells that you saw earlier. What the Navy agreed to do is to install the monitoring well in the community down-gradient. That would have to be in place so that we can monitor the efectiveness of the system for honestly decades to see how well the system is operating. It's a series

of 20 wells. Some of them are actually down 500 feet. They will take several weeks to install. At that point, once we are done installing our monitoring wells we will turn the sampling over to Northrop Grumman since they have to model all this sampling data. It gets wrapped into a computer-generated model and we make predictions and all kinds of different magic happens. So the Navy's portion of this will be to install the well. We actually have a driller under contract and the money is in place and we plan on being out starting to drill this April as soon as the weather breaks. We have to work with-- we are putting a well on Northrop Grumman property. They have already given us access to the property. We also have install wells in the local community. We are doing that within the area between the sidewalk and the curb which is owned by individual towns. It's their Township right-of-way on the roads. So we are working with the Town of Oyster Bay and the Town of Hempstead right now to get an agreement that we could put these wells in. This long-term well and that we, that they guarantee us access to these wells indefinitely so that Northrop Grumman could

come in and sample them whether quarterly, semi-annually or anually. That hasn't been decided but we need to make sure that Northrop Grumman has access to these wells for as long as they need to to do this monitoring.

MR. MANGANO: Visually, what does that well look like?

MR. TRINGALI: The surface.

MR. COLTER: Six-inch flush mount. Well, it will say monitoring well stamped into the metal and there are several out-- Northrop has put several in. As Dave indicated we put a couple of clusters into the east. All of them are six inch metal tap and is all going to be left.

MR. KELLY: Like a water valve in front of a hydrant. You wouldn't even know it's there.

MR. COLTER: Right now, the schedule as we see it with the D.E.C., as Steve indicated earlier, he's trying to get a preferred remedial action plan out sometime in April and have a public meeting and get the record of decision, that it's being outlining our actions sometime in May. To be honest with you, the actions right now will be to put a pump treatment systen in that's already in, do long

term monitoring. We are going to put the well in in about a month and so most of our actions in this record of decisions are already done. There may be a couple of additional actions but those are the things that the D.E.C. is not yet ready to release because we are still discussing the relativity of those actions. And, as I said before, Steve will brief you or the crowd at large or this RAB and that will be up to them. But, that was highlights of our technical meetings. We have them every quarter before we have a RAB because we like to try and make some decisions and that's all I have.

MR. MANGANO: On the ground water, the actual treatment system that's in place, that's pretty much what's going to be the final treatment system.

MR. COLTER: That's what it looks like that happened that Dave showed you with the particle traction. It shows that all the ground water from Grumman's property and the Navy's property no longer goes off-site, unless it's getting treated and then discharged into the basin.

MR. MANGANO: I went to the presentation and showed that it was pulling actually not only keeping water on-site but pulling ground water on

to the site and treating it.

MR. COLTER: It's a radius of influence. Can you pop that map up real quick. I think what you were saying about pulling the contamination in an instance of ground water in the western portion of the property which is actual off of Grumman's property. The model was calculated based on the pumping rate of this well that at this partner's extent here. Ground water would be captured and pulled in. Down here some of this off-site down-gradient ground water is able to be captured and pulled in.

MR. MANGANO: Thanks. If you want to turn the lights on that's all for the presentations. We could entertain some questions. I know there's a couple people that have some.

MR. COLTER: Betty Seiden.

MS. SEIDEN: I just have two questions and two points that I would like to talk about. I read the minutes of your last meeting and I do believe that in there it was mentioned that there were monies to pay for and advisory for the RAB committee.

MR. COLTER: Yes.

MS. SEIDEN: Instead of the Navy advising them,

which to me looks like a terrible conflict of interest but, you know, for you to be the advisor or the Navy to be the advisor.

MR. COLTER: We are at this point sharing information.

MS. SEIDEN: Right, but that has been considered.

MR. COLTER: That is up to the RAB. That is called technical assistance for public participation.

MS. HARE: Can I talk a little bit about that, so we don't mislead people?

MR. COLTER: I have already given that at a presentation that I normally give to RABs to let them know that availability is there if they so choose to take advantage of it but Judith will.

MS. HARE: There are problems with that, though. The Government does have some money set aside to provide some other assistance, outside assistance. However, those monies can only be authorized if, for instance, the Navy, which is the principal and the owner here of the property, does not have the capability to provide this to you. Now, in this instance, as it is true with our other

facilities, we do have that capability. We have it in abundance as a matter of fact. We have a private contractor on board, more than one, actually. And, so, the capability is there so if, for instance, the RAB made an application to do this, the first thing that they would look at is the fact that the Northern Division is fully engaged in the clean-up of this property. And, in the participation of the Restoration Advisory Board, to pass on the information to you. And in that instance, Jim, tell me if I am wrong here, but, I don't know of one instance where money has been supplied under those circumstances, where the Navy has full capability of doing that and there is a reason for that. That would be like the Government having to spend money-wise to give information to the community and to the RAB which, obviously, from a standpoint of a taxpayer doesn't make any sense at all.

MS. SEIDEN: Except, of course, the Navy is the pollutee. And we are the pollutee or whatever you want to call it.

MR. COLTER: Remember your local Health Department. Your regulatory agencies are overseeing us, very vigorously and they're working for you,

not us.

MS. HARE: Absolutely. This is not a set of circumstances where the Navy can do whatever they want to in regard to the clean-up of this property and then skip town. And, oh, by the way, we have left a whole lot of stuff that we didn't do every step of the way and this goes all the way back to the beginning of this Installation Restoration program. And we are talking about several years back. The State has been involved in our actions here. And, we can even proceed so far and then we have to stop, the State has to review what we do. If they don't like our approach, if they don't approve of our approach, they tell us that and we have to change before we can move ahead and do anything further.

MS. SEIDEN: That's not entirely true because you have all kinds of outs, as I read the baseline survey and the books that you have passed out. You can defer a clean-up. The Governor has given the Navy all kinds of outs if they want to take them.

MS. HARE: We don't have any determinations from the Governor. There is no Governor's determination here with this facility and we will

see it through to it's final conclusion.

MS. SEIDEN: But you can take them if you need them.

MS. HARE: No.

MS. SEIDEN: That I don't know.

MR. COLTER: It's an option.

MS. HARE: Even if the Government agrees to that.

MR. COLTER: Remember that document wa read. The Phase 1 was written in 1998. A lot of actions and discussions with the County have happened since then where they have opted not to take the Navy's Governor's referral option as one way to transfer the property. So, we may be retaining the property that I have described here, Site 1, and the drywell. We will retain that under Navy ownership even though we transfer the rest of property to the County. We will maintain ownership of that land until we get to note that the State says it's suitable to transfer that to the County.

MS. HARE: I can assure you the Navy has spent a great deal of money up to that point in it's studies and in getting to the final conclusion of the clean-up of this property. And, unless we can

satisfy all the concerns of the regulators we are not done and we will be held accountable for that.

MS. SEIDEN: Based on the history of the Navy, as far as clean-up is concerned, it's been there for years and years and you are now cleaning it up because you want to get rid of it.

MS. HARE: We started acknowledging before that there are standards that have to be followed. As to the Enviornmental Quality Review Act, it has to be maintained.

MR. MANGANO: You are right in a lot of stuff that you will read and you will find and it definitely appears that there are outs and definitely paths that were going to be taken that would have definitely not made myself comfortable. We objected to the Governor's determination which we felt would not protect us as well as if we kept the Navy on this path. And, I think that you will agree that the method that we are taking here differs a lot from other models that you have done. In fact, by keeping the property until it's cleaned up. It's not something that you normally do.

MR. COLTER: We do that more often than the Governor referal.

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MS. HARE: Let me explain a little bit about the Governor deferal issue. I only know of one place in the entire United States, one place. And it wasn't even a Navy facility that I know of, where a Governor's deferal actually took place. You could see how popular a Governor's deferal is.

MR. MANGANO: But, you will find that was one of the avenues that the Navy wanted to go on because we argue about it for months for our purpose. Judith has stated it correctly, is that they are not going for a Governor's deferal but you may find it in the record. If you are reading back in the records--

MR. COLTER: All that is an option that the D.O.D, has come up with to give the Town control over the entire property to bring a developer in mind while the Navy continues to clean-up. No is definitely a bad word because defer does mean delay. It means that we continue to do our clean-up as we have here for ten years, investigation and clean-up, but the Town could come in and authorize the entire property. Now, since they have denied that, that avenue, we will retain that portion of land under Navy ownership. We do control how that

property is used and, not that it will happen, but, it buts up against a lot of entrances of Plant 3. If the Navy so chooses to say you can't tresspass we are within our rights to do that. The Navy will not do that, however, but that's the difference between retaining property and giving it over with contamination under a Governor deferal. That's the difference. It's not an avenue for the Navy to get out of by any means whatsoever.

MS. HARE: We can't. We are the owner of this property and I can assure you that the EPA and the State regulators in any state where I have these properties, and I am doing clean-ups, holds us accountable. There is just no question about it. It has to be done. Furthermore, the Navy is holding us accountable, myself, and Jim--are holding us accountable to get this job accomplished.

MR. COLTER: And, I sense a little mistrust and that's to be expected and it comes with any territory. Hopefully, as you come to these RABs, we can alleviate that mistrust out of whatever reason.

MS. HARE: Make you file--

MS. SEIDEN: I think these neighborhoods are racked with cancer and you can't put carcinogens in

the land, in the air, and in the water and then wonder where all the cancer is coming from.

MS. HARE: I will tell you I am not a toxicologist. I cannot address why, you know, there are folks, in various neighborhoods that have cancer. There are folks, in the neighbohood,'where I live that have cancer. I wouldn't even begin to address that. What I can tell you is there were a lot of things that were done throughout this country back thirty years ago, forty years ago, fifty years ago, we didn't even have all the environmental laws on the books back then that we have today so people did a lot of things that weren't good for the enviornment. Obviously, that all catches up with you sooner or later. We are under the gun now to comply with the law. We have to comply with the law. I can't transfer a deed from one thing-- I would never get rid of this property if I didn't clean it up and I am under the gun to transfer the deed on this property. I have been mandated by Congress to get rid of the government-owned contractor-operated facilities. They are no longer necessary for the military to retain ownership. I have to do that as

expiditiously as I can possibly do it, but the State will not let me do that until such time as the property is clean in accordance with the law. So, I am pushing this guy all the time and his contractors to let's get this done, let's get it done right, the first time. I don't want to hear anything about, well, we have to go back and do this over again. Because that doesn't help me in my efforts to turn this property over to the community which, oh, by the way, has been pretty devistated by the fact that Northrop Grumman and Grumman Aerospace, prior to that, has downsized and is a shell of what it used to be here. And, all those jobs have gone away because once the property is clean, and in the hands, by deed, with the community, then you can begin to start the recovery process.

MS. SEIDEN: Except that you label it commercial industrial and that is not clean-up to protect our ground water in the aquifer and our drinking water. It just doesn't. There are two sets of rules and regulations on clean-ups. One is based on health and the other is based on your protecting the ground water and the ground water protection

one is much more stringent than the one that is going to protect the peoples' health.

MR. COLTER: Ground water clean-up is not governed by industrial or residential number. It's governed by the maximum contamination level MCL, drinking water standards. The ground water will be, you know, addressed and is being addressed to the M.C.L.s. It will take several decades to reach that goal but ground water is not based on an industrial or residencial number that is strickly a soils number.

MS. SEIDEN: Even your soils, whatever you leave there is going to wind up in the ground water anyway.

MR. COLTER: That's a whole other presentation that I gave when people were at a site for about what we are leaving on the property. We can do this again but you will be surprised what we are not leaving. There is not much left other than Site 1 and these dry wells. Northrop Grumman has basically found they identified 250 areas of concern where they had soil contamination above the State clean-up standard. They went in and excavated over 250 sites. Some of them are pretty monsterous

areas. There is no contamination as you may think. And, if you want to come and sit down with you I will try and go over the data and give you a site tour like we did in early December of the rest of the RAB. I will be glad to do it to alleviate your conern but there has been a lot of work done and it's, unfortunately, that most of that work is not shared because, again, Northrop Grumman doesn't have the same mandate for public community outreach as the Federal Government does but, beware that your state regulators are not letting them leave anything that could be considered a hazard to human health. That's just not there. This job is not to do that.

MS. HARE: I will tell you, I have been in several states as I mentioned before, and New York is one of the toughest states from a regulatory standpoint. The only other tough one that I have to deal with is the State of Texas. We are not going to get by anything here in the State of New York. We are going to have to clean it up to the letter of the law and these regulators are going to make sure that we do.

MR. MCBRIDE: As a resident, I was quite amazed

at what Jim was saying about some of the stuff we have seen cleaned up that they have done. I am not-- From the things that I have seen, it seems like it's been very progressive and I have a high degree of confidence and a lot of respect with our State D.E.C.. And, that's really where my faith is. In fact, that the D.E.C. is keeping an eye on this. The things that we have seen have been really quite amazing so far.

MR. COLTER: I will tell you one thing: I was ready as I told you on the telephone to send that Phase 2 report out. A couple of weeks ago, and because the D.E.C. sent us over 80 comments asking questions, clarifications. That's why I haven't sent the report out. We have to address their questions. And, they're not saying we didn't do anything. They're just saying "Now I have a question; can you please show me the answer?" So until we give them the warm and fuzzies, I can't release that report. That's why it's been delayed because of the D.E.C., your regulator.

MS. HARE: Are there questions? We have anything else?

MR. MCBRIDE: I would like to look at when we

are going to schedule our next meetings. We are talking about April release date. Why don't we look at a date in April suggesting a meeting.

MS. HARE: We are looking at about the middle of May.

MR. SCHARF: Right, I am going to estimate May. If it comes up shorter maybe we could do it in April.

MR. MCBRIDE: We will leave it flexible.

MS. HARE: You and I can talk back and forth and I promise we many communicate by mail on something.

MR. MCBRIDE: Between us, maybe we can get in contact with each other.

MS. HARE: Jim can remind me.

MR. MCBRIDE: Anybody else from the community have any other concerns to be addressed for our next meeting that come up if there's any topics. What we selected for tonight really came out of our last meeting and discussions after our field walk. But, whatever, we have or any concerns, I would like to present it to the Navy for them to come back to us.

MS. HARE: If you think of a topic, you may not

think of one right at this moment but you think of it two days later or something, if you will contact Jim, give him a call and I promise I will get back to people on my voice mail. Then we will definitely coordinate that and try to get that on the agenda.

MR. MCBRIDE: It seems as--

INTERESTED OBSERVER: How is the Hooker Remediation affecting the clean-up here in Bethpage? Is there any--

MS. HARE: I can't speak to that. I don't know that the Navy can speak to that.

MR. SCHARF: We just had a conference call with the EPA on the Hooker site and concurrent with the OCEA, ground water remedy, we are looking at the feasibility with Northrop Grumman. And, we are also looking at that operable Unit 3 ground water remedy for the Hooker Ruco site. And, that was started about a year ago because originally, as I think I said earlier, there was a combined regional ground water feasibility study between Hooker Ruco, being the Navy, and Grumman. But, we could never concur on. There was a whole series of reasons that we couldn't bring it together and so we split that off. EPA then pursued a separate feasibility study

with Hooker, and that's about to be released. I am reviewing that also. That's in final draft. I have got to get my comment letter to EPA on that, probably within the week. And they're hoping to have a meeting right after our meetings. And one of the things that I can say is that the I.R.M. that Northrop has installed is down-gradient of the Hooker site. And all of the remedies that are being screened in the Hooker documents use that as part of their remedy. And, so, there are things we are working out on a technical and legal basis to be able to present that to the public. But that's still in the draft phase right now. So, it works out the same in the end, but it works out better to have them as separate entities.

The New York State EPA made a decision way before I was working on the project that the Northrop group and the Navy facilities would not be nominated to the National Priority List. New York State has what's called a Class 2 list, waste site list, or registry and comparable to that EPA is the National Priority List. And, that's the best I can tell you. I don't know the reasons why. I just know that a decision was made way before I worked on the

project.

MS. SEIDEN: What's the difference?

MR. SCHARF: The State modeled it after EPA. We can't do something outside the realm of EPA because we are required under CERCLA. Our laws must meet all the Federal mandates and so the State, when they promulgate regulation, they generally look at the EPA regulation as guidance in drafting the State.

MS. SEIDEN: It is the State that recommends the site to EPA?

MR. SCHARF: That's correct. No site in any state can be on the list without a recommendation from the Governor. In New York State the Commissioner of the D.E.C. is delegated by the Governor to nominate those sites.

MS. SEIDEN: What determines what sites they're going to move on and what sites they're going to keep?

MR. SCHARF: There's a whole series of facts it is dependent on, being the State and the priority. And, even if a site gets recommended to the EPA to be an NPL, that doesn't necessarily mean it will make the NPL. They have to do what's called a site

assessment or HRS hazardous ranking score. And, generally, they look at the site, the preliminary date on the ground water, off-site receptors.

MS. SEIDEN: They used to publicize that but--

MR. SCHARF: It's in the National Federal Registration Center. It's just maybe something they don't have as many places. I am willing to wager that you can probably look up on line at EPA now and they probably have a WEB site which will list all of the sites that are on the NPL, the information.

MS. SEIDEN: The State publishes a bulletin.

MR. SCHARF: That's correct and also there are volumes--

MS. SEIDEN: They don't put the hazardous ranking?

MR. SCHARF: No, they don't but--

MS. SEIDEN: They used to.

MR. SCHARF: Maybe.

MS. SEIDEN: They did.

MR. SCHARF: That I couldn't tell you.

MS. HARE: If there are no other questions, Mr. Mangano is already-- I have delayed him for another meeting or whatever he has to get to and he's the

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one that has the key and has to close this place up.

* * *

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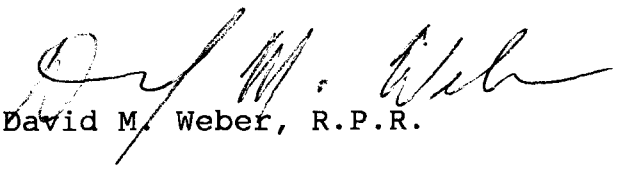

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