Naval Weapons Industrial Reserve Plant

Bethpage, New York

Restoration Advisory Board

Regular Meeting

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7:00 P.M.
August 6, 2003

Bethpage Community Center
Bethpage, New York

P R E S E N T:

Joe Kaminski	United States Navy Naval Air Systems Command
Dave Brayack Kelly Carper	Tetra Tech NUS
Jim Colter	Northern Division, NAVFAC
Steven Scharf	NYS DEC
RAB Members Community Members	

August 6, 2003 Bethpage RAB - Proceedings

CO-CHAIR KAMINSKI: Let me welcome everyone to the, whatever -- welcome to whatever number RAB meeting this is, of the Bethpage Restoration Advisory Board. Mr. Kaminski works for Naval Air Systems Command because Naval Air Systems Command still owns a portion of the old NWIRP plant Bethpage. We are diligently working to transfer that property to the County of Nassau for economic redevelopment, that is the goal here . Before we can do that we have environmental remediation to take care of.

That is part of remediation that goes on in conjunction or associated with that transfer.

This is a major milestone in the RAB for Bethpage in that this is the first regularly scheduled meeting. In the past we've put meetings together based on a quantity of information that needed to be passed along to you all. We found that that became too irregular and it taxed the community to not know exactly when a meeting was and everybody felt like it would be better to have regular meetings, regular meetings. It worked for Texas at RABs I have there so we established -- the last time we had a meeting, we established a regular schedule

for these meetings, this being the first one.

Since this is the first one and since the last meeting was toward the end of May, we only got two months worth of additional effort. So this particular restoration advisory board doesn't have a whole lot to present. That's good. As I was talking to Jim, my co-chair here, before we started, it gives you all a chance to learn about it, and to get the substance of it all without being so overwhelmed that you don't understand what we are trying to present. We have had meetings that drug out way too far.

So with that, we'll go into Robert's Rules of order stuff, which you all been with me last couple of meetings know nothing about. I all need help in going over the minutes.

We used to have problems with minutes but with regularly scheduled meetings, we don't have problems with minutes anymore. I'm certain you got minutes of the last meeting. If it's okay with you, is there a motion to approve the minutes. Unless there's a problem.

CO-CHAIR McBRIDE: I just got the minutes last week. Is it possible at least to get

the transcripts of it sooner? What I read, was based on my memory. And it's a couple of months old. If we can get them sooner, it would be easier for us just to review.

What is our best --

CO-CHAIR KAMINSKI: That is the best that we can do, which is about six to eight weeks on the minutes.

MR. COLTER: Whatever is the best we can do. In this case, our meetings will normally be four months apart. We give you plenty of time, normally. This one was two months apart. We are going to stick as a result.

MR. COLTER: Just to elaborate on that, unless all the RAB members of copy of the transcript, what we were doing with providing the RAB members with the paraphrased minutes and you with the transcript. And if people actually wanted to see what was actually said, they could get a copy of that. It cuts down, because those transcripts are pretty thick but, it's up to you guys.

CO-CHAIR KAMINSKI: Does that make it easier, for us to send the transcript?

MR. BRAYACK: The minutes take extra

time. If it is more comfortable just sending out the transcripts, that works for us.

What happens is, when the transcripts come in to us, then we have to read through them. Mostly for technical, chemical names, as a classic example, "trichloroethane" and "tricholorethene", it takes a little bit of time to get them clarified and accurate.

But, the minutes take extra time. We can get them out quicker with just the transcripts.

CO-CHAIR KAMINSKI: We can get you a transcript. But there may be a mistake or two in the transcripts that we may have to clarify.

MR. COLTER: We'll still go through the transcript to correct the spelling or transcription errors before we send it out. The question is, do we want to paraphrase those transcripts into minutes or just hand out the transcripts and be done with it.

CO-CHAIR KAMINSKI: If you want the transcripts, we'll do that.

We'll try it for awhile.

A WOMAN: We'll try it.

CO-CHAIR KAMINSKI: Let's try it.

MR. SCHARF: Do they send you an electronic version, and you can highlight where you make changes or --

MR. BRAYACK: We come in -- we get draft transcripts in, and like I said, in many cases there's a question as to what was actually said, so you'll see three or four words missing where there was question as to what was actually said at that point.

We go back and usually there's enough -- it's phonetically spelled in there and based on the phonetics, we are able to go back and determine what words were actually used. For the majority of them. There's still some that we can't figure out.

CO-CHAIR KAMINSKI: We'll give you a transcript next time and see how you like that. How's that?

That's fine.

CO-CHAIR KAMINSKI: If you like that, we'll go back to the minutes.

CO-CHAIR McBRIDE: Can we include Steve on the transcript distribution?

MR. BRAYACK: Sure.

MR. COLTER: I guess every RAB member would get a transcript.

CO-CHAIR KAMINSKI: Is that better now, worth a try?

Can we approve them? Motion? Second?

CO-CHAIR McBRIDE: Minutes approved.

CO-CHAIR KAMINSKI: The next thing on the agenda, is for me to sit down and Dave to stand up and tell you about what we are doing out in the community.

MR. COLTER: I'll say a few words first. For those of you who didn't know me, I'm Jim Colter, the Navy's remedial project manager in charge of the cleanup of the Navy's property and also the off-site portion of the cleanup that we are doing for groundwater.

At several of the last meetings we have been giving you an update of what's happening with our cleanup program. Basically, on the Navy property, we have an area, what we call Site 1, that, you know, is contaminated with VOCs as well as PCBs and some inorganics. That site's being pursued on a 1995 ROD, where we are implementing the

1 components of that ROD.
2 That ROD is located at the Bethpage
3 library if you're interested.
4 So we are pursuing that, that's soils
5 cleanup and we are pursuing that, that will take an
6 another couple of years to secure the necessary
7 funding, necessary to complete that. As most of you
8 know, we are also dealing with a significant
9 groundwater plume that's -- has migrated off of the
10 Navy's property and Northrop Grumman property, and
11 it's heading mostly south to southeast into the
12 local community. We've tracked that as far south as
13 the Hempstead Turnpike and beyond.
14 We've also issued in April, a
15 groundwater ROD, that outlines what the Navy plans
16 to do with respect to that groundwater plume.
17 There's a lot of different components
18 of that ROD. In general, the two main components
19 are what we call the treatment of the GM38 area, and
20 the other main component of that is the installation
21 of outpost monitoring wells. That's in support of
22 what we call a public water supply contingency plan.
23 Basically, in the alternative, that
24 we looked at, we looked at cleaning up the entire
25

plume and putting enough extraction wells spaced properly that would intercept the entire plume at its most southern edge and that was determined to be economically infeasible. Also with all the development in the area, it was determined to be just technically infeasible as well.

So with cooperation from the DEC and the water districts, we came up with an alternative plan to treat some of the higher areas of groundwater contamination within the plume and then make sure that each public water supply well that may be in the path of this plume is protected and that's the public water supply contingency plan.

On that front, we are pursuing both of these kind of on a concurrent schedule. Right now, we are down at the Elm and Eve Street area, installing monitoring wells to monitor the Levittown water district well.

We have been there for six weeks, Dave?

MR. BRAYACK: We started beginning of June.

MR. COLTER: Beginning of June. So about four to five weeks.

Now we are moving on to our second location, near the South Farmingdale water district.

We presented this plan in the past and all of these documents and everything that I'm talking about is located at the Bethpage Library, if somebody wants to go and kind of look at the history of it.

There's a long history here so it's hard going back through the history every time we meet. But we are pursuing the installation of our sentry wells which are upgradient of these public water supplies. With these wells, we are going to monitor the groundwater. If those wells become impacted with site related contaminants, that will tell us that this plume is heading toward a public water supply, then we have enough lead time. Because of the distance of the outpost well, we have enough lead time to work with the water district to make sure that the impacts are handled before the plume gets there.

A MAN: How would we handle it.

MR. COLTER: We would pay for a treatment system on the water supply. But there's other alternatives, too.

There's -- they may want to abandon that site. That's an option. It -- we sit down and discuss it with them, hey, it looks like the plume is heading in your direction, how's the best way to handle it.

I would say nine times out of ten it would be with a treatment system similar with what Bethpage Water District has on all of their well fields. In the mid 90s, Northrop Grumman paid for treatment systems on Plant 4 and Plant 6 and in 1996, the treatment system on Plant 5. All the Bethpage Water District wells in this area, have a treatment system on there. That insures that the water that's distributed to the consumers doesn't have any contaminants in it.

The water districts do their own -- they're responsible for the maintenance. If something happened, they would shut that well down and they have other capacity that they could handle the consumer's supply or their demand with other supply if that were to happen.

So we are pursuing the installation of those outpost wells, and we are moving to our next location upgradient of the South Farmingdale

Water District. We are going to start drilling there probably in a couple of days, putting those outpost wells there.

MR. BRAYACK: Started today.

MR. COLTER: The locations, the distribution is in what we call the public water supply contingency plan, and that's a copy of that.

Jim, did you get a copy of that.

CO-CHAIR McBRIDE: I don't recall. I got a copy of the letter. Without enclosures.

MR. COLTER: It's a pretty good distribution, and our distribution list is significant with all the water district. So we sent the indication that this plan is available to Jim and the RAB members, a copy of it is in the Bethpage Library if you want to look at it. If you want a specific copy, let me know. We'll get you a specific copy to look at.

A MAN: Can you put something in Farmingdale? Are you talking about an impact on Farmingdale? We should have a repository in Farmingdale. I'm a concerned citizen of association of Farmingdale.

MR. COLTER: We could probably look

into something in Farmingdale if there's a library.

MR. SCHARF: We have a repository for the Fairchild Republic site at Merrick Road. It's a wonderful library with a lot of resources. They'd be more than willing to do that. I don't know if you want to put everything there. I mean, maybe from -- just a copy the R A F S and design onward?

MR. COLTER: The groundwater related stuff, I'm not sure Farmingdale is interested in our soil cleanup.

A MAN: The city water. I'm concerned when we don't attack the leading edge of a plume and we rest our case on well head treatment. Our main goal should be restoration of the groundwater. It shouldn't have to do with the cost. South Farmingdale has been impacted by plenty of plumes and we've dealt with this before.

MR. SCHARF: I think Jim summarized earlier. The DEC wrote a ROD on Northrop Grumman and Navy sites back in 2001. The Navy ROD is based on everything that is in the DEC ROD. There's a few changes and that's based on regulation. We looked at total containment of the plume and it's just too widespread to do that. However, what -- one of the

things that Jim didn't say but that is a part of the navy ROD, as well as the DEC ROD, is that the source of all the contamination, is being cleaned up and the site, meaning where we are right now, essentially, just south of here, Central Avenue, is being contained there. There is a set of recovery wells pumping right now, 24/7, almost 4,000 gallons a minute of water and treating that water and then -- from the deep zone and recharging that to the shallow zone. So it's creating a curtain if you will. As of now, we are already starting to see wells downgradient of the site that formerly were impacted with site-related contaminants, are becoming cleaner or are clean to groundwater standards.

In addition to the contingency plan, is containment of the site and a tracking of the plume, we have an extensive monitoring network now. The Navy over the last three years, has taken on the responsibility of all the off-site work and has installed fifteen wells. We also have vertical profile borings and we put all that information together to track the plume to come up with locations of these outpost wells, which are

upgradient of the supply wells.

It's a comprehensive package. If you will. If you look at the area, if you start say at South Farmingdale, from Farmingdale all the way over to Levittown, you're looking at an eight mile, or seven mile width. If you have an inkling of how much water that is, you begin to realize it's just too much. It's too much energy, it's too much intrusion into the people's lives that live in the area, to pump 300 feet down in their neighborhood. Over time it will work its way past and the clean water will replace that water. That's what the program is set up for.

In our lifetimes, you'll start seeing the groundwater clean. But in the mean time, it's a highly developed area, it's the sole source aquifer so we need to protect the plume, people's health and the environment.

One of the purposes of the ROD is to put forth a program that produces a result that is non-detect to our standard, meaning the analytical methods we have now, which are measuring down to half a part per billion, which is so small a quantity to fathom that. So we found that to be

acceptable to -- health department approval, and the water districts's approval, the state's approval, so we are moving forward with that program. It's well along. In the remedial design phases, nobody knew the extent. But we have everything quantified now. And we have it under control. So that's the important thing. The Navy is being proactive in my opinion in moving forward with this program. They're putting in the outpost monitoring wells for you and they have agreed that any well that's upgradient of a well that's contaminated will have treatment on there. They have treatment systems today that produce water that's non-detect to our standards and that's something you have to understand.

A MAN: I'm well aware of all that. My main concern right now, I don't have the analytical data, I don't know how close it is, I don't know how high above state TAGMs it was. We are never happy with using well head treatment, there is mechanical failures and mechanical breakdowns.

MR. SCHARF: That is a possibility. There's no perfect scenario in that sense.

MR. COLTER: But the water districts, will, if that occurs, will take the necessary steps not to send out contaminated water to their consumers. That's their mandate by the health department. If there is a breakdown, they have additional supply to cover the shutdown of a well. I don't want to speak for the district, but they have I'm sure a lot of contingency plans for the event that a mechanical failure happens.

A MAN: We already have one deal in South Farmingdale, where there's three heading west from the old Liberty Industrial site, and now there's two more threatening from Grumman. My main concern in the future, would be the cost of the South Farmingdale Water District because of the government's lack of remediation. There's other things that also could be tried besides pump and treat like bioremediation, where indigenous microorganisms attack the plume and break it down.

MR. SCHARF: The problem there is the depth and width of the plume. With bioremediation, there are different volatile organics in the groundwater here, that aren't all amenable to the treatment systems. You have some that are in an

aerobic phase or some that are in an anaerobic phase, which is with oxygen or without oxygen, and when you're going down deep, and you're talking about putting in these type of systems -- you seem to have some understanding, which is commendable. When you say for example, you need to biosparge air to air, we are doing it here with the Ruco site. Now they're moving onto the Grumman facility and they've impacted our recovery wells with vinyl chloride.

What we are doing, is a two-pronged approach, there. I don't mean to digress here, but since you asked the question.

They are going to biosparge, it's in the deeper groundwater, and it's a very expensive process. It's going to cost Occidental Chemical 8 million dollars to put two sets of wells in, with a huge 600 horse power air compressor where they put it down, and they pump the air. He has to pump it down to four or 500 feet, and then you have to create a curtain down there, and it's very involved.

Still they're not going to get it all. That's only going to detect vinyl chloride. The aerobes and food nutrients, when you bring out

those particular bacteria, they'll eat vinyl chloride, but they won't eat PCE and TCE, which will just blow on by and will be picked up in the recovery system. It's not a perfect scenario no matter which way you look at it.

MR. COLTER: Even with the containment of the entire plume, you know living down there how congested it is residentially, you have to space wells a certain basis apart. If you don't you don't get a good system. The impact to the residential neighborhood would be just -- I don't think they would like that. There's less impact in treating at the well head than there would be basically constructing treatment plants in somebody's yard or in a corner of somebody's yard, or something. That was part of our decision, as well, was the community impacts.

I agree with you, to try to restore the aquifer would be a goal and we looked at it. But with the heavy development here, it is just not technically practical. We would probably not get all the property access agreements we would need from everybody to make that type of plant work. So it was thought that if we put this containment

system on property that we do control, and shut it down so now there's no longer any source of this contamination continuing to go off-site, we already left to go off-site, before this decision was made, we would treat the affected water supplies and then eventually, without the source contributing, it eventually would naturally biodegrade and take care of itself. That may be in a lot of years, but that's -- that was the thought process.

MR. SCHARF: Keep in mind too when you mention Liberty Industrial that is inorganics, such as chromium.

A MAN: Chromium cadmium is it.

MR. SCHARF: Here, we're talking about volatile organics. For example, the Bethpage Water District is proactive, on their own, on doing this initially and settlements were made later dealing with this problem.

They have systems going up right on the parkway.

For 10 years, now, in '85 -- no, in '94, they all went on line. They have been tracking that and upgrading wells, going on. That's part of what the GM38 area Jim is going to talk about

dealing with. They have been getting water to their specification which is non-detect for quite awhile now. The technology has improved on these air strippers since then.

MR. COLTER: What we'll do in response to your question, we'll get in contact with that library and we'll look at setting up a repository for the groundwater down there now.

A MAN: Appreciate it.

MR. COLTER: That shouldn't be a problem at all. We'll talk with Northrop Grumman about having them submit some of their reports as well, but that would have to come from you. I can't ask them to do that.

MR. SCHARF: That's fine.

A WOMAN: How about the Levittown library?

MR. COLTER: I guess we could. I don't think it's a problem.

A WOMAN: I don't think it is something you need to go back to the beginning of time but, it's an idea of what's ongoing in our area.

MR. COLTER: If we can get the names

of those of libraries after the meeting?

A MAN: Farmingdale Public Library.

MR. COLTER: I'm not familiar with the area.

A MAN: I'll give you my card and you can contact me and I'll have the information for you. When it impacts any community from this site, they should have a repository.

MR. COLTER: We do have one at Bethpage Public Library, as well.

A MAN: Right.

MR. SCHARF: So Elm Avenue, we just finished, is that Bethpage, where the wells's going.

MR. COLTER: That's Hempstead.

MR. SCHARF: That's Town of Hempstead.

MR. COLTER: But it's Levittown Water District in the Town of Hempstead.

That's kind of what we are doing with the outpost wells, the plume has not impacted the public water supplies as of yet, that's why we are putting the outpost wells in. The theory when you read the documents we put in there, the theory's that if these outpost wells get impacted there's a

five year lead time before an impact would occur at the 0.5 level to a water supply well. So we have a five year window to work with the district and get something in place. So -- we are pursuing that now.

The second concurrent schedule that we are working with, is called the GM38 area. And it's an area within this contaminant plume that is of a greater concentration of volatile organics than the rest of the plume. The rest of the plume we are finding, 100 parts per billion, 50 parts per billion, numbers like that. In this area, GM38, we are into the thousands of parts per billion. We call that a hot spot. Part of our remedy, in addition to the containment system, in addition to the public water supply protection, is to take these hot spots and pump them down to something of a lower level.

We've presented our plan to the water districts at the last several meetings, we have a regularly scheduled -- not regularly scheduled but a scheduled meeting with the water districts to keep them apprised of what we are doing. At the last Bethpage RAB meeting, a RAB member asked, because we presented our plan for where we are going to site

the GM38 treatment plant, we went to a couple different options as far as land that we could possibly use. And for one reason or another, we settled on the Town of Oyster Bay property. We contacted the town and we talked to them about the plan and we got their concurrence that we can proceed with some real estate agreements to construct this treatment system.

The request from the RAB members was that they would like to know what those steps were that we took and what were the other options that were available to us.

So we agreed for the next RAB meeting, to give a presentation on how we went about coming to that decision. Bearing in mind that we are still in the design phase of the GM38 area. What we've promised the Town of Oyster Bay was at some point we would hold a community workshop at either the high school or the junior high school or maybe even here, where we would answer the community's questions and things like that, and show them what's going to be built and some of the steps we've gone to, to try and minimize the impacts, aesthetically, as well as sound and things like

that, that we would put on that workshop before going to the community. So we will do that down the road but what I want to do now is turn the meeting over to my environmental consultant which is Dave Brayack, from Tetra Tech NUS, which is our environmental design consultant on this project. He'll go through the steps that we kind of went through to finally decide that the area to construct GM38 treatment plan was just about the best and only option available to us.

MR. BRAYACK: I have some handouts of this presentation. The handouts are kind of small, as well. I just want to pass them down.

Just to get everyone oriented. This here is the 105 acre Navy property. This is where much of the former Northrop Grumman property was.

South recharge basins. Hempstead Turnpike. We were talking about some of the certain -- more southern water districts. They're pretty far down on this.

Doing the investigation, it was discovered that there was an area right in here, that contained chlorinated solvents upwards of 500 to a 1000 micrograms per liter. Which is a factor

of 10 or even 50 times higher than was found throughout the rest of this area.

Part of the remedy is to attack the contaminated groundwater in here. It is estimated there are several thousand pounds of chlorinated solvents at that point. By controlling it at this point, it really lessens any potential impact on anything to the south.

A MAN: Are those the highest soil numbers you're coming up with, right there, at the --

MR. BRAYACK: If you want to go back one, Kelly?

MR. BRAYACK: Right now, Northrop Grumman is operating a system that pumps about 4,000 gallons per minute. And in that area, the contamination averages between 1,000 and 5,000 parts per billion chlorinated solvents. There's another little area over here that will be addressed in the very near future but off-site, and this is getting pretty far south at this point, and the groundwater does flow in general to the south, and to the east, there's another pocket of very contaminated groundwater. Just for reference while we are here,

Bethpage Water District Plant 5 is located right at this star? Bethpage Plant 4 is located at this star. And Bethpage Plant 6, is located over here. Both four and six do have some levels in the groundwater and they're being treated to non-detect levels.

Part of the reason here is to protect Bethpage Plant 5. Plant 5 does have treatment on it, as well, and to date I don't believe it's seen any contamination. But the idea is there's a pocket of several thousand pounds of chlorinated solvents right here at the roughly 100 to 500 to a thousand microgram per liter range. It's less than what's on site. It's much higher than anywhere throughout the rest of the area. Does that answer your question.

A MAN: Is there any higher numbers south or southeast of the GM38 area.

MR. BRAYACK: There are detections in through this area, but they are all very sporadic, they are vertical profile borings. We are taking samples as we go down. What we would find generally in the shallower area, in the upper 200 feet. We find a few detect, the we find clean, then we find a few detections. As we went down deeper, it would be

generally all, when we say there is some contamination, that doesn't mean the entire 800 feet of aquifer is contaminated. In many cases it is a small part of it.

A MAN: How long did it take to migrate to the GM38 area? When were these chemicals used.

MR. BRAYACK: The plant started operation in the late 1930's to mid 1940's, so sometime after that.

A MAN: When did they cease using these chemicals and dispose of them the way they were disposing of them.

MR. BRAYACK: Since 1984 when the RCRA regulations went into effect. At that point, most of these plants stopped any type of spillage or leakage or -- that rough time frame.

This is a blow up on the area. You'll see this map is kind of confusing. But just in general, once again, Bethpage Plant 4 is located here. This is the Seaford Oyster Bay Expressway. Bethpage Plant 5 is located down here. Bethpage Plant 6 is located off to the side.

What you see on this map, GM38 is

named after a set of monitoring wells that were installed in this area. And the peak concentration discovered in one of the samples was 3,420 for chlorinated solvents. There's another location down here, where it was at 945, and another location here, where it was at 344. These are sporadic. It's not a continuous plume over the entire length. It is mostly concentrated between about 200 and about 400 feet me below ground surface. The groundwater above it is relatively clean and the groundwater below it is relatively clean.

This map shows a two groundwater extraction system.

What we look at is we put the groundwater contaminant plume on the map. As part of the design, we place groundwater extraction wells, to see how far out they could extract the groundwater from. It takes, what we have shown here are two groundwater extraction wells, one showing one down here and the second one up here. Then we look at the overlap between where the known contamination is and where the groundwater capture zones are. That is how you set up your groundwater recovery wells.

It means these wells have to be more or less centered close to where the contamination is, or they're not effective. If you put them down here, then they're pumping relatively clean water for decades sometimes. By putting them in the middle of the plume, it shortens the amount of time that would be required to clean this area up. The current systems right now, pumping at 1,200 gallons a minute. This hot spot area would be cleaned up between five and ten years.

MR. COLTER: Just to elaborate a little bit, all this data that we are collecting, we're getting from a ground water computer model that simulates the conditions of the groundwater. That's how we are able to determine by playing with the location of wells, what's the best spacing, what's the, as far as best time frame to get to where we want to go by using the computer model.

MR. BRAYACK: The point on this, too, with these wells, you do have to locate them. With these wells, you can shift them around a little bit within a certain area but you're limited on where you could go.

MR. COLTER: If it was an open field

with no development, you can play with it as you wish. As you know in this area with the homes and the congestion, it limits open space where we can install wells and things like that. That was another constraint, that because this was just a rural area, it would have been a lot easier to place things with less impact.

MR. BRAYACK: This is a cross-section looking through the area. We installed a series of vertical profile borings down to a depth of 800 feet in each of these cases. Every approximately 20 feet as we were going down, we were collecting groundwater samples and then sending them off for chemical analysis.

The other thing that we were doing is we were going down mapping out the clay unit. They dictate how the groundwater flows through the aquifer. ****Groundwater can flow through the clay sideways, 10, 100, 1,000 times faster than it will go through a clay unit. The clay unit generally limits where the contamination is. When you're trying to do a cleanup, more importantly, if you put a groundwater extraction well in one zone and you're trying to get contamination from another area, it

may impede where the contamination, you know, the ability for the contamination to get into that well.

So those clay units are very important.

But with respect to talking, and this is a cross-section, here. The center of the site as we were looking at it would be just about in the middle of this triangle. We have some zones in here where we have a thousand. We get up near the water table which is this line here and we are down to about 10 parts per billion or even less that's pretty much clean. As we go deeper, once again we are relatively clean too.

What the blue and the green zones represent are where the extraction wells are intended to capture. Recovery well number one, basically capture the more shallow groundwater because of some of these clay unit here, recovery well one, wouldn't get some of the deep are stuff so there would be a second recovery well. Ideally you would put this in with one recovery well right in the middle and you'd pump it very hard and everything comes to the middle and you're in good shape.

Based on the way the plume is set up, that is not practical in this case.

This is just another look at it. This is looking up a little bit further for the. This is showing here in particular, how this second recovery well is pumping this zone, here. And in particular this clay unit is much more well developed further north.

We have the contamination in the groundwater. We have to site our wells where the contamination is. One item of good fortune is that LIPA has their high tension power lines running right through the area and we have Seaford Oyster Bay it one side so it's created more or less an open area through there.

We have really two different types of treatment options for treating this groundwater. We talked about two ground water extraction wells, that pump the groundwater up. Run it through an air stripping system. These are volatile organics. If you pass over top of them, the volatiles come out of the groundwater very well.

Then you have to do something with the water once you have pulled it up. We looked at

several options there's recharge basins in the area. We looked at ground water injection wells. We look the at some infiltration galleries. We look add at them. At this point in time our best estimate is this reinjection wells is probably the best option. From the surface you wouldn't really see anything. The groundwater comes up, most of this piping is all buried the only thing you wind up with is this aluminum shiny tower, that does stick pretty far up in the air.

The volatiles would come off in an air stream and then they would go through vapor phase granular activated carbon to remove all the VOCs on the air stream back into the air.

This is one alternative.

A MAN: How far downgrade of the plume are you going to be reinjecting the water back in?

MR. BRAYACK: Let's go back to slide number two.

Once again, here's the recovery well, one and two. We were looking at the cross sections here and here. The first place that we picked that is close enough to reinject is right about in here.

If we reinject anywhere closer than we start interfering with the extraction process.

A MAN: Isn't that still in your capture zone. You'll be injecting water back in and refiltering.

MR. BRAYACK: We will be extracting water at depth and reintroducing it at a shallow depth. So there is some interference, you're right. There is some short-circuiting.

The other thing we are looking at and none of these location are truly final, but the other thing we're looking at is Seaford Oyster Bay Expressway runs all along here. We are considering moving reinjection further south.

A MAN: There's a couple of storm basins further south along the Seaford Oyster Bay Expressway.

MR. BRAYACK: Storm basins have not been ruled out but there's other issues with the storm basins. Every time it rains, you have to shut the system down. Those storm basins have a goal right now. They have a function.

The other limiting factor is historically up here getting approval to use storm

water basins for discharge of treated water, has not been favorable to the legislators in the area. So instead of designing and going down that road and finding out that that request is denied, we take the history and say let's do something else that has a better chance of being approved.

They haven't been eliminated yet but based on what we've seen, they're not very practical to use.

Let's go back to five or six.

The second -- the first option was the air stripping tower. You wind up with the big tower sticking up in the air.

CO-CHAIR McBRIDE: How big about.

MR. BRAYACK: The tower we are looking at right now from the base to the top is about 40 feet.

A MAN: Is there one across the street right here.

MR. BRAYACK: Yes.

MR. COLTER: It would probably be lower than the one across the street.

MR. BRAYACK: No.

MR. COLTER: It would be about the

same size?

MR. BRAYACK: Yes.

MR. SCHARF: That's stainless steel.

MR. COLTER: It looks like Bethpage Water Plant 4.

A MAN: When I came in, I saw it out there.

MR. BRAYACK: This one is aluminum, that we are looking at right now.

MR. SCHARF: This is the one for Plant 3.

MR. BRAYACK: Once you know what they look like, when you start driving around they are really quite common.

MR. SCHARF: Maybe we can bury it 10 feet in the ground.

MR. BRAYACK: We are looking about putting 10 to 12 feet in the ground to reduce the profile but you have the top of the tower. If you want -- can you go back, Kelly?

If we were able to discharge straight up without treatment on the air, then it would be 40 feet sunk down a little bit, plus a little bit of a stack. However, we have to run it through this

vapor phase carbon because of the chlorinated solvents in it. This is big duct work. You can't make a right turn so it actually sticks up and comes back down, and that adds another eight or 10 feet to it. That's one option.

We'll go to six now.

Option two, this is a much simpler option at least at first pass. What's nice about this, you have your extraction wells. You run it straight through what's called liquid phase granular activated carbon. It's similar to the vapor phase. Then you reinject it. The problem with these, they are sensitive to the amount of contaminant. They can only hold so much contaminant, and then you have to pull the carbon out and send it off-site to be regenerated.

When you have very small systems and low concentrations that are very efficient, they are very effective. At the GM38 area, high flow 1,200 gallons per minute and high concentration. What it means is we would be bringing in very large trucks on a regular basis, perhaps weekly and putting them, staging them on perhaps residential streets. Like I said, it is a highly congested area. It would be a

very high truck traffic issue. This is not out of the question. In fact, the current remedy that we are looking at actually has air stripping followed by liquid phase granular activated carbon. By doing them in tandem most of the contaminants go to the vapor phase and this is used as a polishing. If not very much contaminant gets to this, these don't require change-out very often. Once again we are showing reinjection models. We are still in the preliminary stages on this. There's still options we are looking at. We are not eliminating anything. But what we are trying to do right now is figure out the best way to proceed. So...

A MAN: Question. On phase -- on Phase 1 or option one, I should say. Is there any technology out there that would allow an air stripper with a tower that is not 40 feet high.

MR. BRAYACK: Plant 5 is built like that. Bethpage Plant 5. It is actually a dual tower. You wind up with shorter towers and the water flows from tower one, gets pumped back up to the top of tower two, and drains through tower two.

One of the problems with them is capturing and treating the off gas from them. It's

something like what we are looking at here, we might have three stages. Now we are starting to drag this thing out, length-wise and we're just making it bigger. That is an option.

A MAN: I think from the town's standpoint at the present time, again, this is the preliminary stage, is that we are looking to minimize the impact on the neighborhood of the treatment facility.

MR. BRAYACK: Right.

A MAN: If it's lower profile, that would be probably better than having that 40 foot tower sitting there.

MR. COLTER: The lower profile would mean a bigger building.

A MAN: Again we need to look at all of that. You take the bigger building off to the side and you screen it better. There's not much you can do with a 40 foot tower.

Some of the trees, you and I walked the area, so we know some of the trees that are in there have to come out in order to construct the tower. You'll never be able to put those more mature trees back. If you're spreading it out,

there might be better ways to shield it. We still need to talk about that. We are in the phase now where we looked at initially a place to put it. We know it needs to be done. I think you made the case that that's a hot spot. But there are still some concerns from some elected officials as to the height of that tower and it's impact on that immediate neighborhood.

MR. BRAYACK: Okay. Like I said, at this point in time, we are proceeding and proceeding slowly. There's a lot of discussions, a lot of issues to be resolved yet.

Like I said, the couple treatment alternatives we looked at was air stripping with the tower, the liquid phase, granular activated carbon. The biggest problem with this was the amount of truck traffic that we would be introducing. It is a simple technology but you only have one pump and no mechanical part, you're pumping straight through the carbon and it goes straight, straight into the ground. There would be controls. Maintaining that carbon would be a real issue, like I said.

As part of this, what we were doing, once again here's our hot spot area. Seaford Oyster

Bay. This I believe is Stewart, is that correct.

MR. SCHARF: Yes, that's correct.

MR. BRAYACK: We went through this area and tried to identify who owned what properties. These are tax maps. This apparently was an old parkway, Vanderbilt Parkway, ran straight through here. This is fortuitous basically, otherwise this would all be residential development and there would be real issues with a place to put a treatment system. But what we've done is identify who owns the property. You'll notice the Town of Oyster Bay, "TOB", is very prominent throughout that area. Which is why we have been having some discussions with the town on this.

This area right here is owned by the Bethpage Water District. They have a big water tower here, they have a couple of groundwater extraction wells and they have an air stripping tower, I have a picture of it as we go down a little bit further.

We have a nice big piece of open property here that's relatively buffered. Most of this property through here, is no good because of

the power lines that run through there. They're too high voltage. You can't really construct anything with any height. We did talk to the Bethpage Water District about siting something on this little corner here. They produced water. They didn't want any groundwater treatment system local to their water district.

Like I said, the Town of Oyster Bay has a fair amount of open property in here. So that's why a lot of the discussions were focused with them.

The second thing I wanted to point out, there was some discussion about using Bethpage Water District Plant 5 down here. The biggest problem with that, is in our groundwater recovery extraction wells, located up here, technically we could take this, pipe it down the street, down the street and then into there. But by the same token we'd be running through a lot of residential housing through there. We'd be cutting across a series of roads. Most of the area that's shown here, that I don't have any designation on it, is all private residential property.

There's very few, very little open

property throughout this entire area. This is kind of an area that we were targeting for ground water reinjection at this point.

MR. COLTER: "C" would be?

MR. BRAYACK: Nassau County. Like I said, anywhere that it's not shown as blocked off. Here it's all pretty much residential.

A MAN: That Nassau County property is in front of your capture area. That would seem like a logical place for reinjection.

MR. BRAYACK: That's where we have it. That's where it's located. Where -- this is removed a bunch of the extra lines on it. But where we are targeting for groundwater reinjection, is this piece of property here. I have a picture when we get to it.

A MAN: It's almost at the leading edge of the capture zone.

MR. BRAYACK: This is all once again tentative. This is a blow up.

There's a lot of steps to go through on this. We are looking at two groundwater extraction wells, recovery well one, recovery well two. We need to get them to a treatment system and

there's some pictures what these look like. But we are looking at running straight up this road here. The second is already the end of the road. Running along the power line and then into a central area, here. We are looking at reinjection down at this point. Such as the reinjection piping, we're looking at running it along Seaford Oyster Bay or would we run it straight back down this street? This is not a final proposed plan for routing or anything.

The thing we are trying to do here is see what can be done. This is a very complex area real estate wise and there are a lot of things that just can't be done. Rather than focus on what can't be done, we're trying to focus right now on can it be done? As we go down through the next steps, our focus will be on optimization of how to minimize public concern.

A MAN: Was there any thought put into it injecting upgradient instead of downgradient, creating a flush system.

MR. BRAYACK: You could do that.

A MAN: If you inject it just beyond that you, you create a flush, by not injecting

downgradient you give it more of a chance to degrade. That was my only reason for asking that question.

MR. SCHARF: Keeping in mind when you say "degrade", we are not expecting this to biodegrade to a non-toxic chemical. That's the nature of the basis here, as you move down, as you start bioremediating a compound, you change the chemistry. Once the oxygen goes out of the water, it just doesn't happen.

A MAN: I don't know why we can't turn it into gold.

MR. SCHARF: What's interesting is on the system we are running now, the containment system, Northrop Grumman's operating it -- pumping all these millions of gallons of groundwater for use in their industry over the last 50 years. And they have been running the treatment system for 15 years here at Plant 5. The one at Plant 2 is maybe five years old? About ten years old? When did that go on line? Maybe six years.

Between the two systems, what they do is they actually steam strip the vapor phase carbon every day and condense out the chemical.

They pull out 35 gallons every two weeks out of the groundwater. It's a tremendous amount of material they're pulling out.

MR. BRAYACK: Okay. We are talking about the recovery wells, this being a fairly residential area, here. This is an example. The model originally had the groundwater recovery well going right in the middle of this house. We had to shift it over.

A MAN: What street is that.

MR. BRAYACK: I am not sure offhand. I believe that's part of recovery well one.

We had to shift it to the middle of the road.

A MAN: That's in Bethpage, right.

A MAN: That's south of the vanderbilt Motor Parkway. And almost to the Seaford Oyster Bay.

MR. COLTER: RW1 is this road.

A MAN: So that's -- South Herman.

MR. BRAYACK: What I wanted to point out here now, there will be disturbances. What we are looking at putting in the ground here is a groundwater recovery well. This groundwater

recovery well is going to be 8 to 12 inches in diameter. Inside that well will be a pump. It's going to be a big pump but it will fit down into the well. What you're going to see on the road surface will be a couple manholes. It will look very much like a storm sewer. There will be a couple of them. One manhole will hook up over the pump.

What we'll do is come out periodically, a rig will come attached to it, to bring it straight up. There will be an underground vault, the exact dimensions we're not sure of yet. Probably in the range of four foot wide, eight, 10 foot wide. This will be buried in the middle of the road.

A MAN: Can you do it on the shoulder so when they're working on it the road doesn't have to be closed?

MR. BRAYACK: You can see from the vehicles -- there's no traffic there.

A MAN: How do you know?

MR. BRAYACK: This is a dead end road, okay? And these streets here are about 40 foot wide, which is kind of amazing. You're right. And it would not be dead center, it would be offset

to one side or the other. It doesn't show up on here, but there are utilities running through this here. There's a gas line, there's a water line. There's a sewage line. So it's going to have to be placed in between them.

What we looked at is -- perhaps looking at blocking as much as half the road. You still would have 20 feet to get around it.

The routing we would look at here, would be to set it into the street here. The piping would then just be a trench that runs straight back into here and in the background is where the power lines come through.

A MAN: In a case like this, do the home owners have to be notified. Do they have any say in this?

MR. BRAYACK: That's some of the discussions we had earlier on. When we get to the point of saying this is what we want to do, there would be a workshop with them. Where they would be invited to come to a meeting to talk about it, we'd go through the details with them on it. Obviously, you know, we are talking about being in this area for several weeks. This doesn't go in in one day.

There is going to be interference to these people.

But, yes, there would be some type of workshop that would specifically target any of the houses directly affected by this. They would all be invited. We would have a workshop set up.

A MAN: It will establish another civic association that will be the basis for it.

MR. BRAYACK: But there's -- this group here sees some of this coming. We were out there checking out the utilities, and we were out there with the cameras. We only had the police called on us once, which I thought was pretty good.

Do you want to go to the next photograph?

These are the power lines that we are talking about.

A MAN: Yeah.

MR. BRAYACK: And the area, the specific area that we are targeting, is actually back in here. These big trees up front would probably stay. The area is actually behind these, and between those trees, and the Seaford Oyster Bay Expressway. Looking at it here, I believe we are looking due east. One of the wells would come up

from the south. The second well would actually be located -- I'm not quite sure where the end of the road is. But it's this general area, here. The second well would be located very close to that.

MR. COLTER: That second yellow pole.

MR. BRAYACK: These have problems too. In addition to the power lines going over, I think this is a high pressure gas main going through there.

A MAN: They never built houses on the right of way. Of course not over here, obviously. But it's interesting, say, west of it, they built houses which they said they would never build.

MR. BRAYACK: This whole area's pretty well taken up and there are houses I believe in the corner here in particular that are actually constructed underneath the power lines.

A MAN: The controversy with all those voltage going through and...

MR. BRAYACK: Yeah. Let's go to the next photograph.

This is the same area. This is looking a little more to the east south.

A MAN: I see the tower. I recognize it. These are all potential sites for GW1, right.

MR. BRAYACK: No. Groundwater recovery well RW1, needs to go a little south of here. There's some flexibility within that area but it's basically if you move from in front of one person's house, you're moving to the front of someone else's house. There's flexibility but it -- then the second well would actually be located right around in this area. I mean, if you shift.

MR. COLTER: It's another dead end street.

MR. BRAYACK: That's what I was getting at about these power lines. These power lines caused two dead end streets to be formed there.

MR. COLTER: What will be back in the woods is the treatment building that would house all the mechanical equipment, carbon units.

A MAN: This is not a done deal yet.

MR. BRAYACK: This is not a done deal.

A MAN: We spoke about this two months ago, right. But it's going to take a while

before the Town of Oyster Bay approves it.

MR. BRAYACK: That is correct. We are moving in the direction because there's good reason to get this treatment system in place and operating.

A MAN: What's the height of those trees.

MR. BRAYACK: These trees are probably close to 40 foot. There's another photograph coming up.

A MAN: It would be a good location if it works out as far as treatment wise.

MR. BRAYACK: It's tucked as far away from any houses as you could get in this area.

A MAN: A quick question on the recovery system. Is there any way that one could design this where the recovery system would not have to impact two Town of Oyster Bay roads, that recovery system wells be placed on any place else within that vicinity to extract the water but not necessarily have to impact any of the local streets?

I noticed the reinjection, there was prior discussion that might be able to go on the Seaford Oyster Bay right of way.

MR. BRAYACK: Correct.

A MAN: Is there any way to take those recovery wells?

Say for argument's sake, the treatment plant ends up where it ends up. Is there any way to take the recovery wells and shift them slightly east to the Seaford Oyster Bay right of way?

MR. BRAYACK: There's two of them. One of them we're already looking at locating at the end of the street here. That is not going to impact that street.

A MAN: South Herman.

MR. BRAYACK: We'll flip back.

Is this okay, here.

We did look at, the original optimum location was actually right in someone's house. We looked at moving over to Seaford Oyster Bay. Or we looked at moving to, I believe that's South Herman. It could go either way. So this is the state highway.

A MAN: The possibility does exist to put at least one of those recovery wells, at least one, on the Seaford Oyster Bay right of way.

MR. BRAYACK: That is correct.

A MAN: Not necessarily the second recovery well, which is at the dead end of Windsor.

MR. BRAYACK: That's right. The first recovery well needs to capture the downgradient portion.

A MAN: Okay.

MR. BRAYACK: The second one is located further up into the west a little bit. To put it over -- to move it over to here, you would not get capture in this area, here.

A MAN: But from the standpoint of disruption to the neighborhood, the south -- the North Windsor actually is at the dead end of the street as opposed to mid-gradient, middle of the road on the other street.

MR. BRAYACK: We did look at moving this up towards the dead end. The problem with that is we start losing capture on the downgradient end.

A MAN: We are going to continue to have dialogue with the Department of Public Works on that.

MR. COLTER: We have to look at, we have to work with the New York State Department of

Transportation for the access. But also that's a parkway with arched bridges and I'm not sure about getting our drill rig equipment in the low height, with the trucks and getting through the arched bridges.

A MAN: Could you go through our property, take down a section of fence go in do work and take it out.

MR. COLTER: That's a type of coordination that we have to see if we want to pursue that. But there are limitations to the Seaford Oyster Bay. We don't know how the DOT would react to long-term access. We haven't really approached them on that ever. We have been working with the town for the last four or five years. That is why we wanted to continue to work with the town versus getting another agency involved.

A MAN: Okay.

MR. COLTER: It's not out of the question.

MR. BRAYACK: The people that live on this side of the street don't see it, but here, we are going to be hugging their backyard, too.

A MAN: It's buried.

MR. BRAYACK: By the time everything is done, it is going to be buried.

MR. COLTER: All that's left is the two manholes.

A MAN: I realize. When you work in the middle of the street in front of someone's house, trenching, digging it up, if it ends up in that direction, we need to discuss, overlay as opposed to filling in the trench. That's further down the road. Those will be some questions that will involve the Department of Public Works and Environmental Protection Agency.

MR. BRAYACK: The next step is to get into a detailed design. Once you get into that detailed design, then these issues will be part of real plans showing proposed piping lines and getting the details worked out. This is all still very conceptual. With some of the questions, can we shift this all the way up, the general answer is no, we cannot do that. If we do, we have to put another well down here. Once again, we are routing the pipes right through the neighborhood.

We'll go to one of the photographs at the end.

Where this is right now, we are looking at Bethpage Plant 4. And the Seaford Oyster Bay Road is immediately on your left from here. This is if you keep looking straight down, here, go beyond this and beyond this, is the area that we are targeting for a groundwater treatment system, with an air stripping tower.

A MAN: We're looking east, now?

MR. BRAYACK: We are looking due south here.

A MAN: South.

MR. BRAYACK: Seaford Oyster Bay is on the left. There is a.

*CO-CHAIR McBRIDE: That is the King Kullen parking lot right there, executive offices. That's the backside of there.

MR. BRAYACK: This fence line here is the edge of Bethpage Water District property running along Seaford Oyster Bay. The air stripping tower that we're looking at will actually be fairly similar to this, right here. This is just a picture.

Is there another photograph or is that it? Then there was the question about the

reinjection wells. There was a tiny triangle piece of property, that's this piece of property right here. Seaford Oyster Bay Expressway would be just off to the right.

A MAN: That is Nassau County property, right.

MR. BRAYACK: Yes.

A MAN: What is that property, storm drain, a drainage area.

MR. BRAYACK: You're looking at the entire property here. It's just a vacant lot. This was just a tiny piece of triangle that nothing could be done with it because it's too small.

MR. SCHARF: So they maintain it like an open space.

MR. COLTER: They allowed us to put a vertical profile boring on one over site number 47. They allowed us to put that boring in there. That helped us to find the limits of the hot spot.

MR. BRAYACK: In fact, you're looking straight north on the street, here. This would be the end of the street up in there.

A MAN: That property one, two, three, they don't have to cut the lawn anymore.

MR. BRAYACK: I think that's it.

MS. CARPER: That's it.

MR. BRAYACK: Basically, that's where we're at on the GM38 area. It's something that needs to be done. Access and real estate are major problems here, as well as some of the residential interaction concerns, and they're all very legitimate concerns so...

MR. COLTER: That's basically it. As far as where we've got in the last month and a half, two months, since the last RAB meeting. I think what we are targeting instead of pursuing any type of design, is we're going to start working on that workshop for the community. We don't know where we are going to have it at or what time we are going to have it or dates, but we'll work with the Town of Oyster Bay, and that's probably going to be what we are working on mostly between now and the next RAB meeting, would be the development of some type of workshop, to try to get the word out to the community and start getting it tied in.

CO-CHAIR KAMINSKI: We're making significant progress on the soils and the transfer of the property. We'll keep you apprised of that,

as well. There's a lot of possibilities for the next RAB meeting and we'll alert you ahead of time what the discussions will be on.

I want to thank you all for your participation tonight, it's excellent. This is the way it should be, the community giving us their input. I really do appreciate it.

A MAN: I want to make a point for the community. I belong to many organizations, and a majority of people are not aware of what's going on. They have no idea what's going on.

CO-CHAIR KAMINSKI: You're welcome to inform them --

A MAN: No. But I'm saying. It doesn't seem to involve them and they -- they are very indifferent about it.

Only if it's in their backyard.

MR. SCHARF: With respect to public participation, you have to understand it's a two-pronged approach. The DEC has a Record of Decision, and enforces the record for the overall project. As sort of a subsidiary, the Navy has written their ROD and they have their own set-up for dealing with the public.

We periodically send out newsletters and also press releases. Sometimes Newsday picks up on it, sometimes they don't, on the overall project. And we did a mailing after the Record of Decision, We mailed out over 4,000 pieces of mail -- and it depends what area you're talking about covering. It is too large an area. We're not always to get the information out. That's why we hope that Newsday or Channel 12 will pick it up.

A MAN: North of here, they're not involved at all. Anything south of Old Country Road Bethpage, Farmingdale, what have you, they're more involved.

MR. COLTER: That's one of the reasons we are going to target that community with the workshop. We'll go around to people's doors, once we decide on the time and the place, we'll put mailings out, we'll move door to door.

A MAN: Hooker was the problem, say 15 years ago with the Superfund. Even then there wasn't that much of a turn-out.

CO-CHAIR McBRIDE: In what papers did you advertise? I see it comes in the Bethpage Tribune, for our meetings.

MR. BRAYACK: At this point that's the only one you're using.

CO-CHAIR McBRIDE: Could we try a couple of other papers or Newsday.

MR. BRAYACK: We used to do Newsday. It is very expensive.

CO-CHAIR McBRIDE: Levittown has a paper and Farmingdale. Anton Press has a lot. They have Plainview, Old Bethpage, Syosset, Levittown, Hicksville, Farmingdale.

A MAN: New York Times.

A MAN: My feeling is you're reaching a point now with operable units here where public participation is definitely something that has to be looked into.

MR. SCHARF: We have been looking into it. I'm trying to make that point. However, for example, on the Record of Decision, the water district sends out newsletters to their constituents. We wanted to put something in there. They didn't want to do that. It's the way they look at it.

MR. COLTER: That is basically what this forum is, to try to get community people on

this board, on a scheduled basis.

A MAN: I'd like to be on board on the mailing list. Wasn't for Rosemary civic leader in Farmingdale, we wouldn't have known about the impact on mails.

MR. COLTER: She's doing a good job, then. This RAB is our advocates.

A MAN: I could understand Richard not telling me.

MR. SCHARF: For example, we did a 45 hundred piece mailing. I piggy-backed that with a mailing on the newsletter for the DEC Record of Decision. With a RAB meeting, remember that, Joe, that was two years ago in the old building, out of 4,000 pieces, that generated 30 people to come down. We try to get the information there. It's not easy. Four thousand pieces alone is a thousand dollars postage.

A MAN: Even if you go on News 12 tonight and all the papers this week, you'll still have 90 percent of the people saying I never knew about it.

A MAN: If we are accomplishing an objective and we are satisfied with the cleanup,

publicity isn't going to solve it. That's not going to help us.

CO-CHAIR KAMINSKI: I like, I think that you represent the community. You've given us excellent input tonight.

A MAN: If it was something that was alarming, I'm sure the news would spread pretty fast.

A MAN: Once they come to the decision where they're going to put in the recovery wells, the injection wells and treatment facility, the public has to be made aware of this.

MR. SCHARF: We'll do a mailing specifically.

A MAN: Not that they're going to be able to change it. But they shouldn't have to see a truck pull up in front of the house and start calling the towns.

A MAN: Just as a point of reference, those discussions went on very early when we toured the property. Part of my charge from the supervisor always is to make sure that we look out for the immediate neighborhood. I not only walked that neighborhood with the Navy, I walked that

neighborhood on a rainy day in early summer, late spring, with Ed Mangano. We were sloshing around in there. We were looking at everything. I think one of my first remarks to the Navy was that are we going to do some form of outreach to the local folks who are most impacted by this immediate plan and the answer was yes. So we are -- we always look to inform the folks who are going to be impacted. Immediately. So when we get to that point, the Navy will take it upon themselves to run that type of outreach program, because you don't want somebody pulling up one day and the people in the neighborhoods are saying what's going on.

But on the flip side, to inform the thousand people surrounding about where a plant is going to be located, for the good of everyone is fine, but those folks are the most impacted and they may have to suffer a while for the greater good of the community. But we really should explore every option to minimize that disruption.

A WOMAN: Is there a town law, within 300 feet you have to notify people. Can't we use that law.

A MAN: That only applies to a

developer. This is really one --

A WOMAN: The Navy -- is developing.

A MAN: Yes and no.

A MAN: It's simple to do a zip plus four mailing for those people affected.

A MAN: We want to make sure the folks who are directly affected and the community at large knows exactly what's going on. I put more weight towards the folks who have a bell in front of their house, to listen to their comments as opposed to someone who lives twenty miles away, and maybe an activist, and that's fine. I think we would want to listen to those comments actually, to look at all the options, trying to minimize the impact to the community. When you put everybody's heads together to discuss these things, other alternatives can happen. So I don't think the Navy hasn't ruled anything out. And I don't think the town has ruled anything in at this point.

MR. SCHARF: To let the RAB know, the regional office has a CR person, Bill Fonda is there, and he's going to be handling the project. And Jim Colter has been in discussion with him, combining a discussion of the overall project and

having a public information session to discuss the ongoing remedy, not just this portion of it. So -- obviously people are going to come and ask all kinds of questions about the project.

One other point I'd like to make if it's possible, Jim, the schedule you're putting together for the project, that might be helpful to the RAB members so they can get an idea of the time frame what's going on. It may be reasonable to send with the next package.

MR. COLTER: We'll put that down for an action item, update the schedule.

Mike wants to become a RAB member.

CO-CHAIR McBRIDE: How do we do it?

MR. COLTER: There's something in the workbook. You just vote him in. We get your address, you're put on the mailing list.

A MAN: I can give you a P.O. box or home address, it's up to you gentlemen.

CO-CHAIR McBRIDE: P.O. box is going to be trouble.

MR. COLTER: FedEx doesn't deliver to a P.O. box.

A WOMAN: When are you going to get

going, to start monitoring wells for Levittown?

MR. COLTER: Well, to tell you about the one well, we put two wells in, and one well collapsed.

A WOMAN: That was by my house.

MR. COLTER: Where do you live?

A WOMAN: Elm drive.

MR. COLTER: We are leaving now because the Town of Hempstead called me.

A WOMAN: The neighborhood is very, very upset.

MR. COLTER: We are going to leave the area but we do have to come back several months down the road. And we'll go to the other locations.

But to answer your question, what we have to get into place now is a long-term agreement with the Town of Hempstead. Right now we had a limited site access agreement of six to eight weeks to put the wells in and then leave. What we have to do now is a more lengthy process, to get a long-term easement agreement with the Town of Hempstead. That allows us to any time we need, to access that well property to do that. We can just go out and take samples. We have permission long-term to go out and

do that. The Northrop Grumman Corporation and their environmental consultant will be the group that will take the samples. Our deal with Grumman is we'll install the wells and they'll sample the wells. We have to talk to them about when they're going to be ready to put equipment in there and start sampling, and a frequency. Right now the wells are in, but we don't have any plans to sample them right away.

A WOMAN: You have no idea.

MR. COLTER: We'll have more of that information. At the next RAB meeting we'll have that type of information about when we are going to start sampling.

A WOMAN: When you're putting in the second well.

MR. COLTER: I think it's going to be about four to five months. By then it will be the winter time so we may not come back till the spring.

A WOMAN: Summer isn't good.

MR. COLTER: Before we come back, we'll walk the neighborhood again with the same flyer that we did before, to let you know that we are coming back in a couple of weeks, and things

like that.

A WOMAN: I didn't have a problem with it but it was very disruptive.

MR. COLTER: Darrol Lopez is the highway department manager that we talked to. He expressed a concern that some of the residents said they didn't know anything about it. Maybe you can help me out on this. We went to just about every house that was in the vicinity.

A WOMAN: We got a flyer, and I'm right on the corner. But down the block just a couple of houses, they said they knew nothing about it at all.

I'm talking two or three houses. I'm right on the corner. I'm the first house there. Underneath the well. *Eve Lane, two or three house down from me, they said they didn't get a flyer.

MR. COLTER: If you can sign in, I'd like to know who they are. If you can find out. Then when we come back, I'd like to specifically inform those folks.

A WOMAN: I got the flyer, but with all my mail and everything, you don't all read everything either they might have gotten the flyer.

MR. COLTER: We try our best to let people know what's going on.

A WOMAN: You read the flyer but it doesn't prepare you for what's going on.

MR. COLTER: Maybe we need to look at that.

A WOMAN: If you talk about it now, with the people in the neighborhood now, that you'll be in the area, if you say we are going to redo something.

MR. SCHARF: For the record, sometimes you run into trouble or problems when you're installing these types of wells. The rigs are going down deep. Then problems occurred in installation, that delayed the action and they came on 4th of July weekend. That all being said and done, it caused the project to take longer than they had expected it to take.

A WOMAN: We expected them to be there six weeks. It's such a small area to put that rig in.

MR. SCHARF: I was over there.

A WOMAN: Although it didn't bother us. It was the people across the street. People

were driving up and down the drive.

A WOMAN: I have a bus stop on the corner. You might want to get in touch with bus company and tell them to move the bus stop.

MR. COLTER: We put fifteen wells in prior and we actually at one point had to call the school district to relocate a bus stop. We will do things like that if it's going to be during the school year. If that is a designated school stop, we ask them to move it temporarily and we go through the permitting process to do that. So. Hopefully we will be out of here before the school year, but we have to come back.

A WOMAN: I'm not telling anybody I'll tell you that right now.

MR. COLTER: We do keep Darrol Lopez informed of the delay. I informed his office that we had a problem and that we have to come back. Actually there was an aid to a county legislator that called my office but I don't know who that was, and we informed that person as well of the problems and things like that. So, we do try to keep as many people informed as possible.

A MAN: As a point of reference, as a

school board member in the neighboring district if you're looking to move a bus stop, you have to get on that now because all of those transportation routes have been mapped out and those bus passes, I don't know how Levittown does it, if it is the same as Hicksville, but those bus passes will be going out shortly. It is disconcerting for parents to get that notification and have it change after that. It becomes confusing if you're dealing with kids who are taking the bus for first time. If it's something you need to do, whatever school district is involved in this.

MR. COLTER: We have to take a look at that, then.

A MAN: I would go to either the transportation office or go right to the superintendent of schools.

MR. COLTER: Okay.

CO-CHAIR KAMINSKI: There's half a dozen action items I'd like to go through.

We have at least one new newspaper to go to. Two libraries.

This is what I remember. Jim, you remember the rest. Whatever I forget Jim can

remember.

We have two new libraries to get to. We have them in the transcripts, correct.

A MAN: Mid-Island Times.

A MAN: The Anton Press newspapers, if you get in touch with the editor, they'll run the same editorial in four or five different papers. They do that a lot for this area. That's up to you if you have the information you want to put out to the public. I mean on this GM38 area, I don't think you're quite ready.

CO-CHAIR KAMINSKI: This will be.

MR. COLTER: This would be about this meeting. To advertise the meeting.

MR. BRAYACK: That newspaper once again was.

A MAN: Anton Press has Levittown and Farmingdale, that I know of. It's the same editor Martin Kane (ph).

A MAN: There's a publisher here in Bethpage used to be called Photo News.

MR. SCHARF: If you contact Bill Fonda, from DEC Region 1, he'll have all the names of local papers in each area that might be of

interest to you.

A MAN: They'll have all the local papers, too.

CO-CHAIR KAMINSKI: We have a bus stop thing to look into.

MR. BRAYACK: That's the third action item I have.

CO-CHAIR KAMINSKI: Put a schedule of, implementation schedule in the package back to the RAB.

MR. BRAYACK: Implementation schedule for what.

MR. COLTER: Groundwater remedy.

MR. BRAYACK: For the whole program.

MR. COLTER: Program, yeah.

CO-CHAIR KAMINSKI: Get some -- get some local help next time you have to go out there and inform the local public. You volunteered to help us to inform the public the next time.

A WOMAN: Sure, I would do that.

CO-CHAIR KAMINSKI: Do we have your name.

A WOMAN: I'll put it down.

CO-CHAIR KAMINSKI: The next time we

go to the neighborhood, we have to go back and redo that well, if we have some local help to knock on doors.

MR. BRAYACK: When we do go back, it will not be nearly as extensive as we've done to date.

For the record, one of our monitoring wells was close to 800 feet and as near as we could tell a monitoring well has never been installed that deep in Long Island? So it may be an all time record.

A MAN: You talking about the 800 feet.

MR. BRAYACK: Yeah.

A MAN: I don't remember 800 feet.

A MAN: I don't think anyone's extracting drinking water that deep yet.

MR. BRAYACK: These are extremely deep monitoring wells. There's a quarter mile of monitoring wells in this area, this is the deepest area.

CO-CHAIR KAMINSKI: I'm talking about the one you have to go back to. The Elm Street well.

MR. BRAYACK: That's what we are talking about too.

CO-CHAIR KAMINSKI: It's 800 feet?

MR. BRAYACK: Yes.

CO-CHAIR KAMINSKI: We still need help making sure the public understands.

A new RAB member. Send all stuff to new RAB meeting.

MR. BRAYACK: I need your name and address.

A MAN: I'll give you another card.

MR. BRAYACK: At the next RAB meeting you'll vote on his membership.

We'll have to go back and look at the protocol in the manual.

MR. COLTER: You bring it up at one meeting, you table it, and you vote on it at the next meeting:

A MAN: I've worked on the cleanup at the Liberty Superfund site for the past nine years now, and I also had my fingers on the Fairchild Republic site for a little while.

CO-CHAIR KAMINSKI: We know what you're talking about. We appreciate it.

A MAN: Just a little bit.

CO-CHAIR KAMINSKI: Yeah. What else? Anything else.

MR. COLTER: The next meeting is the first Wednesday of November, that would be November 5th, next meeting.

MR. SCHARF: I would like to add one statement as far as New York State is concerned that the Navy has been proactive in working on these issues and the rest of these problems. The ROD has been signed, and I'd like to say thanks and keep it up.

CO-CHAIR KAMINSKI: Thanks for everybody's input.

(Time noted: 8:45 p.m.)

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

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6 I, JENNIFER MAUE, a Registered
7 Professional Reporter, do hereby certify that the
8 foregoing Matter, taken at the time and place
9 aforesaid, is a true and correct transcription of my
10 shorthand notes.
11 I further certify that I am neither
12 counsel for nor related to any party to said action,
13 nor in any wise interested in the result or outcome
14 thereof.
15 IN WITNESS WHEREOF, I have hereunto set
16 my hand this 27th day of September, 2003.
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22 JENNIFER MAUE
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