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PUBLIC INFORMATION SESSION MINUTES 15 OCTOBER 1992
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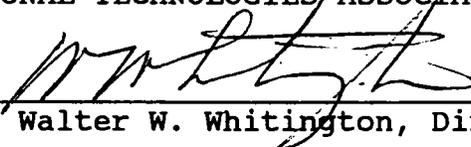
**MINUTES OF
CROOKED RIVER ELEMENTARY SCHOOL
PUBLIC INFORMATION SESSION
OCTOBER 15, 1992**

**PREPARED BY
NATIONAL TECHNOLOGIES ASSOCIATES, INC.
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ORANGE PARK, FLORIDA 32073**

THIS is to certify that the attached minutes are, to the best of my knowledge, a complete transcription of the original recording of the proceedings at Crooked River Elementary School, Public Information Session held on October 15, 1992.

SIGNED on this the 30th day of October, 1992.

NATIONAL TECHNOLOGIES ASSOCIATES, INC.

By: 

Walter W. Whittington, Director

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Capt. Lynn Scullion: Makes an introduction. " For those of you that were here the last time, you recognize my involvement with this as the public works officer for Naval Submarine Base, Kings Bay. On behalf of Mayor Brandon and Capt. Ellis, we appreciate your being here tonight."

" This is our second Public Information Meeting on the ground water contamination, which we believe is emanating from the Old County Landfill on the sub base property and moving westerly. As you can see by the title of this evenings session, we are going to talk about the interim corrective measures screening investigation that has to do with the groundwater contamination."

" Just to walk through a little bit of where we have been. In January we mobilized investigation sites on sub bases associated with our Installation Restoration Review Program, the DOD mandated program. In February and May we had our first two testing events on the sub base at the landfill site. We delineated the landfill's boundaries and did a number of other things there and detected a possible leachate moving downgradient, moving towards the west from the landfill."

" We installed and did sampling with (9) nine monitoring wells all around the parameter of the landfill. We detected a volatile organic compound, vinyl chloride, in those samples in well #2. The levels we detected were at 18 and 64 parts per billion, back in February and then in May. We also detected traces of other organic compounds."

" Once we detected those volatile organic compounds, particularly the vinyl chloride, we moved out in the July time frame and planned a method of doing an interim investigation to just try and figure out where the contaminated plume; plume being the extent of contamination, just what the western limits of that were, basically in the horizontal direction and how deep the plume was."

" We did groundwater sampling on the western side of the landfill on sub base property. We then moved to the western side of Spur 40 and we again encountered the vinyl chloride on the western side of Spur 40. Actually on the eastern side of the Crooked River Plantation subdivision. At that time, we had hits or detected vinyl chloride at levels up to 1400 parts per billion on the western side of the landfill."

" So we had at that time, confirmed the contaminated plume had moved off sub base and was emanating, we think, from the old

landfill and was moving towards the Crooked River Plantation subdivision. That was about the time we got City and County officials notified. The St. Mary's Mayor and City Manager, the Commissioners for the County and the County Administrator were all briefed on this."

" We then had a public information session for all of you on the 3rd of September right here. We then followed that up on the 9th of September with a detailed briefing with the Georgia Department of Natural Resources (DNR) Environmental Protection Division, which is basically one of the required officials that we report to on such a clean up, and the Environmental Protection Agency Region 4, both located in Atlanta. We provided them with a letter describing what we found and a number of technical addendum to that."

" Georgia came back to us on the 29th of September and acknowledged the issue of the contamination and requested that we assemble an interim corrective measure plan to show how we were going to further investigate that and determine the risk that is associated to the public with the contamination. This is all driven by the Resource Conservation Recovery Act (RCRA), which covers old contaminated sites."

" We have developed an Interim Corrective Measures Plan for investigation and that has been submitted to Georgia DNR. They basically gave us 45 days from the end of September to do that and we have already submitted that for their review and should hear back from them within a few days."

" Tonight, what we are going to talk about, which is what we promised you we would do back on the 3rd of September, is tell you how we are going to implement that investigation and how it involves all of you."

" What we want to do and what our objectives are in this Corrective Measures Screening Process is to determine the extent of groundwater contamination. How far westerly it is moving and how deep is it. Determine the concentrations of the contaminants located in that plume and evaluate the migration of contaminants also in the soil and in the air that might be effected as a result of the plume, and of course the principal thing we want to do is to evaluate the potential health risk associated with this contamination."

" A little bit about the approach we are going to take. We are going to go on-site and we are going to do sampling and analysis which is going to take up to 6 weeks to do it. We are going to be working on base directly in the landfill area, up gradient and downgradient and in the landfill. We are going to be working in the rights of way that are in the area of Crooked River Plantation subdivision. The streets and those right of ways that

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are not privately owned. We are also going to be working on private property, which I am sure many of you are familiar with."

" The things we are going to be looking at are the ground water, the surface water, and of course that includes Porcupine Lake, well water from private wells, soil gas, air and sediments. We will talk to you a little bit tonight about the direct push technology that we are going to be using, which is very a sophisticated and a fast way of getting deep into the ground and seeing what is down there. Both in water samples and subsurface soils."

" The details of this is going to provided, in just a minute, by ABB Environmental Services, Inc. If you will recall, at our last meeting, I explained how the Navy goes about implementing the Installation Restoration Program, which is the equivalent of the Super Fund Program on the civilian sector. We use Southern Division of the Naval Facilities Engineering Command and they are located in Charleston. They cover the southern dozen states or so and as our technical agent Mr. Ed Lohr is representing SouthDiv tonight. He has been involved in the investigative process since the very beginning and will stay with it. He is the key person as far as a subbase goes in getting the RCRA to look at this issue."

" We then have ABB Environmental Services, Inc., a nationally known environmental firm, doing the basic investigatory work for us and they have done it at many other sites, both military and commercial private throughout the United States. Mr. Frank Cater is with us tonight and he is the team leader and Frank if you will stand up and I will turn the microphone over to Frank here in just a minute. We also have involved with us in this process the City and the County and they have been walking step and step with us through the process. Frank, if you want to come up now you can introduce the members of your team. Frank will go through the details of the corrective measures and analysis and together Frank and I will try to answer your questions.

Frank Cater: " Thank you Capt. Scullion. What I would like to do first of all is introduce some of the crews you are going to be seeing out in the landfill, myself, Frank Cater, with the ABB Environmental Services, as a Project Manager. With me tonight is Laura Harris who is ABB's Site Operations Manager. Scott Calkin and Harlan Faircloth they will be our scientific representatives working with our sub contractors, SubSurface Technology, Inc. SubSurface are represented tonight by Mack Gainer and Steve Strolh. We also have with us tonight two of our on-site chemist with an established lab within the activity, that is John Planinsek and Tom Francour.

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" As Capt. Scullion said, what we plan to do tonight is to present our environmental plan within Crooked River Plantation for our investigation. What we would like to do is put up a slide that we used last time we were meeting and show you where we are today. We had the September 3rd public meeting and we have come back in and we are requesting for the permission to work on private properties and we are ready to begin our investigative approach."

" The first phase of our investigation is to use a direct push technology or hydrocone. We have targeted an initial area for our investigation within the subdivision which will involve the right of ways along Plantation Drive, Plantation Court, Cottage Court, Gate Lane, Arbor Place and the right of way along Spur 40. Also, selected properties within this area have been identified as potentially areas that we would like to do further investigation on the private property's. These residents have been notified through the mail and the handouts."

" Through a release form, we requested your permission to be able to sample along your properties. Prior to any investigation happening on private properties, we need your written permission to be able to conduct our investigation. Part of this involvement, part of this program, is getting resident's of Crooked River Plantation cooperation. We will ask you at the end of this evening to please return the forms that you have and we have asked you to fill out, either to the staff in the front or in the back of the room near the door."

" I would like to describe a little bit of the direct push technology. We have a van which is equipped with hydraulic and electronic equipment. This van uses soil anchors put into the ground to stabilize itself. These soil anchors are about 6 inches in diameter and auger in 2 to 3 feet into the soil. After this the truck is stabilized over the area of investigation a 1 1/2 inch terra probe is pushed into the ground (Shows probe to the audience). The probe is pushed in by hydraulic pressure to a predetermined depth and then as you can see at the end, that as it is withdrawn a little bit, it exposes a screen. The screen allows the ground water to seep into our collection chamber after we have collected enough water. We then fill 40 millimeter vials. After we have collected the vials and samples, the truck will then move to a new location and the procedure will then be repeated."

" The samples that we collect are taken to our on-site lab to be analyzed for volatile organic compound, particularly the ones we suspect are in the contamination of the ground water. Ten percent of the samples that we collect are duplicated and sent to an off-

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site lab for verification of our on-site lab. Results from our on-site lab is determining where they will put their next probe so that they are deliveating the boundaries of the plume, both vertical and horizontal extent."

" What I would like to do now is to show you a few slides. This is basically a self contained truck. You don't see any physical exterior drill rig type of equipment that you would expect from a drill rig that may install a well. This is from the inside of the truck. This is a shot of the lab equipment that we have set up. The direct push technology was chosen for this investigation to minimize the disruption to the residents of Crooked River Plantation."

" The noise that it makes is just that of a medium truck and it gets a little louder when they are using their hydraulics, but not much. The damage is very minimal. We have approximately a 2 inch hole for the probe and a six inch hole on either side where the anchors are put in. We also may have, because if it is wet, the soil may create a few ruts as the truck drives into your yard. ABB-ES and the Navy have arranged for a landscaper to come in behind us and repair any damage that we do to your yard with our truck."

" Any of the right of way damage will be repaired immediately as we are leaving out that day. We are not going to leave your streets torn up. What ABB and the Navy are attempting to do to minimize any inconvenience to the residents of Crooked River Plantation during the investigation. We plan on starting our investigation within the right of ways of the subdivisions on Friday and then continuing within the subdivision on Monday, Tuesday, and Wednesday of next week."

" We don't plan on working within the subdivision during the weekend to keep from having traffic problems that would be created with our truck out there and also, just to be able to allow your children to play in the street without our equipment around. We may be working along Spur 40 during Saturday and Sunday because the traffic is minimized during that time."

" The residential cooperation of Crooked River Plantation is a very viable aspect to the successful completion of our environmental investigation within Crooked River Plantation. I again ask that if our representative comes out to your house and your house is chosen for the direct push technology investigation, that the property owner meet with our representatives."

" We will be asking you to turn your sprinklers on for a few

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moments so we will be able to locate your sprinkler heads and verify so they won't be driven over by the truck. We will also be asking you to help us locate your water pipes, sewer lines, septic tanks, or underground structures you may have. We also request that during the operation of our truck that you maintain 25 foot distance away from our equipment and try and keep your children and pets away from our equipment while it is in operation."

" The equipment itself is very inherently safe and doesn't have anything that would really be of major concern on a safety aspect. However, it is in the best interest of people concern that we ask you to maintain that distance during the operation."

" The second phase of our testing will be the testing of select private wells within the subdivision. When all residents have received forms for testing of the private wells, due to the time constraints. We must be able to identify a public health risk assessment. We would request that the initial testing be done within the wells that we have identified as an area of concern. As time allows, the other wells will be tested. This will occur basically around the 28th of October and is when you will see the first crews out there. It is all concurrent of this 6 week process. Our first phase is basically the direct push technology and what we are attempting to do in that phase is identify the exact boundary of the plume. Right now we just know that it is located along Spur 40 and that is all we know. We are attempting to move into the subdivision and identify the outside boundaries of it. We have potentially identified these wells in this area as being the wells we are going to target for initial testing."

" As time allows we will be going back to the other wells of the other residents, who would like their wells tested and we will draw samples from those. Our first concern is getting this event in the first of sampling done by the weekend before Thanksgiving. So if we don't get the requested well it could be that we may come out in December to test your well."

" Initially we want to identify where the plume is. If you are a resident in the Crooked River Plantation, specifically residents within this area that we have identified. You are encouraged to return the sampling forms. The earlier we get the sampling forms, the quicker we can mobilize our crews and get the arrangements for the testing."

" ABB personnel will be contacting you next week and arranging a time for your testing so that if there is a time that you can be there or a time that we need to be there because your sprinklers are automatic or your well needs to be turned on for

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sampling. Our current schedule allows for our testing to begin the 28th of October and go through the 4th of November. Our people will take a few days break and resume again on the 11th November and go through the 18th of November. We work Saturdays and Sundays. During private well testing we may request of you, Saturdays and Sundays. We may try to get a lot done during that time because a lot of you are home during those times.

" The basic procedure for our testing is to locate a faucet very close to the pump itself. Turn on that pump and allow that to run for 15 - 20 minutes. During that time we measure the temperature of the water, the pH of the water, the conductivity of the water, and we also measure the flow rate. After we have done this we then fill the 40 millimeter vials and label them."

" We will be shipping those to our on-site lab for analysis of volatile organic compound. Again, a ten percent duplication will be sent to the off-site lab for verification. In addition to the ten percent duplication and once we know the boundaries of the plume; all wells within the boundary of the plume will be sent to the off-site lab for verification."

" If you have not got a faucet located near your well head, we will work with you to provide an non-destructive alternative. What I mean by non-destructive. We are not going to take the pump apart to get the samples. We may take one of your sprinkler heads off and tap the hose to it and pull a sample in that direction. We also would request that if you know the number of sprinkler heads that run at any one time, that you provide people with that information."

" The final aspect of our testing program that we are going to be doing out here is we are going to be going to Porcupine Lake and retrieving surface water samples and sediment samples. We are going to do that in two phases. We are going to take some initial samples in this first program. It may take until tomorrow and it may be this weekend. We are going to be out there in a John boat taking samples. Because this is private property we are going to request that you at least provide us access and permission to sample that lake."

" After we have sent all of our data off to the lab and have had it analyzed. We will be back and evaluate the data, validate it, do a preliminary risk evaluation, and then we will back to present that. The success of this program definitely depends on cooperation of the residence of Crooked River Plantation subdivision."

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" I would like to thank you for attending tonight. If you know of any of your neighbors that have wells that were not here tonight, or any of your neighbors who are located very close to the Porcupine Lake, we would like for them to turn in their form. I would encourage you to request they provide us with the support. I would also encourage you to talk to your neighbors that there will be people out there in the subdivision making contact with you personally."

" I would like to turn it over to Capt. Scullion now and we will be able to entertain any questions."

AUDIENCE PARTICIPATION:

Resident: Have the levels gone up, and is there a safe level? I noticed that the plume was identified as having levels higher than 40 and are levels higher than 40 in the original levels. Have the levels in the original level gone up, and what are the safe levels?

Capt. Scullion: Well, as we briefed the last time. The Environmental Protection Agency's maximum contaminant level for vinyl chloride is 2 parts per billion for drinking water.

Resident: Have the levels gone up?

Frank: When we tested in well #2 originally we were taking samples at a shallow distance, just above nine feet, or thirteen feet was the actual depth of that well. When we went back and tested with the hydrocone, we went deeper and we determined that the plume was going down as far as twenty-five feet. I think it was about sixteen or sixteen and one half feet that we got a reading just west of the landfill.

It is our intention this time, when we do the hydrocone punching that we take samples at three different depths. So we are going to try and get the shallow aquifer analyzed and characterized. I am sure that we have covered this. The initial investigation did not show the highest contaminant levels over on the west of Spur 40. The highest again is the levels back over on the landfill side and had tapered off when close to the road. We had one ground water sampling event since the last time we met, September 3rd and we have not received the data back from that event.

Resident: Is there safe levels for non-consumption?

Laura: Based on when we get, I think we are going to go one step beyond this investigation. We will are go into a confirmation

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stage. You have certain standards to follow. The risk assessment has elaborate protocol foundation to evaluate compounds and the risk associated with the activity that's why it is so imperative that we know exactly what is there and exactly how the water is being used. To make the risk assessment more accurate and working with DNR and EPA they can determine the acceptable level of the vinyl chloride based upon its use.

Frank: Vinyl chloride risk is dependent upon exposure route is ten to the minus 6. The exposure route for vinyl chloride is inhalation or ingestion. If you are not drinking the water there would be no exposure. It is not a skin contact problem.

Capt. Scullion: We have a PhD in toxicology who is working with a team of pure selective type analysis. We want them to particularly tell you about how we are going to do the investigation. He will be involved in analyzing the data. He is already linked up with Ga. Dept. of Natural Resources Senior Toxicologist and they are working out the analytical method to use once we find out what the concentrations are in air and in soil gases and coming out of the wells.

One needs to remember that Vinyl chloride dissipates very rapidly once it is exposed to air. At that point and time there is relatively low risk. And our initial very preliminary evaluation is that as long as you are not drinking that water, there is a very limited risk to public health.

With the activities I have described, you will see people running around with little meters taking air samples, etc. General types of sampling that we are doing of the air, and monitoring, it all leads back to the gathering of data to be able to perform a preliminary risk evaluation.

Capt. Scullion: That is the key thing we need to leave you here with tonight and that is that we need data. That's what this corrective measures and study is all about. Help us get the data and as soon as we have that and it has been analyzed, and it is worked its way through the Georgia Department of Natural Resources and Environmental Protection Division wants that analyzed based on their experience and qualification, and with the help of EPA, we will present this analytical results to you as soon as we have that. It may be the 3rd week of December, it may be early January. If there are serious results, we will let you know as soon as we have analyzed the information and get back to you.

Resident: I don't think you answered my actual question about the level of toxins.

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Frank: That's a problem. We don't know right now the physical levels if when you sprinkled it, since vinyl chloride is a volatile organic compound and that means that it will specifically become a gas in the air. If you sprinkled the wells and the gas is then in the air you inhale them. Then that is a potential exposure route. That is why we are out here gathering the data. We need the data so we can model it, and determine if there is exposure. This why we ask you that you do not use your sprinklers until we have the data. We can't stand here and say you're being exposed, or you are not being exposed. We don't know yet. There is a precautionary measure we ask on a voluntary basis, to please not use your sprinklers until we know what the potential of exposure is.

Resident: (Can't make out question.)

Frank: Our next phase will be made during a controlled test out there with the sprinklers, depending on the results.

Resident: If you find levels that are not acceptable, is there a long term clean up plan?

Capt. Scullion: The corrective measure study that leads us to the remedial design and again, if you were here last time, we discussed the fact that it is a rigorous process with the federal regulators and in particular the Georgia State Regulators on all the alternatives that have to be analyzed. Bringing those forward to a Technical Review Committee; which we are about to established and then having those reviewed in a public hearing so that we could come up with a best alternative for remediation, or alternatives.

Right now, we are looking at doing this under the federal law which is the Resource Conservation Recovery Act (RCRA). We believe we can stay within that legislative venue, we can move faster because that is totally controlled and regulated by the state with minimal help from the federal government. If we move outside that into the Super Fund (CERCLA) legislation as a quote, unquote "National Priorities List" site and we become designated that way. It might take longer to do a clean up because of the more stringent data that has to brought into the forefront, more regulatory analysis.

Resident: Do we get into more bureaucracy?

Capt. Scullion: There may not be a serious problem. We will work on that.

Frank: We are trying to stay within the RCRA venue. We are meeting both requirements CERCLA and RCRA. Because there could be

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a time when we cross over into CERCLA. We want to be finished we want to be out of our corrective measure study. When CERCLA ask if we have conformed with the Record of Decision, we want to meet both task. If CERCLA picks this up, we want them to be able to go back through everything and say that we concur. So we are meeting both guidelines as we walk down the paths of our cleanup.

Part of the interim corrective measures of the investigation that we are providing is that if we get this data. The data will also reach to the remediate interim corrective measures, if we need to provide something to remove the risk immediately. The rest is to provide that and proceed forward with the investigation and identify everything we have to identify. Proceed with the normal steps and that step will be a confirmatory sampling plan where we install wells and then move into the corrective measure study and provide long term cleanup of the entire problem.

We are moving forward to do that. We may have, depending on what we find, we may have intermediate corrective measures. It could be that the intermediate corrective measures could be closing down all wells out there. We don't know that yet.

Resident: The immediate corrective measures, could it also be that people will have to get out of their houses?

Frank: In our current schedule we present a draft report to the Navy for their internal review, which is kind of a preliminary report to make sure we have all of our T's crossed and our I's dotted. That report will be submitted in late January. At that time, we would have identified if the need for immediate corrective measures needs to be done.

Resident: How long will that remediation be?

Capt. Scullion: We don't know. We talked about this last time. Usually it takes years to process, years, plural, it takes years to get from the identification of contamination to the final remedial action. That is just the way the CERCLA process works and the RCRA process works.

Many of you may have read about the Brunswick problem there. We do not intend to get caught up in, if we can, in that long process. We are moving now. We have just submitted the plan for review by Georgia DNR and we are waiting for their comments. But, we are moving out. This is the same thing we did in July. We provided our information to Georgia DNR and we moved out in August before we got their comments.

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So we are not waiting around waiting for a lot of review and comments because at this point in time we are doing the right thing to the best of our ability and we are moving out and doing more testing and sampling because we want to know where this plume is. We want to know how deep it is and we want to know where horizontally it is. I can't give you an answer upon how long it will be before we get to remedial action.

The basic information I can try to provide you with tonight is we believe that by some time in the mid to late December we are going to have the results of the investigations, and we are going to have the preliminary analysis of that investigation. On that date, if we have a really serious problem, we are going to let you know that as soon as we know that. OK.

Resident: The samples that have been taken, do you intend to report (Can't make out) Something about signing the permission slip to just go in.

Frank: As I have said. If you sign the permission slip for us to be able to punch holes in your property. If your property is selected after we have finished our investigation within the right of way and we have analyzed that data and find we may need additional information from the property owners. At that time, with the signed permission slip, we will contact you and advise you that we would like to access your property. We would like to arrange a time to meet with you and if you would like to be there and watch us do it, we concur.

Resident: How long does it take.

Frank: Laura, how long does it take to get one hole done?

Larua: Well, an hour maybe two hours. I think we can do it in an hour.

Frank: Basically, what we are going to be doing is coming in and out of your property. We are going to come back and have a landscaper work for us to set up and write up the damage we've done and we will have that individual come back in. We are going to repair ruts, put new sod in, etc.. and repair your yard.

Resident: Question regarding gate that is there and fence. Your truck will not fit in the gate that is there? Will your people take care of that also?

Frank: If we run into a position where we need to get into a place that absolutely has a fence. We will probably try to avoid

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that place, at this point, in our investigation. It may be that we will just have to try and fill our data gaps the best we can.

Resident: You really didn't answer the question.

Frank: If I have to go out and destroy your fences to get in or take down the trees to get in to do my investigation. YES, I will repair your fences and YES I will re-plant that tree. If I do damage to your yard with my equipment. If we do the damage, then we will repair it.

Capt. Scullion: There has got to be some common sense here, we will apply that. Just from the stand point of if we in the initial analysis, said we want to go right there and it is not practical then we will go to the closest we can to that. If we have to take a fence down, we will put a fence back up. You have in the release agreement that once we are out of there then you basically notify us of the damage, then you don't sign off again on that release agreement until the damage is corrected.

Resident: It did not talk about tree or grass replacement. Once I sign that agreement it release you to access to my property.

Capt. Scullion: The base is not going anywhere. We are going to work with you directly. We are not going to go in there and create havoc. I purpose is to get in, get the information we can to help us all know what is down there and get out. And, we will restore your property.

Resident: Is the county in a partnership?

Capt. Scullion: At this point and time, the Navy is securing funding so that we can do the investigative to determine just what is out there. That is being done under what is the equivalent of the Super Fund, which is the Defense Environmental Restoration Account. That is the way it is procedural done. I know that we know this is the county landfill, we know that there are several sources to putting in the landfill. But, at this point and time, the Navy Installation Restoration Investigation Program and we are vary verse with the investigative recovery act and those cost that are associated with it.

Resident: With the return of the questionnaire. Is there a plan of what properties we are going to do? Do we know if they will pinpointed the well they use. Will they do mine or will they do his?

Frank: It is all right here. We have targeted these due to the

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wide response in this area. These are the people who have responded through our initial well survey. We targeted approximately 50 of these wells out in this area that we would like to draw samples. If they don't give us the permission, we can't draw the sample.

If we don't have written permission. We may knock on the door and request it. But, if they say no. If anybody says No. We won't draw a sample. We will have to try and make our evaluation off the data received. If we don't get enough data then we are not going to make a good evaluation.

Resident: You still have the right of way off of the highway and all those roads. You have at least eight feet of right of way. So even if somebody says no. Aren't you going to take advantage of the right of way?

Capt. Scullion: That is possible from the standpoint of the hydrocone testing. We are going to take advantage if the right of way in accordance with our discussion with the city manager to do that.

Frank: Even though you bring up the right of ways. Our work is probably set around the roads to Plantation Drive, Plantation Court, Cottage Court and along the right of way of Arbor Place and you can't find it. Potentially these are the areas we are going to work the right of way. Again, There is a perception out there that if even though the right of way is a road that comes up into your grass, it is right of way.

If the resident is adamant about me not sampling within their right of way, I will try and find an alternative location even though it is physically the city's right of way. We want to be cooperative. We want a cooperative spirit here. We are not going to be bullies and try to push everybody around, but, it is in your best interest to cooperate with me.

If you are in the targeted areas where we think we have a general idea of private property owners within this area. We may need access on their property to fill data gaps between Plantation Court and Cottage Court and Gate Lane. We may need a little bit up in this area. That is basically where we think we may be needing some access to the current properties.

I know a lot of residence received a form, but what we are trying to do is to get permission in case somebody doesn't receive a form or in case you have a landlord in Michigan or somewhere and doesn't really care whether he answers or not. I didn't mean

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anything against Michigan, I just used it.

Capt. Scullion: Moving right along. This is the well test consent form. It is part of the package that we put on the door hanger. Many people have already given us this and some folks are going to collect those in the back.

Resident: Once you find out the extent. I think the last meeting... do we pretty much know the horizontal and vertical boundaries of the plume?

Frank: In the areas of which we had tested. That's correct.

Resident: And, once we have determined how far west it goes. Are we going to like set up boundaries to see how vast this propagated towards the west? And, to this extent, we have no more proof of whether it is going to be years, but we have no idea how long it will take. Is there any more thought given to.. being we have pretty much established boundaries, putting any physical barrier to keep it from going west even further.

Capt. Scullion: That is certainly an alternative in the corrective measures plan. Again, once we have the data and submit that to the state; we will be working with them on what they believe. They have done all the technical alternatives that we developed to apply the appropriate corrective measures. There is a lot technology out there to deal with this type of a problem. Including barrier, pumping. There is just a lot of technology out there. We just need to identify where it is.

One of the requirements that was laid on us was when there is any contaminates in the ground, is you will have continuing monitoring of that contamination. So that burden certainly is there.

Resident: My concern at that point was if you sort of draft on into years and we don't put a physical barrier there, would it keep seeping west? Or is the clean up.... I guess that is where the technical experts take care of, but, we would like. If it were to track on for years. (Can't make out what he is saying.)

Capt. Scullion: That may well be one of the interim corrective actions is to stop that flow by throwing it back, by pumping, or by physical barrier or whether. Again, the ground water does not move that fast in this area, but you start to block it, you may wind up just diverting it. Those are things that all need to be analyzed. I don't think there is technical evidence to that at this point in time.

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Frank: Not at this point in time. That is why we are gathering data to run our models to be able to see what we need to do.

Capt. Scullion: Help us get data. That is what we need to do.

Resident: Why don't you tell something about the results of this last test involved in that one key area.

Resident: On the maps that were put out on our door this past week. There is a boundary there and what Camray Circle and Plantation Circle doesn't look like it is going to be in the exploratory part. Do those people need to sign that have wells over in that area, just in case.

Frank: We would like to have exposed wells to the western portion of that area.

Resident: The Atkins, they were under the impression because it wasn't in the stated area, that they didn't need to come because they were not going to do anything with them.

Capt. Scullion: We will be contacting them on a person to person basis. We would like to test eventually all the wells that we can test. We have intention of testing all of those wells. Right now the shaded areas are our first attempt to try and get the data. Keep in mind that we will get some data as we move along. Since we will have an on-site lab then we will have some quick turn around in samples which will lead us to follow a path as we get those results. So, what you are looking at there is the basic core of the plan. Once we get results, that will direct how we move the hydrocone machines and how we do well sampling.

Resident: Are there any fish in Porcupine Lake and are there any fish involved?

Capt. Scullion: Are there any fish involved in Porcupine Lake...

Resident: There are!

Capt. Scullion: I think at this point in time that it is not a good idea, I would not. That is a personal observation.

Frank: I think it gets a little bit beyond my technical knowledge whether vinyl chloride can be ingested through a fish would it pass on in the food chain. I would have to ask the technical expert, but that is a valid question. What I would like to do is to take that question and get a answer for you.

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Resident: You keep saying that people who have ask you to assess their wells. The form I have is you are asking me if it is OK to test my wells. If you decide not to test my wells it doesn't necessarily mean that I am asking you to come back and test them?

Capt. Scullion: That is correct. We have had number of people who have come up to us and said no matter what we would like you to test our wells and we hope to get all those wells tested. In other cases we have asked them.. We have identified wells and said in the scheme of things we would like to test this well in Phase 1 and Phase 2.

Resident: Have you already identified the wells that you want to test?

Capt. Scullion: I think we put those flyers out to about what 16 people.

Frank: Basically, I think we put the well testing to everyone. What we are looking at the well testing, we would like to test the wells from Plantation Circle, Plantation Court, Cottage Court, Cambry Circle, Gate Lane, and Arbor Place.

Capt. Scullion: If you have one of those we would like to do it.

Resident: The reason I asked that, is I am on Plantation Court. I am one of two house there. I called them and I have never heard anything back. I contacted local.

Capt. Scullion: Come up here and we will make sure we get your name and address.

Frank: If you turned it in, basically right now we are saying the time frame for our testing is it is going to start October 28th on the wells. If you turned in a form and you are in here within our initial area. You will be contacted next week to say to people when do we arrange a time. We are definitely moving but we can only move at a certain pace right now. Your well, if you are off Plantation Court. If you live right there, I would like you to come and see me for a hydrocone sampling form, because you could be in our area where we like to request access. We have additional forms if anybody didn't get a form and would like a form.

Capt. Scullion: Again, if you have a neighbor that were not here this evening, please pass the word to them. We are working this all through Mr. Sellers, the Public Affairs Officer, and Bob if you would identify yourself. He is the sub base contact. So if you

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have any questions, run them through Bob and he will funnel them in the right direction. Mayor Brandon, anything?

Mayor Brandon: It sounded like there was a bit of defensive posture on this and I would hope that is not the case. I can't imagine that anybody would have any objections to these procedures. It is to your benefit.

Resident: Since the Mayor did show up, there is a couple of questions that we had for him at the last meeting and we want to know if you have an answer to those. One was the limitation of the possible fee that is connect to city water for our sprinklers and the other one due to this scare, or what ever you want to call it, what about the property value. Whether we are going to be rated at a different rate then other areas because of the problem.

Mayor Brandon: In our opinion, the risk at this point is minimal. As far as the water break, we have discussed that and the council members have discussed that and we have had a lot of input on that from other property owners saying - don't do this, do that. In order to do that, we would actually have to know, or we would have to put in another meter basically to know how much you have been using and all this.

Resident: That is the break I am talking about. In regards only to sprinkler and not pay the sewer fees.

Mayor Brandon: I don't think council would do anything about that.

Resident: Right. No help from the City.

Capt. Scullion: I have from Ms. Mahaney that the step does involve, from the stand point of the minutes of the council meeting and stuff, but I know it has been very articulately presented through the city council. I am not in their shoes. They have got to do their job.

Resident: Mayor, you said that, and not in the land value or something of that nature, but anyway, your assessment rate for taxing purposes; is that going to be changed? Are the property values going to go down. Anyway, the assessment for taxing purposes - is that going to be changed? If there is a danger will the property value be going down and will the assessment rate go down?

Mayor Brandon: Well, the way that works. The assessment generally depends on actual sales in the area and so forth. If in fact, property values do, whether it is artificial or not, drop and sales

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suffer, and so forth, then the Tax Assessor is going to take that into account. That is how they assess property. Sales of comparable buildings in a particular location, so, yes if it turned out to be a hazard and sales suffered, the Tax Assessor would take that into consideration.

Resident: Another question for the Mayor. The next time you bring this forward to the committee. Would you notify the residents, and are we allowed to attend those meetings?

Mayor: Absolutely! Yes you are. Every new meeting we have.

Resident: Can't make out exact question. Resident ask question about when the public was made aware.

Capt. Scullion: As far as when this was made public. We put out mailers in the last couple of days of August. We went through the local press and media, the local radio stations. I think it brought heavy paper coverage, Jacksonville paper coverage. We have done everything we can.

Resident: Makes a statement that they just moved from California and bought a house in August in Crooked River Plantation and was not told about any of this.

Frank: To answer your question. We basically confirmed, withdrew our investigation, we did in early August and we got a confirmation back on about the 26th or 27th of August that we had a release that it was migrating off base property. That Monday, you received notification. The 26th and the 27th were a Wednesday and Thursday. That following Monday you received a notification that there has been migrating, please come to a public meeting.

You receive the data as soon as we get it. I mean, there may be a few hours where we prepare our FAX sheets and get our things out. But, as quickly as we get our data evaluated and we have a potential for concern we immediately would tell you. We would notify you as soon as we know it.

Capt. Scullion: Closes the meeting and request everyone to bring their forms and informs that they will stand by for other questions.

31547.000
13.05.00.0003



November 24, 1992

Commanding Officer
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
P. O. Box 10068
Charleston, SC 29411-0068

ATTN: Ed Lohr

Subject: Overheads from Meeting Minutes - Public Session
ICM Screening Investigation - Site 11
Naval Submarine Base, Kings Bay, GA
Contract Task Order No. 041
Prime Contract N62467-89-D-0317

Dear Mr. Lohr:

Enclosed are two copies of the overheads used in the September 3, 1992 Public Meeting. These were inadvertently omitted when the meeting minutes were mailed.

If you have any questions, please call me at (615) 531-1922.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

A handwritten signature in black ink, appearing to read 'Frank Cater'.

Frank Cater, P.E.
Task Order Manager

Enclosures: As Stated

pc: Mr. Jim More, NSB Kings Bay - 3 sets

ABB Environmental Services Inc.

KingsBay(TM3)-92/117.PLR

OLD COUNTY LANDFILL

INTERIM CORRECTIVE MEASURES
SCREENING INVESTIGATION
PUBLIC INFORMATION SESSION

15 OCTOBER 1992

ACTIVITIES TO DATE OLD CAMDEN COUNTY LANDFILL

- ACTIVITIES CONCENTRATED AT LANDFILL
(JAN., FEB., & MAY 1992)
 - DELINEATED LANDFILL BOUNDARIES
 - DETECTED POSSIBLE LEACHATE
DOWNGRADIENT OF LANDFILL
 - INSTALLATION AND SAMPLING OF 9
MONITORING WELLS; VINYL CHLORIDE
DETECTED IN MONITORING WELL
SAMPLES AT 18 AND 64 PARTS
PER BILLION; OTHER VOLATILE
ORGANIC COMPOUNDS ALSO DETECTED

ACTIVITIES TO DATE

OLD CAMDEN COUNTY LANDFILL

- PHASE I INTERIM INVESTIGATION
DIRECT PUSH TECHNOLOGY - ALONG WEST
SIDE OF LANDFILL (JUL., AUG., 1992)
 - GROUNDWATER SAMPLES COLLECTED ALONG
WESTERN BOUNDARY OF LANDFILL AND
ALONG WEST SIDE OF GEORGIA SPUR 40
 - VINYL CHLORIDE WAS DETECTED AT DEPTHS
OF 9-25 FEET BELOW GROUND SURFACE AT
VALUES RANGING FROM 2.8 TO 1,400 PARTS
PER BILLION. OTHER VOLATILE ORGANIC
COMPOUNDS WERE ALSO DETECTED.
 - CONTAMINATION PLUME CONFIRMED WEST OF
GEORGIA SPUR 40

ACTIVITIES TO DATE

OLD CAMDEN COUNTY

- CITY/COUNTY OFFICIALS NOTIFIED
- PUBLIC INFORMATION SESSION 3 SEP 92
- GA DNR/EPA REGION 4 SESSIONS 9 SEP 92
- FORMAL GA DNR ACKNOWLEDGEMENT
29 SEP 1992 - RCRA DRIVEN
- INTERIM CORRECTIVE MEASURE
SCREENING INVESTIGATION DEVELOPED
- IMPLEMENTATION OF ICMS INVESTIGATION

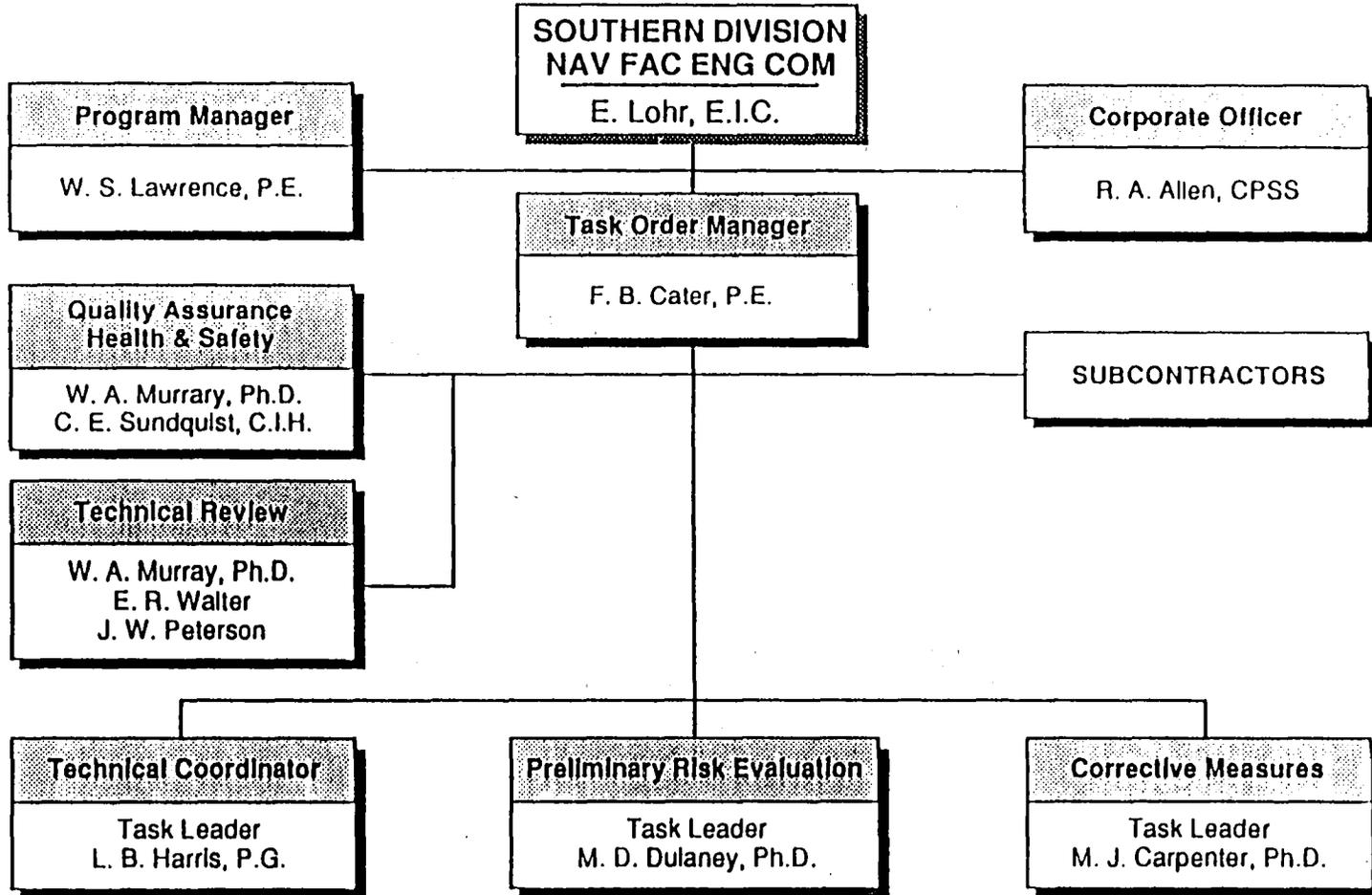
OBJECTIVES OF SCREENING

- DETERMINE EXTENT OF GROUNDWATER CONTAMINATION
- DETERMINE CONCENTRATION OF CONTAMINANTS
- EVALUATE FOR MIGRATION OF CONTAMINANTS IN AIR AND SOIL
- EVALUATE POTENTIAL HEALTH RISKS

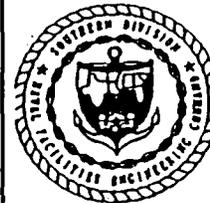
SCREENING APPROACH

- ON SITE SAMPLING AND ANALYSIS
OVER 6 WEEK PERIOD
- ON-BASE (LANDFILL AREA),
RIGHT-OF-WAY, PRIVATE PROPERTIES
- GROUNDWATER, SURFACE WATER,
WELL WATER, SOIL GAS, AIR AND
SEDIMENTS SAMPLING
 - DIRECT PUSH TECHNOLOGY

DETAILS BY ABB ENVIRONMENTAL SERVICES, INC.

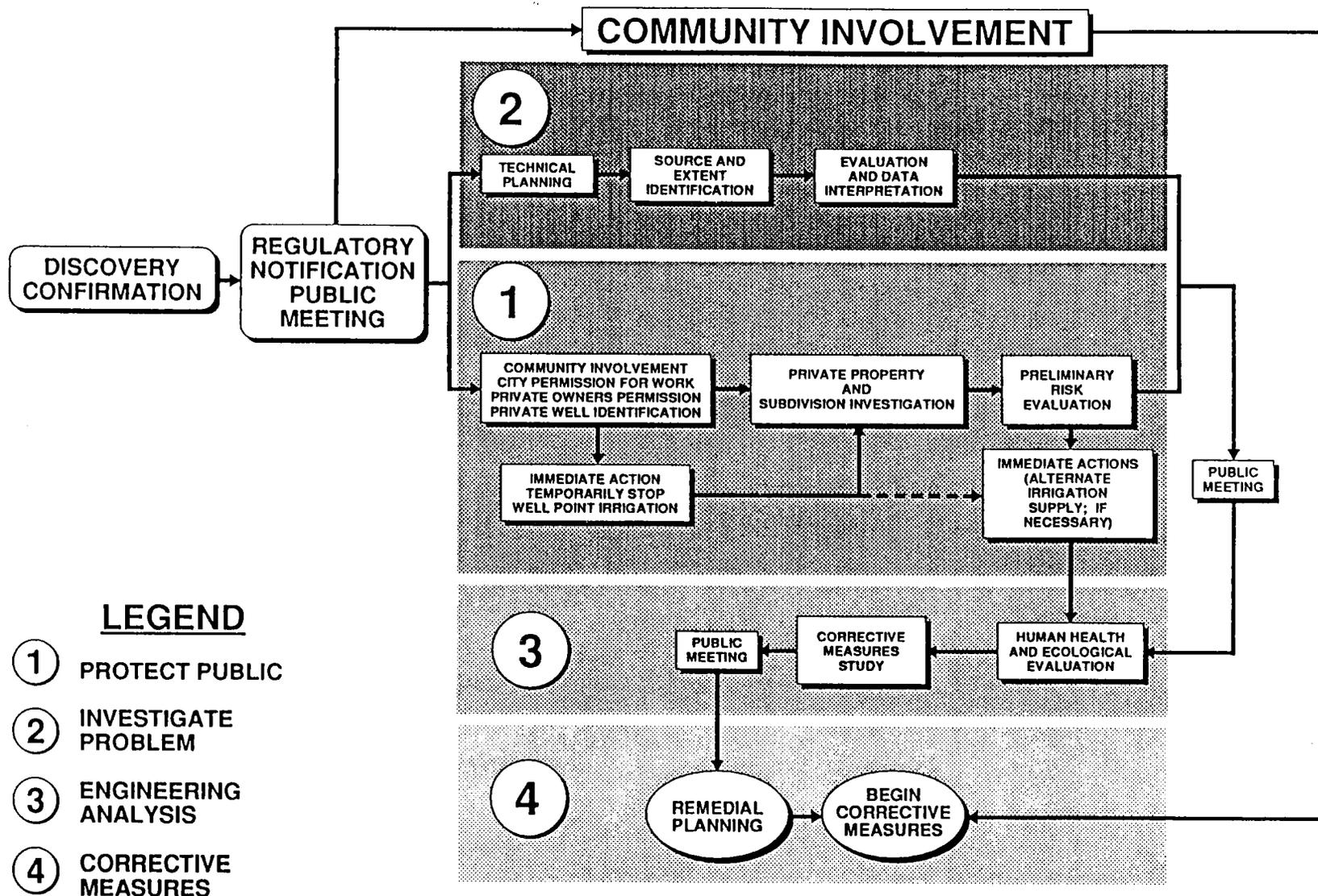


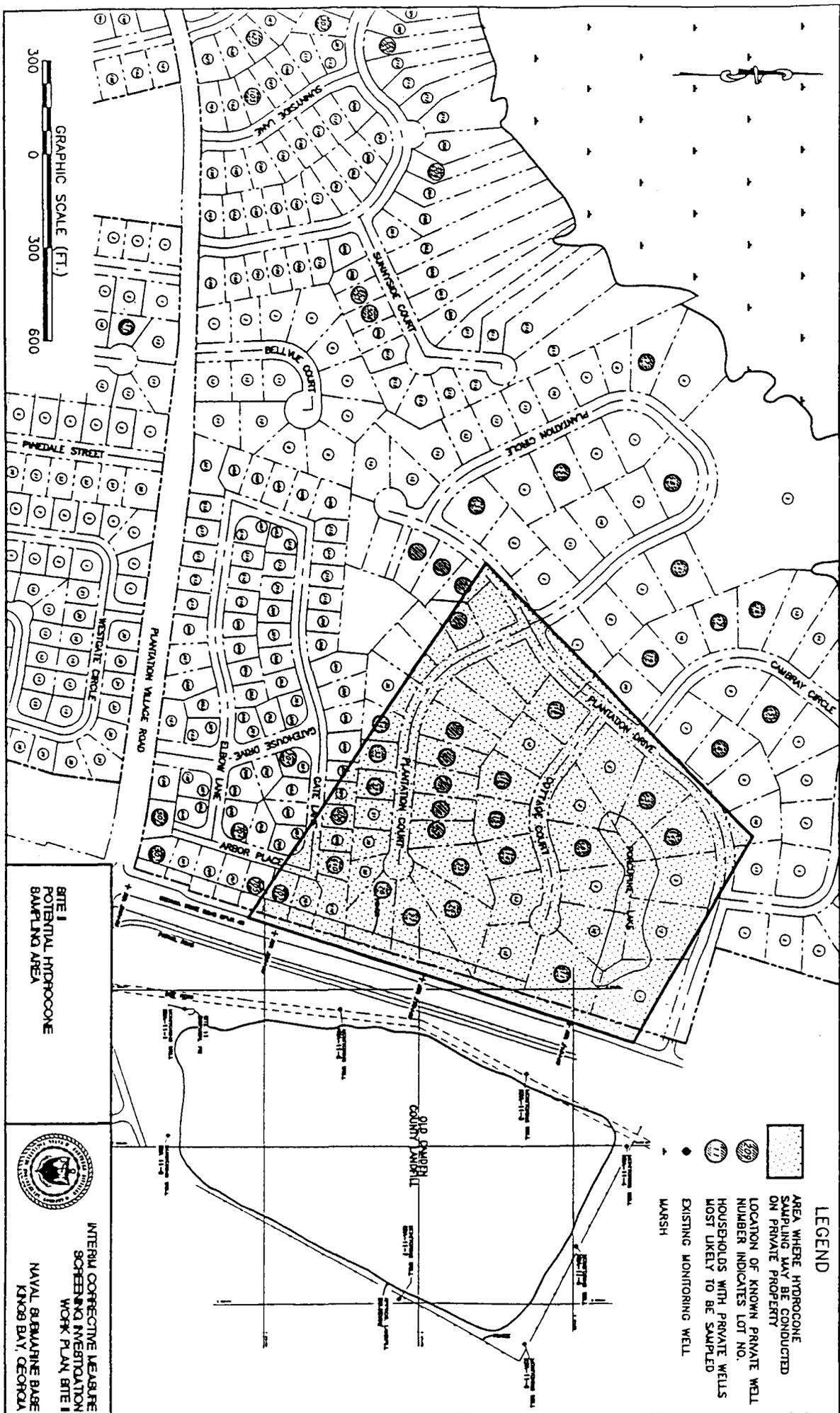
**FIGURE 5-1
PROJECT ORGANIZATION**



**INTERIM CORRECTIVE
MEASURE INVESTIGATION
WORKPLAN**

**NAVY SUBMARINE BASE
KINGS BAY, GEORGIA**



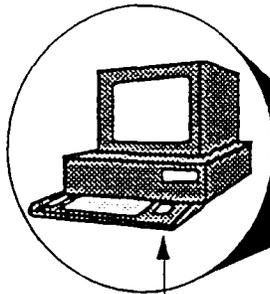


BITE I
 POTENTIAL HYDROCONE
 SAMPLING AREA



INTERIM CORRECTIVE MEASURE
 SCREENING AND INVESTIGATION
 WORK PLAN BITE I
 NAVAL SUBMARINE BASE
 KNOX BAY, GEORGIA

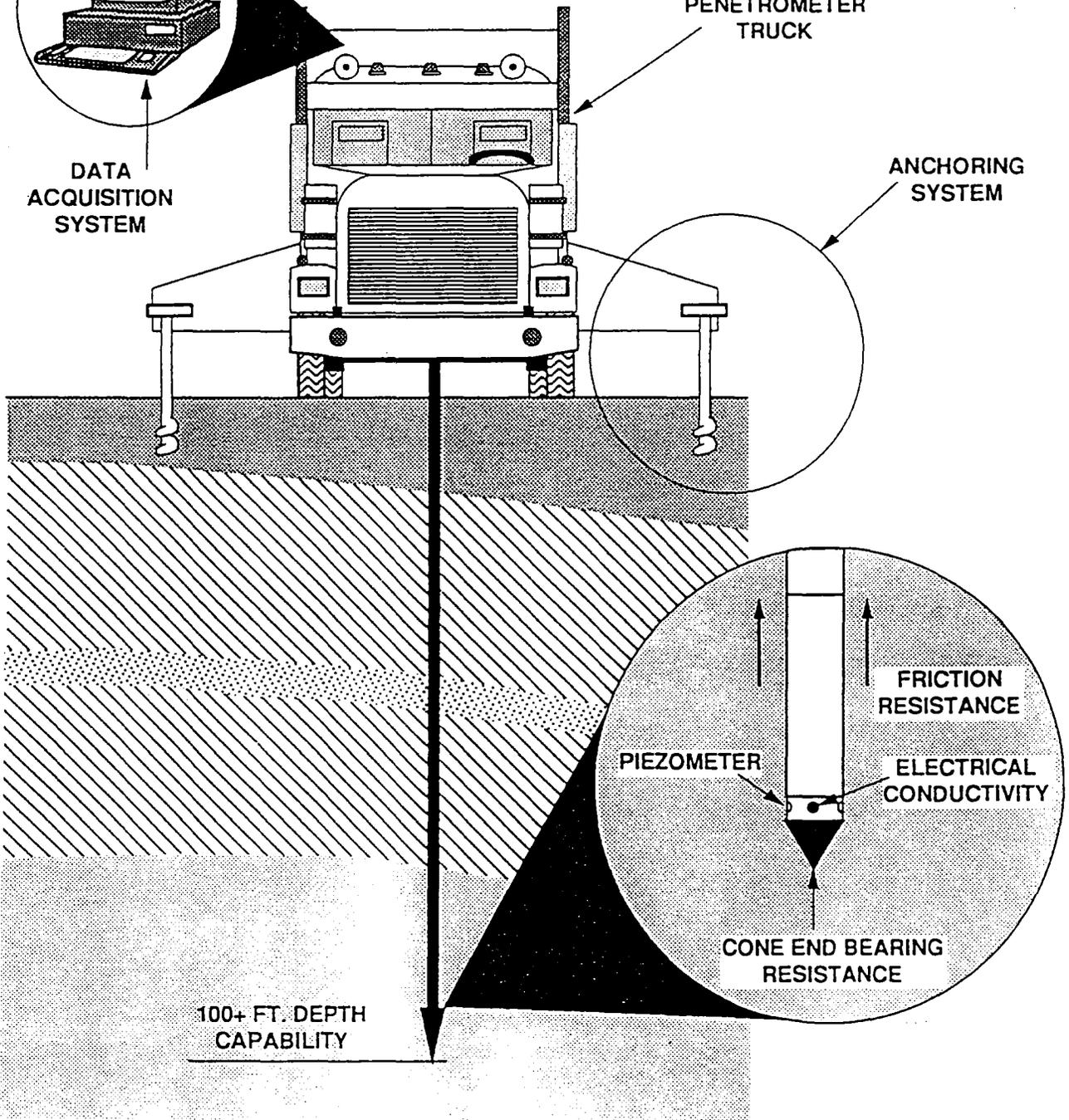
- LEGEND**
- 
 AREA WHERE HYDROCONE SAMPLING MAY BE CONDUCTED ON PRIVATE PROPERTY
 - 
 LOCATION OF KNOWN PRIVATE WELL NUMBER INDICATES LOT NO.
 - 
 HOUSEHOLDS WITH PRIVATE WELLS MOST LIKELY TO BE SAMPLED
 - 
 EXISTING MONITORING WELL
 - 
 MARSH



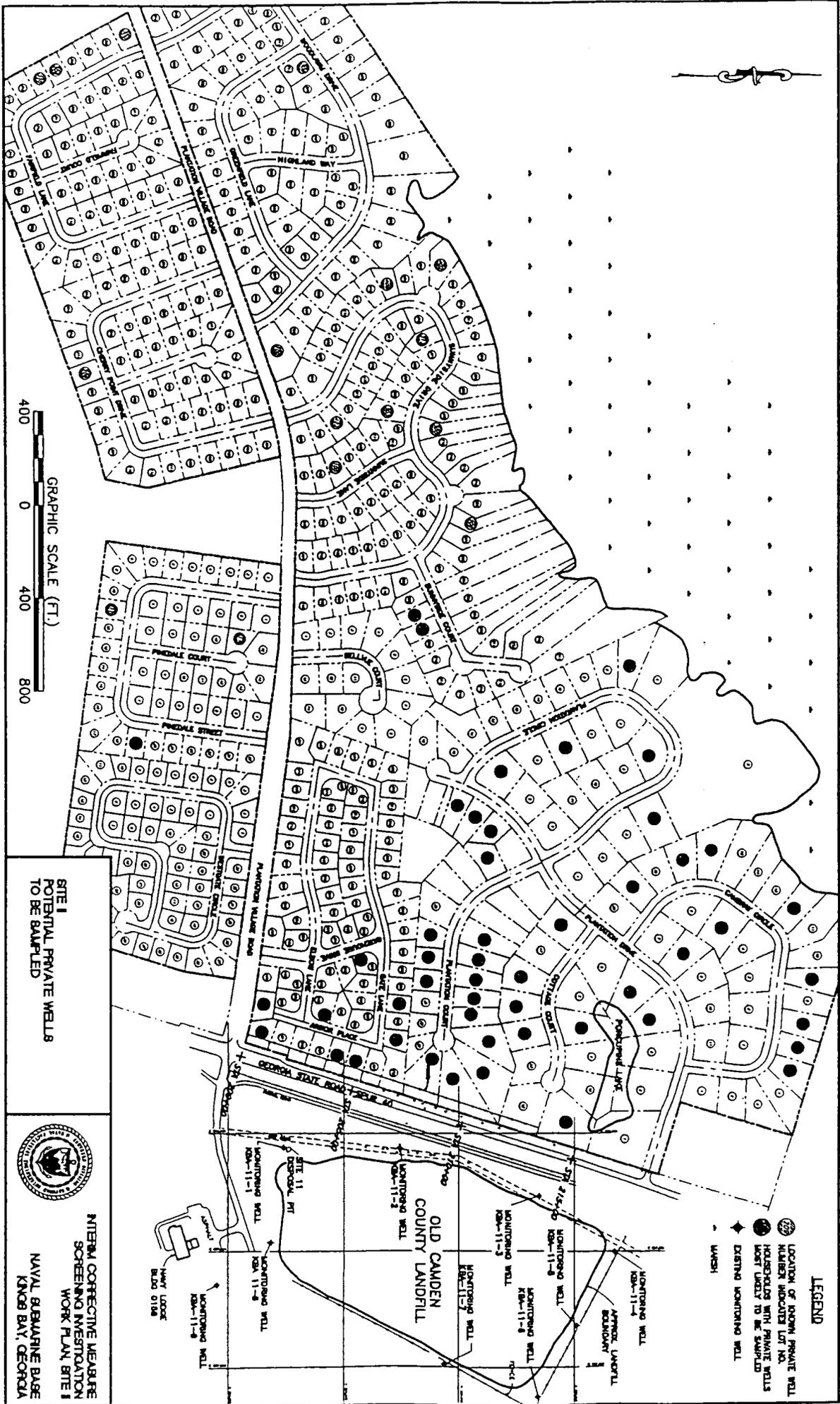
DATA ACQUISITION SYSTEM

PENETROMETER TRUCK

ANCHORING SYSTEM



HYDROPHONE TECHNOLOGY



**SITE I
POTENTIAL PRIVATE WELLS
TO BE SAMPLED**



**INTERIM CORRECTIVE MEASURE
SCREENING INVESTIGATION
WORK PLAN, SITE I
NAVAL BURNING BASE
KING BAY, GEORGIA**