THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

convenes the

FIFTH MEETING

CAMP LEJEUNE COMMUNITY ASSISTANCE

PANEL (CAP) MEETING

MARCH 23, 2007

The verbatim transcript of the Meeting of the Camp Lejeune Community Assistance Panel held at the ATSDR, 1825 Century Boulevard, Atlanta, Georgia, on March 23, 2007.

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TRANSCRIPT LEGEND

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-- (sic) denotes an incorrect usage or pronunciation of a word which is transcribed in its original form as reported.

-- (phonetically) indicates a phonetic spelling of the word if no confirmation of the correct spelling is available.

-- "uh-huh" represents an affirmative response, and "uh-uh" represents a negative response.

-- "*" denotes a spelling based on phonetics, without reference available.

-- "^" represents inaudible or unintelligible speech or speaker failure, usually failure to use a microphone or multiple speakers speaking simultaneously.

PARTICIPANTS

(alphabetically)

BOVE, FRANK, ATSDR BRIDGES, SANDRA, COMMUNITY MEMBER BYRON, JEFF, COMMUNITY MEMBER CLAPP, RICHARD, SCD, MPH, SCIENTIFIC EXPERT DYER, TERRY, COMMUNITY MEMBER ENSMINGER, JERRY, COMMUNITY MEMBER FISHER, JEFFREY, PH.D., SCIENTIFIC EXPERT MARTIN, DAVE, COMMUNITY MEMBER MCCALL, DENITA, COMMUNITY MEMBER RENNIX, CHRIS, NEHC RUCKART, PERRI, ATSDR STALLARD, CHRISTOPHER, CDC, FACILITATOR TOWNSEND, TOM (VIA TELEPHONE)

PROCEEDINGS

(9:00 a.m.)

WELCOME, ANNOUNCEMENTS, CAP MEMBER ISSUES

1

2	MR. STALLARD: Welcome back, everyone. Once
3	again we have the pleasure of our CAP meeting.
4	My name is Christopher Stallard, and I'll be
5	your facilitator again today. Before we get
6	really moving on I'd like to address that
7	these are the guiding principles that we have
8	had in the past, and I would like to ask if
9	you have anything else to add to them or to
10	remove them?
11	First of all, this is a public
12	meeting. Be aware that we're being streamed
13	and broadcast and documented in many different
14	ways. Cell phones and Blackberries on stun,
15	that includes hi, Sandra, welcome.
16	MS. BRIDGES: I'm sorry.
17	MR. STALLARD: That's all right, you're
18	here.
19	That includes the audience, please.
20	Audience, you are here to observe only unless
21	you're called upon by the CAP member in which

1 case you have a choice to respond or not, but 2 you may be potentially a resource for the CAP. 3 One speaker at a time, zero personal 4 attacks, and please speak into the 5 microphones. I understand that helps in the 6 recording. 7 Is there anything else anybody would 8 like to add to the guiding principles at this 9 time? 10 (no response) 11 MR. STALLARD: Okay, then the next most 12 important order of business is that you really 13 need to place your lunch orders so that we get 14 them on time. We will stop at 12:00 o'clock 15 prompt, hard stop, mid-sentence, and we're 16 going to stop streaming. 17 Looking at the agenda I need to tell 18 you that it's a little bit more flexible than 19 it has been in the past, and we can be somewhat forgiving on time. However, I only 20 21 have as much influence as you allow me, and in 22 the past you've been very gracious for the 23 most part. So we're going to start this 24 session off a little bit differently and 25 provide each member five minutes -- and I have

1	a timer here with a little beeper just so you
2	know. So I'm asking that you honor the
3	beeper, and if need be I can, you know, maybe
4	a couple seconds.
5	MR. ENSMINGER: Can I ask and see if anybody
6	wants to give their time up?
7	MR. STALLARD: That's buying credits, right,
8	environmental credits.
9	MR. ENSMINGER: If you can get five more.
10	MR. STALLARD: So that's what we're going to
11	do. It would be an opportunity for you to
12	introduce yourself, for those perhaps in the
13	audience and those who might be listening, and
14	then also an opportunity to speak what's on
15	your mind before we get into the program
16	proper. So who's going to start?
17	MR. ENSMINGER: I will.
18	MS. DYER: Chris, why don't you let us start
19	and then whatever time we have left, give it
20	to Jerry then, and then that way he'll have
21	more.
22	MR. STALLARD: IS CAP agreed on that
23	solution?
24	(affirmative response)
25	MR. STALLARD: All right, then so be it.

1	But wait a minute, then that would be, what's
2	the total amount of time?
3	MS. DYER: Don't count us.
4	MR. STALLARD: I counted. I think I can do
5	the math. Go ahead. Speak into the
6	microphone in front of you.
7	MS. DYER: My name is Terry Dyer. I'm a
8	member of CAP and I'm with the stand. I don't
9	have much to say, just that I'm frustrated
10	that the amount of time things are taking. It
11	still frustrates me. I'm still getting calls
12	from people that have just heard about this.
13	So I guess my thing this morning is just
14	frustration.
15	I don't see that we've really gone
16	anywhere, and I know people are going to come
17	back and say that we have, but how many times
18	have we met here and we still haven't come up
19	with the things that we were supposed to. So
20	there's just a lot of frustration on my part,
21	and I'm tired of it. I just would like to see
22	some more speed in this. I've had several
23	people that have died, and that's the kind of
24	stuff I have to deal with, is hearing about
25	deaths.

1 And you all don't, and maybe you need 2 to. Maybe that would speed you up if it was 3 members of your family that were dying. These 4 are people that I've met and talked with and 5 formed relationships with, and it's not easy. 6 So I think that's mostly it. And I just think 7 that the Marine Corps needs to, you know, we 8 need to start hearing from the DoD and start 9 getting these people healthcare and 10 compensation. 11 MR. STALLARD: Thank you, Terry. 12 MR. MARTIN: Hello, my name's David Martin. I'm from ^, North Carolina. I was born in 13 14 Camp Lejeune in 1958 and lived in base housing 15 on three different occasions for approximately 16 seven years. I've had a personal loss in my 17 family of my mother, a younger sister and my 18 father recently passed this past year, because 19 of complications of several things that he got 20 while serving three tours of duty in Viet Nam 21 and in Korea in the United States Marine 22 Corps. 23 My big issue has been and continues to 24 be notification of the people that have been 25 affected by these toxins. We've heard

1	estimates of upwards to 500,000 people have
2	been exposed to these illnesses or to these
3	toxins, that have no idea, as I did for almost
4	30 years, why their loved ones are being,
5	becoming sick and dying, and themselves as
6	well.
7	I found out about this tragedy when I
8	picked my brother up who's 50 years old or was
9	50 years old at the time from the University
10	of Chapel Hill Hospital after having major
11	surgery for colon cancer which removed part of
12	his bladder, the stomach and other portions of
13	his colon. He's now doing well, thank God.
14	There's always that 40 percent chance of
15	recurrence that he has to live with on a day-
16	to-day basis.
17	And I just think it's inexcusable for
18	my family to live 12 miles from the main gate
19	of Camp Lejeune, North Carolina I've lived
20	in North Carolina all my 49 years except for
21	when my father was overseas and to not hear
22	about this until 20-some-odd years later. I
23	feel that there are several hundreds of
24	thousands of people out there that are sick at
25	this moment.

1 There are several people since I've 2 been involved in this for the last year and a 3 half that are no longer with us. And I think 4 it's time that we quit dragging our feet and 5 identify the people that were at Camp Lejeune, 6 and we let them know what's going on in their 7 lives. Thank you. 8 MR. STALLARD: Thank you, Dave. 9 MS. McCALL: Good morning, my name is Denita 10 McCall. I'm from Littleton, Colorado. I was 11 a Marine stationed at Camp Lejeune back in 12 I contracted cancer 18 years later, and 1982. 13 I ditto everything that Terry and Dave have 14 said regarding the amount of time it's taking 15 to notify people. I think this is probably 16 one of the most important issues above and 17 beyond anything that we sit here and talk 18 about. There are people out there that are 19 exposed to VOCs and have a right to know what 20 happened and what is happening to them as a 21 result of their service or their father's 22

service in the military. And I can't tell you how frustrated I am and deeply disturbed that the Department of Defense won't step up and let people know.

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1 MR. STALLARD: Thank you, Denita. 2 MR. BYRON: Good morning, my name's Jeff 3 Byron. I'm in the Cincinnati, Ohio area. I 4 served in the Marine Corps from '81 to '85. 5 Two of my daughters have been affected by the 6 groundwater contamination from Camp Lejeune to 7 my estimation. When I look at this chart 8 here, it pretty well confirms it. 9 My largest concern is the inactivity of DoD to come forth with the information we 10 11 need to further studies for the children that 12 were exposed prior to in utero, or I mean, 13 they were born and then were exposed and also 14 the adults. Now, that's the main goal of this 15 CAP, and when I see that it's six months 16 between meetings that concerns me because that 17 tells me we're not getting the information 18 that we need from the DoD. I'm hoping that 19 the ATSDR has some information from DMDC and that Dr. Rennix can, you know, help us out in 20 21 that situation. 22 The other concern I have is a letter 23 or actually an e-mail from ATSDR that was 24 forwarded through ATSDR from Lt. Colonel 25 Tencate. It just shows me that from the

beginning that they're not really that interested in helping. They're more here to sit and find out what's actually going on so that if there is any litigation, which he's the only one who's brought up any in this letter, that they know, you know, how to defend themselves which to me they don't have much of a defense.

9 But they've spent millions of dollars 10 on studies, and we're sitting here, you know, 11 This has been two years now, going on what? 12 two years? We still haven't even decided that 13 we have the information to conduct another 14 survey. So I'd like to see the process happen 15 quicker as Terry and Dave, Denita have spoken 16 about. And I'd like to see some true 17 cooperation from DoD, and I know they're 18 sitting in the audience.

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19If it was your family that was20affected and your children, and you were going21to bed at night wondering what happened, and22then you found out after you served in the23Marine Corps -- And we love the Marine Corps.24Don't get us wrong. We just don't love the25leadership because what they teach a Marine is

1 loyalty and honor, and they've shown none in 2 my estimation. And when they start to show 3 some, then I can wear the Marine Corps ring 4 with honor and pride again. I can't even put 5 on the insignia even though I served honorably 6 for four years because I don't know what my 7 children will think of me for wearing the 8 insignia of individuals who allowed toxic 9 water to go to my home knowingly because I 10 didn't move in `til 1982. 11 That's really all I have to say 12 because I'm getting a little upset, but that's 13 my concern with this meeting today. Is can we 14 get this process moving quicker so that those 15 individuals who need help -- and by the way, I 16 know what my daughter has. I have verified 17 She is now qualified to get help so it. 18 medically we are getting some assistance now; 19 whereas, before I wasn't. 20 I paid \$11,000 out in medical bills 21 this past year. My daughter has no insurance. 22 Seven thousand of that was just to cap teeth. 23 She's 21 years old. I have all my teeth. My wife has all her teeth. My daughter's had six 24 25 extracted already. So we live with it every

1	single day. So you guys that are in the
2	audience, you go back and tell your superiors
3	what these people are experiencing because
4	we're really kind of fed up with your delay.
5	That's all I have to say.
6	MR. STALLARD: Thank you, Jeff.
7	MR. MARTIN: I have one more issue if I
8	could, Jerry, and then I'll turn it over to
9	you.
10	Another big issue that I've found in
11	my research in trying just to even prove that
12	my family had anything to do with the United
13	States Marine Corps was the shoddiness or the
14	intentional destruction or loss, or I don't
15	know what to call it, of our medical records.
16	My father's records were supposedly
17	transferred from St. Louis to a VA hospital in
18	the 1990s. They have no, absolutely no record
19	of him being in the service or ever receiving
20	medical treatment from the records in St.
21	Louis. Our mother's file with her kidney
22	disease I remember being, when I was ten,
23	twelve years old walking through Camp Lejeune
24	Naval Hospital, was the size of a good-size
25	encyclopedia. They sent me three pages of

documentation for her medical records. My youngest sister they could not even locate, and she was born in Camp Lejeune Hospital in 1964. Those records are somewhere. They're being withheld. They've been stopped up or put somewhere to where we do not have access to them. And I think once these people are notified, you guys are looking at a disaster. So I honestly think an investigation should be started to find out where these medical records are. Thank you. Jerry?

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MR. STALLARD: Thank you, Dave. Well, we have Sandra. Did you have anything?

14 I agree with everyone, and I'd MS. BRIDGES: 15 also like to say it's gone on to the second 16 generation, too. And by the time these people 17 are notified, the people that were there have 18 other problems. And you've got alcoholism and 19 other problems, drugs, and pretty soon those 20 problems that they have, they were created. 21 They got pushed back, and they've got more 22 things to think about, and they're not in a 23 position to do or to be aware of what's going 24 on. 25 Jerry.

MR. ENSMINGER: One second. I would like to make something clear. Sandra said it has gone into the next generation, and that is true. We have tests on my grandson, and he has the same disease my daughter has. MS. BRIDGES: And it just so happens, and we

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found this out just recently, that Jeff and his wife lived on the same street in different courts, one down from each other.

MR. BYRON: And the toxicological profiles of these chemicals say they'll be mutanogenic and carcinogenic. Now I don't know what the question in this is that you don't understand that you've affected people's lives. And you've taken no action to help them other than hold a bunch of meetings, write a bunch of publications that doesn't do anything to help a single soul. Now, if it's to understand it better that's why we're here, too, and so that doesn't happen again. But let's make sure it doesn't happen again. Thank you.

MS. BRIDGES: All of our children have the same thing.

MS. DYER: One quick thing. That's, what Jeff just brought up I really have to kind of

1 go along with that. The fact that these 2 chemicals, most of them, are known 3 carcinogens. And so we keep getting this 4 thing from them, well, we've got to have 5 causation, got to have causation. We've got 6 to have this link, but it seems like most of 7 the, ATSDR, they're not real conclusive when 8 they come to, you know, when they're testing 9 these things. 10 You look at their books and a lot of 11 it, they don't really come to any conclusion. 12 But a lot of them we know are carcinogenic, so 13 they poisoned, we were poisoned. It's a 14 possibility we get cancer. What else do we 15 have to study? I mean, it's out there. We 16 know it. And they know now the levels, and 17 we're not getting help. I'm sorry, when you 18 said the carcinogenic, it's true. 19 And that's what's so frustrating in 20 this stuff is that they know that these 21 chemicals kill people. They might not kill you today, but you've got a death sentence for 22 23 the future, and it's not the kind of death 24 that I want. It's just not right. It's just 25 been so frustrating. It's hard.

1 MR. STALLARD: We have other members of the 2 CAP, not just those who represent the 3 community so you all have an opportunity at 4 least to say your name, and who you represent, 5 and what you're here to do on the CAP as we 6 are together now over two years. 7 **DR. FISHER:** My name's Jeff Fisher. I'm one 8 of the two experts on this panel. I'm a 9 toxicologist from the University of Georgia, 10 and I'm here to try to help the citizens 11 understand technical information, look up new studies and assist with whatever I get asked 12 13 to do. 14 MR. STALLARD: Thank you. 15 DR. CLAPP: My name's Dick Clapp. I'm at 16 Boston University School of Public Health, and 17 I'm a second expert member that was asked to 18 join the CAP. And I do studies of communities 19 exposed to chemicals including 20 trichloroethylene and including Woburn, 21 Massachusetts, for example, where there was a 22 childhood cancer cluster, an excess of 23 childhood leukemia that I think was related to 24 trichloroethylene exposure in their drinking 25 water. So I'm here to try to bring that

1 history and experience to the CAP. And I 2 should also say I was asked by, I guess it was 3 Perri, to circulate a PowerPoint that I had 4 done at a conference, a presentation I had 5 done at a conference about a year ago in 6 Baltimore for a group that was meeting there 7 organized by the Center for Health, 8 Environment and Justice. So it was a 9 PowerPoint for another group. It wasn't done 10 for a CAP, and I wanted to clarify that. 11 MR. STALLARD: Thank you. 12 DR. RENNIX: Good morning, my name is Chris 13 Rennix. I'm with the Navy Environmental 14 Health Center. In my role with CAP I'm an 15 advisor and to ATSDR on how to get access to 16 data, medical data, medical records, and to 17 try and bring some perspective to the 18 availability to the medical system. 19 MR. STALLARD: Thank you, Dr. Rennix. 20 DR. BOVE: My name's Frank Bove, Division of 21 Health Studies, ATSDR. 22 MS. RUCKART: Perri Ruckart, ATSDR, Division 23 of Health Studies, and we've been working on 24 Lejeune for a number of years. We're familiar 25 with a lot of the issues and things that

1 people are talking about here today. 2 MR. STALLARD: Thank you, Perri. 3 Okay, Jerry. 4 MR. ENSMINGER: Does Tom want to say 5 anything? What about Tom? 6 MR. STALLARD: Yes, thank you, Tom. 7 MR. TOWNSEND (by Telephone): Yes. 8 MR. STALLARD: Welcome. You have an 9 opportunity to speak and introduce yourself 10 and share with us. You can do that now. 11 MR. TOWNSEND (by Telephone): It's very dark 12 and cold in Moscow, Idaho at the moment. I'm 13 sure you're all warm and toasty. My family 14 and I lived in Camp Lejeune in 1955 to 1956 when I was First Division and later went to ^ 15 16 after the drowning incident. The second time 17 my family lived in Camp Lejeune was in 1966 to 18 ′67. 19 At that period of time my wife 20 conceived and bore a child, Christopher, who I 21 knew for six weeks. I went to Camp ^ Puerto 22 Rico as the commanding officer, and my wife at 23 her six weeks check-up was found to be, 24 obviously ^ APGAR 3 ^ and he died in early 25 1967. I retired from the Marine Corps in 1975

1	after 25 years and moved to Idaho. And in
2	2006 or 2004 or `05, my wife had a significant
3	tumor removed, ^ removed ^ pathological
4	problems, and died last year, February 22^{nd} as
5	a result of the contamination. ^ 40 years ago
6	^ spectacular time period.
7	I have worked ever since the year 2000
8	developing the material and written some 1500
9	Freedom of Information requests and my entire
10	library of data has been turned over to my
11	legal advisor. I hope that we can move
12	forward, continue to move forward. It seems
13	slow to me, but I understand what the problems
14	are, and I'm interested in hearing what
15	progress is being made. Thank you.
16	MR. STALLARD: Thank you. Thank you, Tom.
17	There, thank you, Tom.
18	All right.
19	MR. ENSMINGER: I'm Jerry Ensminger. I'm a
20	Camp Lejeune captain, and I'm a retired
21	Marine. My daughter, Janie, was conceived
22	while her mother and I lived in Camp Lejeune
23	in the 1970s. She subsequently was diagnosed
24	with leukemia. She suffered for nearly two
25	and a half years and died. I found out at the

1 last CAP meeting, we put it to a vote that we 2 didn't think that the Marine Corps should be 3 represented on the CAP by an attorney. And we voted Lieutenant Colonel Tencate off the CAP. 4 5 Shortly following that CAP meeting as Jeff 6 Byron spelled out, we got a message that was 7 sent originally to Perri Ruckart to distribute 8 to all the CAP members from Colonel Tencate, 9 and I'm going to read this. "Fellow CAP members, at the last CAP 10 11 meeting you decided that you did not want me 12 to act as the Marine Corps member of the CAP 13 due to the fact that I am a Marine Corps 14 attorney. You asked that a different person 15 sit at the table and represent the Marine 16 Corps. 17 "As promised, the Marine Corps has 18 considered your request. We debated different 19 options and finally concluded that the best 20 course of action would be for us to return to 21 our original ex officio status. That is, we 22 will not have a Marine Corps representative 23 sitting at the table. The purpose of the CAP 24 is to voice the concerns of the affected 25 community of Marines and their families and to

provide input for future health studies.
"We feel that it is important to
listen to the discussions of the CAP members
during the meetings and to provide input as
appropriate. However, the primary purpose of
the CAP is to provide input for future health
studies. Recognizing this we nominated Dr.
Rennix, a public health study expert, to
participate and offer input. Unfortunately,
because the CAP forum is openly being used as
a litigation tool, our participation is
necessarily constrained.
"We will continue to attend the CAP
meetings and be available to answer questions
from the audience. Dr. Rennix will continue
to sit at the table as an epidemiology subject
matter expert. We remain committed to
participating in the CAP process and providing
as much helpful information to the members as
possible."
Let's not accept this thing. First,
he said you asked that a different person sit
at the table and represent the Marine Corps.
Absolutely. It was the Marine Corps in
defense of litigation that put an attorney on

1	this CAP. When I asked for, and this CAP
2	asked for a representative from the Marine
3	Corps, who did they see fit to put on it? An
4	attorney.
5	Why not the subject matter expert from
6	Headquarters Marine Corps, Kelly Dreyer, the
7	one that's been involved in this since the
8	early 1990s? So who's bringing up litigation?
9	It was the Marine Corps first. "We debated
10	different options and finally concluded that
11	the best course of action would be for us to
12	return to our original ex officio status."
13	That was the stance that the Marine Corps
14	initially took about participating in this
15	CAP.
16	Now, that lends to the fact that
17	somebody in the leadership really doesn't give
18	a damn about the former members of the Marine
19	Corps and their families. If you did, you
20	would have been chomping at the bit to be here
21	to help get this thing situated and
22	straightened out. And he said we will not
23	have a Marine Corps representative sitting at
24	the table. We don't. They're sitting in the
25	audience.

And here's a real killer. 1 "The 2 purpose of the CAP is to voice the concerns of 3 the affected community of Marines, their 4 families and to provide input for future 5 health studies." Why in the world is it then 6 that it's like pulling teeth to get 7 information from you people? ATSDR requested 8 the data or the access to databanks last 9 August verbally. 10 They wrote a letter in October of last 11 You know they never even got a response year. 12 to the letter? When did the Marine Corps 13 change their correspondence manual that much 14 since I've retired that they don't even 15 respond to somebody's letter? Hey, we 16 acknowledge receiving your letter. We're 17 working on it. 18 I wrote a letter on 10 January and 19 faxed it to the Commandant of the Marine Corps 20 and Dr. Frumkin at ATSDR. On 11 January I 21 found out because of a response I got back 22 from ATSDR -- I never got a response back from 23 the Marine Corps, but I did get one from 24 ATSDR, and I thanked them for that. But they 25 spelled out the actions that were taken after

1	the receipt of my letter.
2	On 11 January Headquarters Marine
3	Corps sent the reporting unit codes and MCC's
4	to the DMDC so that ATSDR could start doing
5	their feasibility studies. On 11 January,
6	Major General Flock wrote a letter to the
7	Defense Department's education activity giving
8	ATSDR direct liaison authority to look for the
9	school records for these kids. And then this
10	man's going to sit here and send me a note
11	saying that he was here to help?
12	That's all I got.
13	MR. BYRON: Well, this is Jeff Byron again
14	and just as a first sentence to Perri in that
15	e-mail from Lieutenant Colonel, he puts here's
16	a couple of paragraphs you can send the CAP
17	members regarding the future participation at
18	CAP meetings. It's kind of why don't we just
19	throw the dog a bone, okay? That's how I feel
20	about that.
21	MR. ENSMINGER: I want this included into
22	the minutes, the official record of this CAP.
23	MR. BYRON: I second that.
24	MR. STALLARD: Thank you, Jerry.
25	If you recall in the past we did

1 achieve and avoids. What we want to achieve, and what we want to avoid. There was a whole 2 3 lot of achievement things that we wanted to do 4 last time. I just want to recap that real 5 quickly for you, what was said previously in 6 terms of what the CAP wanted to achieve at our 7 meeting of 9/26. 8 Modes of notification, what is the 9 plan for notification? Has anything happened 10 on this? 11 MS. DYER: No. 12 MR. STALLARD: We can talk about that, all 13 right? So this is still a barrier. Status of 14 the water model, that was addressed, wasn't 15 it? 16 MS. DYER: Yes. 17 MR. STALLARD: Individual updates including 18 ATSDR. We did that. Debate, discuss the 19 databases. Provide CAP with better 20 understanding of what is needed for a credible 21 epi study. Has that been accomplished? Is 22 the CAP clear on what is required for a 23 credible epi study? 24 MR. MARTIN: No. 25 MR. STALLARD: Okay, no, so we need more

clarity on that.

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2 MS. DYER: Well, why do we need clarity? We 3 just need it. I mean, these are the 4 professionals. They know. They've done 5 studies before. They should be telling us. 6 We're not the scientists. Tell us what we 7 need. As far as notification, that's not 8 going to come from us. We need to be hearing 9 from the Marine Corps because it was put into 10 legislation that notification was supposed to 11 be done. So we need to hear from them what they're doing on notification, and if it's 12 13 started yet. 14 MR. STALLARD: Okay, but for feedback, 15 Frank, you hear that there's a little vaguery 16 around what we need for a credible epi study, 17 okay? 18 What's going on with housing and 19 school records? I think we're going to hear 20 an update on that, are we not, on what's going 21 on with housing and school records? 22 Here's one. Who is the DoD point of 23 contact who can authorize the requests, and 24 when can this authorization, and when can we 25 expect this authorization? That was 9/26/06.

1	MR. BYRON: Which request?
2	MR. STALLARD: I'm not sure. Who is the DoD
3	
4	DR. RENNIX: I think that was for the school
5	records.
6	MR. STALLARD: This is for the school
7	records?
8	MS. RUCKART: No, it's for all of them. It
9	was for all three entities.
10	MR. STALLARD: And those three issues are,
11	school records
12	MS. RUCKART: DMDC.
13	MR. STALLARD: DMDC which stands for what?
14	DR. BOVE: Defense Manpower Data Center.
15	MR. STALLARD: Defense Manpower Data Center.
16	And what's the third issue?
17	MS. RUCKART: NHRC, Naval Health Research
18	Center.
19	MR. ENSMINGER: Yeah, Dr. Rennix, what's up
20	with the Naval Health Research Center? We
21	haven't heard anything back.
22	MR. STALLARD: We're not going to get into
23	this because he's going to have an opportunity
24	we're just laying the groundwork for issues
25	we can address so that people who have

1 information are going to be able to do that 2 today. 3 That was what was stated in our 4 meeting of what you wanted to achieve. So I'm 5 going to ask a different question today. What 6 are the major barriers keeping the issue from 7 being advanced to the degree that the CAP 8 needs to see it advanced? I want like headlines because I just want to capture the 9 10 thought. You know what I'm saying? 11 MR. ENSMINGER: Cooperation from DoD 12 components, or lack of. 13 MR. STALLARD: Okay, what else? 14 MR. BYRON: And one other avenue for record 15 information was the Camp Lejeune family 16 housing records, too. 17 MR. STALLARD: Use the microphone. 18 MR. BYRON: The other avenue for records was 19 family housing, computerized records. 20 MR. STALLARD: Access to --21 MR. BYRON: Access the Camp Lejeune family 22 housing records. That was the other 23 informational system to get information. 24 MR. STALLARD: Anything else? 25 MS. DYER: Yeah, I'd like to add something.

1 I would like a letter, something in writing, 2 black and white, from DoD stating that they 3 are in full cooperation with this CAP to 4 release information that we need the time that 5 we need it. That they are in full cooperation 6 and agreement that if this CAP decides upon a 7 study that they will back it. I don't think 8 we've got that, have we? I don't think we've 9 gotten much of an acknowledgement from them 10 about anything so I'd like to start seeing 11 some of that. 12 MR. STALLARD: How is that different from 13 lack of cooperation from DoD? 14 The fact is that no matter what MS. DYER: 15 we do on this CAP, if we don't get cooperation 16 from DoD, we're not going to get anywhere. Ιf 17 they don't want a study, we're not going to 18 get one. It's not going to matter -- am I 19 right? I mean, it's not going to matter what 20 we do here if they're not going to, I just 21 feel like we need it in writing. It's not 22 like we can trust them. 23 MR. STALLARD: Okay, Terry, allow me, if you 24 will, I'm trying to make sure I capture this. 25 Lack of demonstrated commitment?

1 MS. DYER: Yeah, I want to see something --2 MR. STALLARD: Like a letter --3 MS. DYER: -- black and white. I want it 4 written. 5 MR. STALLARD: Lack of demonstration of 6 commitment. 7 MR. MARTIN: Other than what's on the Camp 8 Lejeune website, I want to know if the Marine 9 Corps has ever even acknowledged that they're 10 working in any way, shape or form other than 11 clean up of the toxic sites. 12 MR. STALLARD: Okay, so when you're talking 13 this right here, commitment from Marine Corps? 14 MR. MARTIN: I mean, everything refers back 15 to the ATSDR and the Community Assistance 16 Panel. It's like the Marine Corps is a third 17 party outside person conveying messages back 18 and forth between us and the ATSDR. 19 MR. STALLARD: So for instance, letters of support, what else, would demonstrate 20 21 commitment to you? 22 MR. MARTIN: That they want to resolve. 23 That they're working as hard and diligently as 24 we are for resolution to the matter. 25 MR. STALLARD: Active participation.

1	MR. MARTIN: Right.
2	MS. DYER: And if the CAP decides on the
3	study, that they will back it fully.
4	MR. BYRON: It wouldn't bother me if you had
5	the Commandant sign that either.
6	MR. STALLARD: Do you want to paraphrase
7	that as top leadership support? Does that
8	capture
9	MR. BYRON: I would prefer you put the
10	Commandant of the Marine Corps so that he
11	knows exactly what's going on here.
12	MS. DYER: If the organization that they
13	have gotten to do all this can't even get
14	information out of them.
15	MR. STALLARD: Anything else? These are the
16	barriers that we see in terms of impeding
17	progress.
18	MR. BYRON: Well, just as individuals on the
19	CAP, I mean, because we did bring this up a
20	minute ago, we did go over the key
21	methodological issues concerning designing a
22	scientific eval of the epidemiology study.
23	There's a handout. So I know a lot of time
24	has transpired since we last met, but what you
25	really need to do is go back over your notes

1	and re-read it and see if we can ask questions
2	and come back, but we did cover that.
3	DR. BOVE: And Dick's presentation, too, was
4	distributed so we can talk about that stuff
5	though, sure.
6	MR. STALLARD: Anything else?
7	(no response)
8	MR. STALLARD: All right. At this time
9	we're going to move in then. That worked out
10	well. Thank you for accumulating and save
11	time for Jerry and others and that was
12	appreciated.
13	MS. DYER: We're afraid of him.
14	MR. STALLARD: What's that?
15	MS. DYER: We're afraid of him.
16	MR. STALLARD: Jerry, before we move on to
17	the regular agenda, the next portion of the
18	agenda, is there anything else you have to add
19	to this, these barriers? That covers the
20	landscape?
21	MR. ENSMINGER: I would like to make a note
22	after that tirade I went through earlier that
23	I did appreciate seeing the action that was
24	taken after the receipt of my letter of 10
25	January by the Marine Corps. And I'm

1 wondering if we are seeing a new, with this 2 new Commandant, a proactive leadership now in 3 this situation because I'll tell you what, it 4 must have taken something for the Commandant 5 or the Assistant Commandant to get General 6 Flock to write that letter the next day. But 7 like I said I never even received an 8 acknowledgement that they received my letter. 9 MR. STALLARD: Thank you, Jerry. 10 MR. BYRON: This is Jeff Byron. It's a part 11 of dealing with the affected community is to 12 have some compassion and some understanding. 13 And to be honest if you take care of your own, 14 and we're all still Marines, you know, once a 15 Marine, always a Marine. I mean, that'd go a 16 long way to the CAP members and to the 17 affected community to show a little respect 18 and compassion. 19 MR. STALLARD: Thank you, Jeff. 20 RECAP OF SEPTEMBER 2006 MEETING AND UPDATE: 21 WATER MODELING 22 All right, Frank, we are now moving 23 into the recap of the September 2006 meeting 24 and an update on the water modeling. 25 MS. RUCKART: We're going start with

1 providing a recap and then an update on the 2 water modeling. And then we're going to 3 demonstrate for you a website. It's just in 4 the testing stages right now since it's just 5 provided for you all to show you what it will 6 look like when things are up and running. So 7 you can go to the website and put in the years 8 that you lived at Camp Lejeune and find out 9 about the levels of contamination. As far as the water modeling that was 10 11 discussed at the last meeting, Morris let 12 everybody know that for Hadnot Point he's going to concentrate on the three sites that 13 14 are driving most of the contamination. That's 15 Area 21, which is primarily contaminated with 16 TCE, Building 25 and Site 88. The 17 contaminants there are PCE and some BTEX, and 18 the industrial area, which the contaminants of 19 concern are BTEX. 20 And he's going to develop a calibrated 21 flow model for the entire area as well as 22 conduct flow and transport simulations for 23 each of the sites. And he believes that 24 focusing on these three sites will help to

reduce some of the uncertainty.

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1 As far as Tarawa Terrace, he displayed 2 final draft maps showing well locations based 3 on different sources of information, copies of 4 the maps were subsequently provided to the CAP 5 members after the meeting. And it was 6 estimated that the date the treated water in 7 Tarawa Terrace reached five parts per billion 8 in November of 1957. 9 DR. BOVE: So that all was discussed at the 10 last meeting. So let me go over what's 11 happening now and Jason and Rene, if I screw 12 up, chime in. Morris couldn't be here today. He had a family affair they had to go to. 13 14 What I've just passed around was a 15 presentation that Morris gave earlier this 16 month at USGS so if you have good eyesight, 17 you can read it. But I can just tell you the 18 highlights of it. Basically, he's showing how 19 they did the water modeling starting with the 20 groundwater, figuring out the fate and 21 transport of the contaminants through the groundwater to the wells and then from the 22 23 wells to the distribution system, the 24 distribution system to your tap. And the 25 simulations that were required, first

1	developing a calibrated model and then doing
2	simulations to look at variability and
3	uncertainty issues.
4	MR. ENSMINGER: May I interrupt you a
5	second?
6	DR. BOVE: Sure.
7	MR. ENSMINGER: For the people in the
8	audience this is a chart that is on the wall
9	back of you.
10	DR. BOVE: Thank you, exactly right. Yeah,
11	the poster is up there, too.
12	And what, if you go to the poster you
13	probably can see it better but the maximum
14	perchloroethylene or tetrachloroethylene at
15	the wells are up there. At TT-26, which is
16	the one with the highest contamination, the
17	maximum estimated was 851 parts per billion
18	with an average of 414 parts per billion.
19	And at the water treatment plant which
20	would be at your tap, the maximum was
21	estimated at something like 183 parts per
22	billion with an average of 70 over the entire
23	study period. It exceeded five parts per
24	billion as Perri just said in 1957 in
25	November. Now we can go into more details

1 about that if necessary. I have some of the 2 slides that Morris used in that presentation 3 if we want to get into more depth. 4 Just to mention where we are with the 5 report on Tarawa Terrace though, eleven 6 chapters, and from your handout in the update 7 you can, we mentioned that six of them have 8 been completed and cleared by ATSDR. The rest 9 are in preparation. The key one is the 10 summary of all of the chapters. That's the 11 one that most people will read. That's the 12 one that needs to be in language that people 13 on the street will understand, and that's the 14 one that Morris is working on right now. 15 But he has to wait to some extent 'til 16 the rest of the other chapters are at least in 17 pretty close to final form, and then he can 18 summarize it. And that way we're going to 19 have a lot of scrutiny through the agency and 20 make sure that it's understandable. It's 21 written in a language that people can 22 understand and get something out of. So 23 that's where that is. 24 Actually, we could start with the, 25 show the web application unless there's any

more questions about Tarawa Terrace, we can show the --

MR. ENSMINGER: By this you're looking at this thing being published in June?

DR. BOVE: That's the hope, yeah. And I think that there's a good chance, a very good chance that that will be met. There were some difficulties with the simulation. It's very difficult and complex. We're looking at thousands of simulations with a lot of parameters, but I think everything has gelled, if you will, and we're going to be able to make that June date for the published reports. That does it for Tarawa Terrace.

That doesn't mean that we don't, we'll be getting the data to start our analysis of the case control study before June, but this is when the published data will actually be out. And then once these are published, the web application will be available for everyone to look at, at least for Tarawa Terrace. Now, Hadnot Point's another issue, and we'll talk about that. MR. ENSMINGER: I mean, there was some

question about supporting documents for the

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1	water model, Tarawa Terrace?
2	DR. BOVE: Right, that we raised at the last
3	CAP meeting.
4	MR. ENSMINGER: And whether or not you were
5	going to be or propose these things to support
6	the report on your website. Where are we at
7	with that?
8	DR. BOVE: Deborah, do you want to handle
9	that one for us?
10	MR. STALLARD: Please come up and speak into
11	the microphone, and if you would, introduce
12	yourself.
13	MS. TRESS: Good morning, thank you. My
14	understanding is that
15	MR. STALLARD: And you are
16	MS. TRESS: Deborah Tress with the General
17	Counsel's office with the Centers for Disease
18	Control and ATSDR. And my understanding is
19	that it's the intention of ATSDR to release
20	underlying documentation for the report.
21	Many of those documents did come from
22	the U.S. Marine Corps so we're working with
23	them to identify the documents that may be
24	released and which ones are subject to
25	withholding under applicable Freedom of

1 Information Act exemptions. We've gone 2 through the documents. They've gone through 3 the documents, and we'll continue to work with 4 them to try to maximize the records that are 5 available. But since the documents did come 6 from them, it's sort of their legal 7 prerogative to determine what documents, some 8 of them must be withheld under the Freedom of 9 Information Act, some of them may be withheld, 10 and we're trying to work with them to maximize 11 the documents that are made available. 12 MS. DYER: Why, what in the world would be 13 in those records that would prevent the Marine 14 Corps if they wanted to bring truth to this, 15 what in the world would prevent them from not 16 giving us every single one of those documents? 17 It's not like they're going to be publicized 18 in the newspapers. I mean, who are they to --19 MR. ENSMINGER: Who cares if they might be -20 21 MS. DYER: Well, even if they are, who's to 22 say that there's not documents that we --23 MR. ENSMINGER: There's such a thing as 24 redaction. 25 MS. TRESS: Correct.

1 MR. ENSMINGER: I mean, the Freedom of 2 Information Act, I mean people's names and 3 people's addresses can be redacted, but if 4 that thing supports that water modeling, I'll 5 tell you what, if you post a water modeling 6 report, if this agency posts a water modeling 7 report without all the supporting 8 documentation, you are going to hear one 9 scream from this guy at least. 10 MS. TRESS: I think that's a good point, and 11 I haven't looked at the actual documents. 12 We're still in that process, and I understand 13 that redaction is being used as appropriate in 14 the documents. But I hear you, and I 15 understand your concerns and the need to have 16 as much documentation as possible to support 17 the results. And we'll continue to work on 18 that. 19 MR. BYRON: So there's a Marine Corps 20 representative here today in the audience. 21 Are we going to get this or aren't we? What 22 can you say at this point? 23 MAJOR HALE: I know that Deborah -- well, 24 let me introduce myself. I'm Major Doyle 25 Hale, Camp Lejeune, North Carolina. I'm here

1	because Kelly and Lt. Colonel Tencate were not
2	able to be here.
3	MR. ENSMINGER: What's your job, Major?
4	MAJOR HALE: I'm an environmental attorney
5	at the Eastern Area
6	MR. ENSMINGER: Detailed?
7	MAJOR HALE: Yes, sir.
8	And with me is Mr. Dave Wunder who's
9	also from ^. The documents I think, Deborah's
10	talked to Lt. Colonel Tencate, and we are
11	working to redact as you said. In some cases
12	there are, you know, we have to follow the
13	law. If it's Privacy Act stuff, we can't
14	release certain things.
15	MR. ENSMINGER: Names, addresses, phone
16	numbers.
17	MAJOR HALE: Right. If it's a security
18	exemption, something that says this is where
19	this is, they make those exemptions in other
20	words. As she said, we can't release them.
21	When we can release them, we will release
22	them.
23	MS. DYER: But is there any checks and
24	balances in this whole thing where we know
25	that the records that are there are the ones

that we're going to be getting, that things aren't going to be pulled out? I'm sorry, there's a trust issue here. Wonder why?

MR. BYRON: Terry's concern, I think, is whoever goes out and handles and gleans through the documentation to say what was relevant or not. Well, they are hired by the Marine Corps and the DoD. There's a problem with that, okay? There's no representation. And I know that we're not, we can't have access to Privacy information. We don't want access to the Privacy information. We just want the facts, but --

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 MS. DYER:
 But there's got to be some kind

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 of -

16MR. BYRON: -- that's where the concern is17at.

18 MS. DYER: -- checks and balances here so 19 that we know we're getting what we really 20 need.

21MAJOR HALE: Let me make one other point.22The documents that were used for the water23modeling for ATSDR, as I understand it, they24had total access to all of those records. So25you're talking about for the water model. So

1 you're talking about release ability issues. 2 As to those documents going out like you just 3 said, they could be put out on the internet 4 for everyone. So we're talking about release 5 issues under the Privacy Act, under exemptions 6 under FOIA, but all the documents were made 7 available under that with everything by ATSDR 8 for the water model just so everybody's clear 9 on that. 10 MR. STALLARD: Thank you, Major. 11 Anything else? 12 MS. TRESS: That's the universe of documents that we're talking about, and I believe that 13 14 there will be an accompanying index with those documents to indicate where redactions and 15 16 withholdings have occurred so you will see 17 what was the full universe of the documents, 18 and what's the disposition of each of those 19 documents. And subsequently, if there's a 20 concern of how certain documents were handled, 21 Freedom of Information Acts may be made to the 22 Marine Corps, and there's a process involved 23 in that in appealing and withholding of 24 certain documents. 25 DR. FISHER: Jeff Fisher, I have a question

1 related to the modeling. This is for one 2 compound as you mentioned, Frank, but in this, 3 our last meeting, we talked about other 4 compounds: trichloroethylene, BTEX, which is 5 benzene toluene, ethylbenzene, xylene, 1-2 6 dichloroethylene and vinyl chloride. And 7 there's some indication, and it's in the 8 minutes that modeling is anticipated for those 9 compounds so if you could comment on that. 10 DR. BOVE: Yeah, the simulations are also 11 being performed at Tarawa Terrace for 12 trichloroethylene, trans-1-2 dichloroethylene and vinyl chloride. And those contaminants 13 14 will also be on the demonstration, not today. 15 All you'll see today is just a 16 perchloroethylene for Tarawa Terrace, but what 17 we are planning to do is when we release it in 18 June, the -- whatever we're calling it -- the 19 web, the application, thank you. But when 20 that application is available on the web site, 21 you will put your address in, the dates you 22 were there, and you'll see PCE, TCE, 1-2-23 trans-DCE, vinyl chloride. All of that for 24 Tarawa Terrace. 25 And now the BTEX is a Hadnot Point

1	issue, and we'll talk about that in a minute.
2	But why don't we show the demonstration. Want
3	to do that, Chris?
4	MR. STALLARD: I'd like to ask you a
5	question before we move on because you were
6	summarizing the water modeling. And you said
7	that the data shows that there was five points
8	
9	DR. BOVE: Greater, not less, it was less
10	than five parts per billion before November.
11	MR. STALLARD: Yes, so greater than five
12	parts per billion, right?
13	DR. BOVE: Yes.
14	MR. STALLARD: So to the layman what does
15	that mean?
16	DR. BOVE: Okay, five parts per billion was
17	the MCL that was established for
18	perchloroethylene in 1991, was it, or `2.
19	(Whereupon, teleconference interruption
20	occurred.)
21	MR. STALLARD: Hey, Tom, I think you have to
22	speak a word or something. Tom, are you still
23	with us?
24	MR. TOWNSEND (by Telephone): I'm here.
25	DR. BOVE: Yeah, the MCL, Maximum

1	Contaminant Level, which is the standard set
2	by EPA which water companies are supposed to
3	stay under for that contaminant.
4	MR. BYRON: But 1957 is historically when it
5	jumped over that point.
6	DR. BOVE: Based on our modeling estimates -
7	- and, in fact, if you type in Perri, type
8	in November 1957. I just want to make sure
9	that the right data finally got on this
10	application.
11	MS. RUCKART: I ^.
12	DR. BOVE: It should say 5.4. Now, it'll
13	give you a lot of numbers after a decimal
14	point, but keep in mind that they've been
15	modeling, and there's a lot of uncertainty so
16	the point four is maybe not as important as
17	the five is here. Can we get it up?
18	MS. RUCKART: What dates did you want?
19	DR. BOVE: Just put in November 1957 just
20	for a second. I want to see if the right
21	number comes up, and then Jerry wants to put a
22	number in there, too, and we'll just show you.
23	I can't read it. What does it say?
24	MS. RUCKART: It says 5.41.
25	DR. BOVE: Yeah, so this is right.

1 So what date do you want to put in 2 there, Jerry? This is for all of Tarawa 3 Terrace. 4 MR. ENSMINGER: Put October of '74 in there. 5 MS. RUCKART: You could put a range so we 6 could look at October of '74, let's say you lived there October 1974 through February '75, 7 8 let's say. 9 MS. DYER: I'd like to get some of Viet Nam 10 in there. 11 DR. BOVE: Well, we can do all that. The 12 other thing is I've forgotten exactly what 13 Morris said, but I think there's going to be a 14 histogram and a line graph, too. 15 MS. RUCKART: What he said was if there's 16 just a few months like we have here, he would 17 do a bar chart, but if you're looking at a 18 longer period of time, then you'll see a line 19 graph so you could see how the contamination 20 has fluctuated, just how it looks over time. 21 MR. STALLARD: It's just difficult to read. 22 DR. BOVE: Yeah, I don't know what to do 23 about that. It won't be as difficult in the -24 25 MS. RUCKART: So here we have, you can put

in the start date and the end date that you're interested in. For right now the application is just for Tarawa Terrace. You don't have to enter the address because we know we're just looking at Tarawa Terrace. But when we have more of this data available, you would also go to enter the housing area or the street address that you're interested in. So we've put in the dates here. We put in October 01, 1974 to February 01, 1975. We press get data, and then on the result it tells you for every month what the level is, and then -- and I'll read you those levels in

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a second -- and then as we're saying when this is fully functional, it will also appear as a graph, a bar chart if there's not that many months of data or a line diagram if there is a longer period that we're covering.

19So here it shows October 1st, 1974, the20level of PCE in the finished water delivered21from the water treatment plant is 57.722micrograms per liter. In November, it's 58.3;23in December, 58.92; January '75, 61; February24'75, 61.24. So it's not -- It's pretty25similar during that time period, but if we

1	extend the time period out you'll see the
2	fluctuation.
3	MR. STALLARD: All right, so just a question
4	from the people like me who are not
5	particularly strong in math. So is that ten
6	times the five parts per billion?
7	DR. BOVE: Yes.
8	MR. MARTIN: And I also wanted to clarify
9	that, Frank. You're saying by June of this
10	year, 2007, all the rest of these other
11	chemicals that were in this water during this
12	period from 1957 to '85 will also be
13	recognized on this website? Is that correct?
14	DR. BOVE: Yeah, all the degradation
15	products are TCE, 1-trans, 1-2-
16	dichloroethylene and vinyl chloride will be on
17	this chart, too, from, I think, '51. Is that
18	when
19	MS. RUCKART: He starts at '52.
20	DR. BOVE: So he started at '52?
21	MS. RUCKART: Yes, January 1 st , '52.
22	DR. BOVE: To what, '87?
23	MS. RUCKART: February 28 th , 1987.
24	DR. BOVE: `Eighty-seven?
25	MS. RUCKART: And it says that on here it

1	will let you know the years that are
2	available.
3	MR. STALLARD: One speaker at a time,
4	please. One speaker so we can capture all
5	this.
6	Go ahead, Frank.
7	DR. BOVE: That's all right.
8	MR. MARTIN: And then just to re-clarify
9	that these did reach unacceptable limits in
10	November of 1957 and stayed consistently
11	through 1985, 28 years.
12	DR. BOVE: Right, but the standard wasn't
13	set until '91. So at that time there was no
14	maximum contaminant limit standards for
15	perchloroethylene.
16	MR. MARTIN: And the exposure which we now
17	know which is definitely unhealthy lasted for
18	approximately 30 years to Tarawa Terrace.
19	DR. BOVE: It was above the MCL. The
20	question of what level is unhealthy is another
21	issue, and
22	MR. MARTIN: You're saying five parts per
23	billion.
24	MS. MCCALL: Would you drink it at one level
25	over?

1	DR. BOVE: That's the go ahead. Do you
2	want to
3	MS. McCALL: Would you?
4	DR. BOVE: Me, no, I wouldn't drink it nor
5	should you be drinking it.
6	MR. MARTIN: And you're an eight year old
7	child that gets up in the morning and eats
8	your breakfast prepared in the water, that
9	took a shower, that went to the Tarawa Terrace
10	Elementary School and drank water from their
11	water fountain, then got out of school and
12	went home and played in the creeks and fished
13	in the river, and that evening took the crabs
14	and fish home and cooked them and ate them.
15	You were always playing little Marine, running
16	through the creeks and the water and
17	constantly in the water, riding bicycles all
18	over Tarawa Terrace having the base Provost
19	Marshall go crazy. That's pretty unacceptable
20	for since six years I lived there every day.
21	Would you agree with that, Dr. Fisher?
22	DR. FISHER: Well, it's above what we think
23	is a safe level now, so it's unacceptable in
24	that regard.
25	MS. McCALL: Unacceptable.

1 MR. MARTIN: Could it be, could it 2 contribute to the cause of any type of 3 illnesses that would have caused renal failure 4 in my mother for her to die at 42, and 5 cervical cancer for my youngest sister that 6 died at 31? 7 DR. FISHER: Now you're putting me on the 8 spot. 9 MR. MARTIN: Could it have contributed to 10 that? 11 MS. DYER: Sudden death heart attack for my 12 dad at 45? I mean, come on, let's --DR. FISHER: Well, chlorinated solvents in 13 14 general have lots of end points that have been 15 looked at, human health end points, from 16 animal studies, human studies, from acute 17 exposure, chronic exposure, and reproductive, 18 broadly called reproductive effects, are 19 surfacing in the last decade in studies in 20 epidemiology world and in other animal 21 studies. So I don't think we as toxicologists 22 fully understand all the implications of the 23 exposures you're talking about. Are they 24 possible? Yes, if that's the kind of answer 25 you want.

1 MR. MARTIN: Well, I'm never going to find a 2 doctor in this country that will look at my 3 brother and say your cancer was caused by the 4 drinking water at Tarawa Terrace. But we have 5 levels that are five to 50 times higher than 6 what's acceptable now? I understand that the 7 science wasn't there in the 1950s, but I'm 8 saying that the Marine Corps knew about it in 9 1980, and they waited until 19 -- what, '97, 10 for release of the information? They waited 11 five years to shut off these wells. And from 12 what I understand, there's information they 13 were turned on sporadically off and on for 14 that five year period anyway after they knew 15 of the contamination. MR. BYRON: After the five year period. 16 17 MR. MARTIN: After the five year period. So 18 this is what I've been searching for for the 19 last 28 years are some answers of what in the 20 world would have done that to my mother. Why 21 was she one of ten people in this nation on 22 home dialysis, and why at age 12 and 14 did I 23 watch artificial kidneys blow up and blood 24 drip down the wall until thank God, finally 25 somebody from the military stepped in and said

send her to Portsmouth, Virginia on an emergency transfer. And do you know what she was upset about? My father being called back from Cuba, and it affecting his career. So, yeah, there's a lot of anger here. I'm very angry, and I want some answers. And to me, I'm not a scientist, but 800 parts per billion of poison going through my drinking water sounds awful damn unhealthy to me. MR. BYRON: I want to say something about, you know, you mentioned the medical field not saying what caused your brother's illnesses. I kind of concur with that because the medical field is really concerned with diagnosis and treatment. They're not so much concerned with

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what caused it because really, once you have the disease, they treat it the same way as what Frank has told me whether or not what caused it. It doesn't matter at that point.

So I mean, I'd like to know whether or not we have toxicologists working with the medical field to tell us what is causation of these illnesses. None of these birth defects that my youngest daughter has is in my family at all or my wife's family. Something caused

it, and when you put the medical records of my
oldest daughter together with my youngest
daughter's, the fact that it was a chance
happening, I kind of doubt that.
MR. STALLARD: Thank you, Jeff.
DR. CLAPP: This is Dick. I'm sitting next
to Jeff so I want to share some of the hot
seat with him.
MR. BYRON: I didn't mean that
intentionally.
DR. CLAPP: We understand that. We're here
as your friends and as your advisors. We're
not here to fight with you. You obviously
have a legitimate beef, everyone here,
everyone who's spoken, has a legitimate beef
and a legitimate concern. We fully understand
that.
I think the way you phrased it, Dave,
in your question is could this exposure have
contributed. There's no question in my mind -
- I'll speak as an individual epidemiologist -
- no question in my mind it could have
contributed. Whether it caused it or not is
not actually what Jeff and I are set up to
answer. That's an individual medical

conclusion, and neither of us are doctors, and neither of us have the whole medical history, you do probably, or certainly somewhere there are some records that have it.

But we're here to advise about these studies, and from the point of view of an epidemiologist looking at the literature, all the literature supports many of the things. It certainly supports childhood leukemia, kidney disease, and a lot of things that you're talking about. So that's as far as we can go, but we're here on that behalf and to try to help the process.

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14 I think what we have difficulty DR. BOVE: 15 determining is at what level, what level. Is 16 it five parts per billion, six, ten? That's 17 where we have a lot of difficulty. And what 18 we do is risk assessment, and there are 19 various risk assessments out there with a lot 20 of different kinds of assumptions made and a 21 lot of different uncertainties involved in 22 trying to figure out where the ten to the 23 minus six cancer risk is or something of that 24 sort. 25 But oftentimes those risk estimates

1	are not, well, it's rare that they are
2	estimating the risk to a childhood cancer.
3	And it's even rarer to see any risk
4	assessments that would try to estimate on what
5	level a birth defect would occur. And so
6	that's where we're at science-wise. I mean,
7	we just don't know the answers to those
8	questions as to what levels.
9	In my own work trying to figure out
10	what people were exposed to in New Jersey in
11	the drinking water, there's a lot of
12	uncertainty there. So given that I couldn't
13	say for sure whether it was five parts per
14	billion, ten, 15 parts per billion when I
15	started to see associations with particular
16	birth defects. And that's because the data
17	wasn't good enough for me to make that call.
18	All I could say was looks like from my
19	study, at least my study, that PCE or TCE was
20	associated with a particular outcome, but the
21	data wasn't good enough for me to say at what
22	point that happened, at what point it wouldn't
23	happen. And that's true of a lot of
24	epidemiology unfortunately. It's a crude
25	tool. I think Dave Ozanoff once said, you

1	know, we pick up, if there's a catastrophe, we
2	can pick it up, but otherwise I'm
3	butchering that.
4	MS. DYER: And we understand to the degree
5	that we can, but I think as novices or
6	whatever you want to call us, country
7	bumpkins, whatever, some of them have called
8	us.
9	MR. BYRON: Not to my face.
10	MS. DYER: If it was one hundredth of a
11	percent I bet you wouldn't let your child
12	drink it. So I mean, that's what we see. So
13	it would matter. If it's 2000, if it's one
14	percent, you know, we don't see any of the
15	stuff you're seeing or things that you're
16	saying. That's what we see, and you wouldn't
17	have let your child drink it.
18	MR. STALLARD: Denita has been waiting to
19	speak, please.
20	MS. McCALL: One other question, this
21	application is live online right now?
22	MS. RUCKART: No, this is on our test
23	server. We just provided this here for you
24	today so you can get an idea of what will be
25	available and it's still under development.

1	MS. McCALL: In June?
2	MS. RUCKART: June.
3	MS. MCCALL: And so this will come before
4	notification of the general public regarding
5	the water contamination? Because I don't see
6	any reason to have this up in June if nobody
7	knows it's there, and why it's there. It's
8	just useless online if the general public
9	doesn't know about it. I mean, I think this
10	is the cart before the horse.
11	MS. DYER: That's a wonderful, that's an
12	excellent idea because the Marine Corps could
13	actually incorporate this into their
14	notification and let it be a part of it.
15	DR. BOVE: I mean, we would do, I mean, what
16	we usually do is we do our usual best work
17	that we do for any report, I would assume we
18	would do for this as well as for the reports
19	themselves. So that's how ATSDR would do. We
20	don't have access to people's contact
21	information now to do a notification. That
22	again is something we would expect other
23	entities to do.
24	MR. STALLARD: Let me see if I captured
25	your, the issue you've been raising is that

1 accessibility of the ATSDR website and is it 2 linked to any type of notification? 3 MS. McCALL: Well, yes, and I think that it 4 should be because I think this is an 5 excellent, well, we got this idea for a couple 6 of meetings ago. And I see it has 7 materialized. But it's not going to do 8 anybody any good if nobody knows that it's 9 there, and they don't know that they were 10 exposed to contaminated water. And you know, 11 you've just wasted some fabulous whatever it's 12 called -- what's that called -- computer 13 programming technology. It's just sitting 14 there and nobody but me and Terry and a couple 15 of other hundred people can go and use and go, 16 wow, yeah, there it is. 17 MR. STALLARD: So, right --18 DR. BOVE: Well, for one thing you could 19 certainly publicize it through your avenues, 20 and we will do what we do when we -- I'm not 21 the person who does that. The media people do 22 that, our press people, but they would be the 23 usual thing we do for reports so that was 24 another way to get it out. Now, if there are 25 other ideas here about how to get it out, then

1 MS. DYER: Well, I think it should be, I 2 3 really do think it should be part of dealing 4 with the Marine Corps' notification. When 5 they do their major media blitz, it needs to be part of it. Go to this website. This is 6 7 the name. Put in your street address and the 8 years you were there so that you know how much 9 you were contaminated. 10 DR. BOVE: They're in the audience, so they 11 hear. 12 MS. McCALL: See, this is an invaluable tool to everybody. This is what everybody needs, 13 14 but everybody doesn't know it's there, and 15 that's where we have the ATSDR doing their 16 job, and what we ask them to do. And the 17 Marine Corps on the other hand is still absent. 18 19 MR. STALLARD: So the action item out of 20 this topic is how to make this available 21 linked with some process of notification. And 22 the responsible party for that should, could, 23 might be, who? 24 MS. DYER: The Marine Corps. 25 MS. McCALL: The Department of Defense.

1	MS. DYER: We need an answer
2	MR. STALLARD: I mean, I don't know so
3	somebody has to tell me.
4	MS. McCALL: I don't have information to
5	contact people. They do. They're the ones
6	that hold the whole bag of tricks here. I
7	can't notify everybody unless
8	MR. BYRON: You might put down CDC also
9	because, I mean, if you had an outbreak of a
10	pandemic, wouldn't the CDC be involved in
11	notifying people to take action and protect
12	yourself?
13	MR. STALLARD: I don't know. That's a
14	question for Frank to respond to. I mean, I
15	don't know
16	DR. BOVE: I would have to get back to you
17	when I talk to our media people to see what
18	they would do, if we could do something
19	besides what we normally do.
20	MR. STALLARD: Okay.
21	MR. BYRON: This is Jeff Byron again. I
22	know we spoke about, you know we requested the
23	DoD be responsible for contacting Marine Corps
24	veteran organizations. And I know Dave has a
25	list, and I also have a list, and I want to

1	know where they stand on that. Are you
2	willing, once this report is out, and I think
3	it's pretty clear that toxic water was at our
4	homes.
5	When is it that you're going to take
6	action, and as I requested earlier, notify
7	Marine Corps website organizations, Marine
8	Corps publications and make the request from
9	the DoD-slash-Marine Corps versus a
10	disgruntled Marine who they may not want to
11	listen to just because they feel their loyalty
12	is greater to the Marine Corps than a fellow
13	Marine that they don't know.
14	If it comes from the DoD and from the
15	Marine Corps from the Commandant himself, the
16	request that they put a notification on their
17	website, and that's going to reach people.
18	And I don't see that as some kind of request
19	that can't be met without a real quick answer
20	to be honest with you.
21	MR. STALLARD: Are we in agreement that this
22	is a valuable tool that's just been
23	demonstrated?
24	MS. McCALL: Oh, yes, absolutely.
25	MR. STALLARD: So, Frank, I took it from you

1 as an action item that you'll meet with the 2 media folks and probably the Office of General 3 Counsel to talk about what --4 DR. BOVE: What we can do. 5 MR. STALLARD: -- opportunities. 6 MS. DYER: Since we do have, since Kelly 7 couldn't be here, and she did send other 8 people to represent her, can we get an answer 9 from them as to what the Marine Corps is doing 10 on notification: what they've talked about, 11 what their plans are, what the time limit is, 12 and if they would be willing to put this along with the notification through the major media 13 blitz, if they would include this as a part of 14 15 it. 16 MR. STALLARD: I'll tell you what, all we 17 can do is ask. 18 So the question is is there anyone in 19 the audience representing the Marine Corps who 20 can address Ms. Terry's question about what's 21 the intention of notification? UNIDENTIFIED SPEAKER: I can't address it 22 23 because I don't have the information, but I'll 24 certainly take it back to Kelly. 25 MS. McCALL: You all haven't had any

1	meetings on notification?
2	UNIDENTIFIED SPEAKER: What, me
3	MS. DYER: There was a law passed. I mean,
4	it was passed. It's put into legislation.
5	UNIDENTIFIED SPEAKER: Kelly may have done
6	that. I don't know.
7	MR. BYRON: Can you get that answer for us
8	by the end of the day?
9	UNIDENTIFIED SPEAKER: I'll certainly try.
10	MR. BYRON: Because this has come up like
11	the last three meetings.
12	UNIDENTIFIED SPEAKER: I can't promise that
13	I'll get it by the end of the day, but I'll
14	certainly try because they're not available
15	which is why I'm here, but I'll pass that on
16	to take it as an action item.
17	MR. STALLARD: Tom? Yes?
18	MR. TOWNSEND (by Telephone): You know there
19	was a, a long time ago in about 2001, I
20	badgered the Marine Corps about doing this,
21	and they had a historical only they had
22	a mass media, television, radio and whatever
23	was available that went I thought several
24	thousand places, and on the newspaper ones
25	virtually every newspaper in the United States

1 had a discussion about the contamination 2 problem. However, I told about 50 newspapers 3 and none of them would run that material and 4 none of them would broadcast the materials 5 because it was dated news. They just wouldn't 6 So end of comment. do. 7 MR. STALLARD: All right. MR. MARTIN: Chris, this is Dave Martin 8 9 again. I had mentioned we went to D.C. in 10 September 2005, and we met with the JAG office 11 at that point. And this is just a suggestion 12 to the representatives of the Marine Corps 13 whoever that may be now or in the future, and 14 I don't know. I can't, Jerry, you explained 15 some things and some information that you 16 tried to get from the Marine Corps. 17 This is obviously not the same Marine 18 Corps that I grew up under, a gunnery 19 sergeant, active-duty Marine because I just 20 don't believe it really. But when my father 21 was active duty if the Commandant said you get 22 up at three o'clock in the morning and turn 23 your water on and water your lawn, you were up 24 at three o'clock in the morning. I was born 25 and raised a Catholic, and what he said was

1	probably equal to what the Pope said.
2	So that's where I was coming from
3	earlier. Without some type of
4	acknowledgement, without some type of letter
5	from Headquarters Marine Corps, Washington,
6	D.C., that they are cooperating with this task
7	force, with this to get this information out
8	to present, former military personnel,
9	civilians, navy, everybody that was associated
10	with that base, we're not going to make any
11	headway. I posted information on several,
12	several websites, and I have had responses.
13	I did bring some information today
14	because we were asked in the last meeting,
15	four different Marine Corps websites. I have
16	18 pages of Marine Corps, this is one website,
17	Viet Nam veterans in the Marine Corps and the
18	Navy, there's 18 pages, and several of them
19	have their e-mail addresses listed. These are
20	from all divisions throughout the Marine
21	Corps, and these are just guys that served in
22	Viet Nam.
23	I also have four pages, the top 40
24	Marine Corps, United States Marine Corps
25	websites that are on the internet. And I have

1 posted and I have received several responses, 2 but Dave Martin talking to people about water 3 contamination at Camp Lejeune to a society, a 4 military society, that has nothing but 5 camaraderie-ship and brotherhood and the true 6 meaning of semper fi that I grew up with, that 7 doesn't make a whole lot of headway. 8 If the Commandant of the Marine Corps 9 will issue a letter that could be published, 10 one that could be posted on websites, 11 something I could attach to my e-mails to 12 these guys, that's going to get their 13 attention. Right now I'm just a kid that grew up that really is kind of down on the Marine 14 15 Corps which I've never been, but that's how it 16 comes across. MR. ENSMINGER: Well, and I have a comment 17 18 here. I think if you pulled all this back and 19 looked at it, it's, I know, it's not the people wearing the uniform. It's the people 20 21 wearing the suits that made these decisions. 22 People wearing the uniforms are told by the 23 people in the suits what they're going to do 24 and what they won't do, and that's what we're 25 facing right now.

1 MR. STALLARD: Let me, just a moment now. 2 We're going to hear from Dr. Fisher, and then 3 I need to check in with Perri and Frank in 4 terms of where we are with the update on the 5 water modeling. 6 Go ahead. 7 DR. FISHER: I have a question again of 8 Frank, and it's about the water modeling. 9 When we started coming here, I know there were some data on wells with certain levels of 10 11 contamination but the questions were still 12 about that doesn't translate to what your 13 exposure was or how much water you drank or 14 your household exposure essentially. But now 15 we have water models predicting some 16 concentration information that looks like can 17 be used in exposure assessments. So if this 18 goes out on the web, and it shows predicted 19 levels above MCLs, will ATSDR have some 20 interpretation of this other than it's above 21 the MCL? Will there be a risk communication, 22 a public health communication about how to 23 interpret this information? DR. BOVE: Well, yes, short answer. And we 24 25 will explain what the MCL is. Somehow we'll

1 have to explain how it was derived although 2 it's not always clear how these are derived. 3 Sometimes they're just what can be defensible 4 in court and what are technically feasible for 5 a water company to achieve as well as using a 6 mouse model to ^ risk. And in the case of PCE 7 I think that's the case. So we'll have that. 8 We have already up on the website what we know 9 about TCE and PCE, and we don't have up there 10 what we know about trans-1-2 and VC, vinyl 11 chloride, and that will have to go up as well. 12 So we have some work to do to do that, and 13 I'll be working with our communications people 14 again to do that. And our Division of 15 Toxicology hopefully will chime in, too, and 16 help us with the risk communication 17 information. So we'll do that. We have to do 18 that. You're right. 19 MR. ENSMINGER: Dr. Bove, there's one more 20 issue on Tarawa Terrace that I'd like to bring 21 up, and it's not just Tarawa Terrace either. 22 It's anybody that used any of the main 23 services on Camp Lejeune. 24 MR. STALLARD: Let me ask you though, does 25 this have to do with the water modeling?

1 MR. ENSMINGER: Yes. 2 MR. STALLARD: It does? 3 MR. ENSMINGER: Yes. There needs to be a 4 note made when you put this water modeling up 5 there that this does not include exposures 6 when they were over at mainside using the main 7 services over there. 8 DR. BOVE: Right, this will be, we have to 9 clearly state in there that this is at the 10 residence. These estimates are at the, at 11 that address that they're putting in, and that 12 will be a residence, residential address. 13 When we get to Hadnot Point, I think, 14 well, I'm not sure what we're going to do at Hadnot Point because we're still working on 15 16 Hadnot Point, but it would probably make sense 17 for us if we do make estimates, and we'll 18 probably be estimating as well what's happened 19 at the buildings, too, at the industries. But 20 we really haven't talked about that yet, so I 21 can't speak for Hadnot Point. So let me just 22 say for Tarawa Terrace they're residential 23 addresses, and we'll make that clear on our 24 web application. 25 MR. STALLARD: Just as a point of process,

1 we had scheduled a break at 10:45. I see 2 people getting up quite a bit and moving 3 around, and we still have to get to the update 4 5 DR. BOVE: Can I just do quickly Hadnot 6 Point? 7 MR. STALLARD: Yes, and then we'll take a 8 break. 9 DR. BOVE: Can y'all hold on for a second? 10 Well, actually, it's all in the handout, and 11 basically, just trying to give you some sense of, Hadnot Point's going to be much more 12 13 difficult to do than Tarawa Terrace. That's 14 the nature of the beast. It's a much larger 15 There are a whole lot more wells and area. 16 more sources of contamination. So just those 17 three items alone will make this more complex 18 and difficult. And we have different kinds of 19 contaminants now. Now we have BTEX as well as 20 perchloroethylene, trichloroethylene, 1-2-21 trans, vinyl chloride. And so we have 22 degradation products to deal with. We have 23 BTEX chemicals to deal -- meaning benzene, 24 toluene, ethylbenzene and xylene, we have, due 25 to leaking underground storage tanks and other

1 spills that might have occurred on the site. 2 As we talked about last time we're focusing on 3 three particular areas where we think the 4 major contaminants are. Morris and his group 5 are going through the remedial investigations 6 onsite for this area, and they've already put 7 into a database all the available data they 8 have on the wells, both the supply and 9 monitoring wells in the area. So we're moving 10 along on that, but it is more complex, and at 11 our next meeting hopefully we'll be able to 12 tell you how far we've progressed at Hadnot 13 Point, if we're not done already, and what the 14 difficulties are. But that's where we're at 15 We've started it, but there's still a now. lot of work that needs to be done before we 16 17 start modeling, including geo-referencing the 18 rest of the wells. We've referenced 100 of 19 These include all the wells on base, them. not just Hadnot Point when we say 150 wells, 20 21 and there are still some that need to be geo-22 referenced. So that's where we're at, and 23 that's what's -- we wrote up here. 24 MS. DYER: Can I ask you a quick question, 25 Frank? The area between TT-1 and TT-2 was a

1 shopping center. They had a gas station 2 there. Has there been any of the BTEX found 3 in that area? 4 DR. BOVE: Can you guys help me out on that 5 one or no? 6 **UNIDENTIFIED SPEAKER:** I'm not sure. 7 MS. DYER: Because I was under the 8 understanding that there was leakage there. Ι 9 mean, I talked to a woman who worked there for 10 years, but is sick. She could see the fumes 11 coming out of the ground all the time. 12 MR. ENSMINGER: Well, where the service 13 station was, and it's an installation and 14 restoration site. There is a monitoring well 15 field where the old gas station was there. 16 DR. BOVE: I think if you --17 MR. ENSMINGER: That's where they fired the 18 manager, stealing gas. 19 MS. DYER: You said that BTEX didn't affect 20 the TTs but there was a teen club there. 21 There was a roller skate; there was a daycare. 22 I mean, I used to stay in it, so I 23 participated in all those things there. There 24 was a little commissary there. There was some 25

1 DR. BOVE: So you're talking about the 2 Tarawa Terrace system being affected by BTEX. 3 MS. DYER: Yes, how could it not have been 4 if it was located right in between the two 5 Terraces, how could you not have BTEX there? MS. RUCKART: This is a question that we can 6 7 raise with Morris and let him know. 8 DR. BOVE: My understanding is we've 9 identified all the sources of contamination to 10 the wells serving Tarawa Terrace, and BTEX 11 isn't among the contaminants there. That 12 Hadnot Point is where the BTEX contaminants reached supply wells, and the particular area 13 14 is the industrial area, the industrial area in 15 particular where there's guite a bit of 16 contamination from BTEX, so not at Tarawa 17 Terrace. We haven't seen there. Nothing that 18 I've seen has shown contamination of the 19 Tarawa Terrace wells with BTEX. But you can 20 take, this is something, you can call Morris 21 up and ask him. We'll also ask that question. 22 MR. BYRON: The question is, or my question 23 is would you have seen it if you weren't 24 testing for it? 25 DR. BOVE: Would you have seen it if you

1 weren't testing for it. In the first couple 2 of tests, they weren't testing for any of 3 these. They were testing for trihalomethanes 4 and saw blips where there was an obvious 5 interference, and in '82 same thing. And then 6 they analyzed it, and then they could see it. 7 There were also -- again, Morris would be the 8 best person to talk to. 9 MS. DYER: Yeah, but then again the question 10 is --11 DR. BOVE: They did a full scale --12 MR. BYRON: So there may be blips, but we 13 don't know because we haven't asked Morris. 14 DR. BOVE: No, no, no, no, the sample in '82 15 was re-analyzed and that's where the 16 chlorinated solvents were found, the 17 particular PCE was found. And none of the 18 sample data has shown BTEX at Tarawa Terrace 19 as far as I know. Again, you, we can ask 20 Morris again to go over this. It's too bad 21 he's not here, but it's really, the BTEX chemicals are really a problem with the Hadnot 22 23 Point system. 24 MS. DYER: I mean, you know, I'm just used 25 to blood tests. If you get a blood test, you

have to put in that you have to check it for diabetes. So is that the kind of thing you have to check it if you want to check it for BTEX?
DR. BOVE: Well, again, Morris knows the history better than I do, but there was a full organic scan of the water at Tarawa Terrace, and that wasn't found. So they did test for BTEX all across the board as far as I know, but again, this is a question I can ask Morris, and you could also call him as well. We'll try to clarify that.
MR. STALLARD: Okay, so that's an outstanding question that we'll find out from Morris.

MS. McCALL: I'm just wondering if you can answer real quick. How come BTEX just all of a sudden showed up which it wasn't in the 1997 Public Health assessment? Nowhere, no way, shape, form. And all of a sudden when we came to the last meeting, I saw BTEX up there, and like, I got to find, what is that? And it now just appears and kind of just shooed in under the door, and it's just magically there, and we don't know where it came from, and why it's

1 there now, why it wasn't there before. I just 2 want to know. It's gasoline basically, 3 petroleum products. **DR. BOVE:** I don't have the '97 health 4 5 assessment with me. 6 MR. ENSMINGER: BTEX showed up on somebody's 7 finished water samples at Tarawa Terrace that 8 weren't made public like the JTC ones, and it 9 was like three parts per billion in the 10 finished samples. 11 DR. BOVE: This is a question we're going to 12 have to work out with Morris being here. 13 Morris is not here, and I can't answer these 14 questions. As I said we've modeled the whole 15 system, and this is what we have is the 16 chlorinated solvents in the system. 17 MR. STALLARD: Okay, folks, I think, is this 18 an appropriate time to take a break? And if 19 you have not ordered your lunch, in the 20 audience, please, you're also welcome to order 21 lunch if you didn't hear. I'm going to turn 22 on the timer for 15 minutes. Please be seated 23 as the beeper goes off. 24 (Whereupon, a break was taken from 10:35 25 a.m. to 10:50 a.m.)

1 MR. STALLARD: Folks, hello. Tom are you 2 still with us? 3 MR. TOWNSEND (by Telephone): I am. 4 MR. STALLARD: We're going to resume now. 5 I'd like to remind those who are rejoining us 6 to please turn your cell phones and/or 7 Blackberries on stun in the event you used 8 them while you were out or turned them on. 9 Thank you. 10 So Perri, are we ready then to move on 11 from the water modeling discussion and into 12 the datasets? Or let me ask the CAP, are we 13 ready to move on from water modeling to -- all 14 right, then so be it. 15 RECAP OF SEPTEMBER 2006 MEETING AND UPDATE: 16 DATASETS AND OTHER ITEMS 17 MS. RUCKART: What we're going to do now is 18 kind of a similar thing with the water 19 modeling. We'll give a recap of the major 20 points of the last meeting, and then update 21 you on what has happened since that meeting. 22 So one of the things discussed last time was 23 the computerization of the base family housing 24 records, and there are approximately 90,000 of 25 those.

1 And during the last meeting we 2 reported that we had tried to start this effort in-house, that of the 90,000 records 3 4 some data were input for about 12,000, and 5 these were people that were part of the 1998 6 study, and that we were in the process of 7 trying to hire a contractor to complete the 8 data entry for all the records. So since then 9 we have been able to hire a contractor who 10 began work on this in January, and as of today 11 we've entered approximately 74,000 records. 12 One thousand records cannot be entered 13 because there's incomplete information in 14 terms of where they lived. We just can't read 15 the address from the hard copy. And 16 unfortunately 15,000 hard copy records are 17 missing, and we just have not been able to 18 find these and don't feel that we will ever be 19 able to find them. 20 **MR. ENSMINGER:** Where are they missing from? 21 Did you have them at Camp Lejeune? MS. RUCKART: Well, what happened was we got 22 23 these records in the early- to mid-'90s to use 24 for the 1998 study, and they passed through a 25 lot of hands. So these were hard copy records

1 that were made of the cards that are kept on 2 base that show for a particular address who 3 lived there over the time period. So we have 4 photocopies of those, and for the 1998 study 5 they entered the names of everyone from all 6 the addresses, and that was about 90,000 7 people. 8 But they only entered complete 9 information in terms of move in and move out 10 date and rank and some other information for 11 the people who were part of the 1998 study. 12 So that's how we know that there were 90,000, 13 and we assumed that we had all the boxes 14 because we had four or five boxes of records 15 and each sheet contains a lot of people's 16 names on them. And then when the contractors 17 finished entering everything that we had, 18 there were only 74,000 that could be entered 19 plus a thousand or so that can't be entered. 20 So that's 75,000. So we estimate that 15,000 21 are missing. 22 Now Frank and I have looked through 23 the records room over here in this building 24 numerous times, pulled out every single box to 25 try to see can we find these records because

we've moved since the '90s. You know, our offices have moved and things have been stored in different places. We cannot find these records. We just don't know where they could be or when they could have gotten lost.

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DR. BOVE: What we think is, and it's unfortunate that all the data wasn't entered all at once. And I wasn't around back then, and I don't know why we didn't do it. I think the box probably got lost way back when in the early '90s when the contractor entered them all in. The box never got back to us. That's the only thing I can understand because it's not here. It's not in any records room in ATSDR so I don't know where else it could be.

What I did do is try to figure out, now there's 90,000 records but that's not 90,000 people. A number of people have multiple addresses. So I think I did this before and figured out that it's like about 67, 68 thousand individuals who have unique names. So I don't know how many of these 74,000 are unique people either. I haven't done that yet. We just have gotten the data finally completed, and I have to go through

it.

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But what I tried to find out is who 2 3 was missing, because I have from the '90, from 4 the original database I have names, 90,000 5 records. And I matched with what we had to 6 see which didn't match and then tried to 7 figure out is it a couple of streets. Maybe 8 we could go back to Camp Lejeune and look at 9 the couple of streets that seem to be missing. 10 Unfortunately, it seems to be almost 11 every street which I can't understand. So the 12 way these hard records are, and you have a 13 better recollection than I do, is it's each 14 street you have a list of names. For every 15 street, for many streets to be missing, that 16 box must have been, I don't know. I can't 17 figure out. So I don't have a strategy for 18 recovering those 15,000. I just don't know 19 what to do. 20 MR. BYRON: Could I ask this? Is that 21 contractor that's doing the work from January 22 '07, is that the same contractor that had the 23 records? 24 DR. BOVE: No. 25 MR. BYRON: Did we go back and ask the

contractor if they had the records? Did you look for a box of Camp Lejeune records?

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DR. BOVE: I've asked someone to contact that contractor. I don't think we've gotten an answer from them yet. The problem with that contractor is they've gone through different changes as well. So they've been They've been, you know, so we'll bought out. try that. That's the only strategy we have left is to see if somehow the box will turn But we're talking about a box that's been up. missing now for, say, 16 years I would say, 15, 16 years. Why we weren't aware of it back then, I can't say that either.

MS. RUCKART: Well, one thing I want to say is that even though we're missing 15,000 we still have a database of 74,000 records, and that's still a lot of data to work with. So I don't want people to be getting bogged down on that we have this percentage missing. Please focus on the fact that we do have 74,000. That is a lot. That's a lot to work with when you consider that previously we had 12,000. DR. BOVE: Now the bottom line though, in the updates you see, the last bullet is that

1 you don't have date of birth with these. All 2 you have is the name, when they were there, 3 their rank and where they were, the street 4 address. And so when we -- we'll talk about 5 this later -- when we sent the records over to 6 DMDC to match, they can do a good job when you 7 have date of birth, and they can't do a good 8 job when they don't. So this is, so just keep that in mind. We'll talk more about that when 9 10 we get to that section. So that's another 11 issue with these housing records. They are 12 what they are. It's not an unimportant source 13 of data. It's an important source of data, 14 but they have these limitations. 15 They didn't show a service MR. MARTIN: 16 member's service number or the social security 17 number on the housing records? 18 MS. RUCKART: No, the housing record, at the 19 bottom it will show the address, street 20 number, street name. And then for each 21 occupant it will have their last name, their 22 first name, middle initial. And I have to say 23 that not all that information is available for 24 every person. Sometimes it's just last name, 25 first name. Sometimes it's just last name,

1 first initial. But let's say if possible you have last name, first name, middle initial. 2 3 Then it has the rank. Then it'll have the 4 date they moved in, the date they moved out, 5 and then it might have some comments, but the 6 comments are like a series of letters that I 7 think, you know, we're not using for our 8 purposes. We don't know necessarily what they 9 Sometimes it'll have the PEBD, which I are. 10 guess is the date they started service. And 11 then they'll have maybe when they're eligible 12 to retire so nothing that's essentially needed 13 for, you know, locating people in the future 14 or finding out more information about 15 dependents or anything like this. And then it 16 might have some comments like sprayed for 17 roaches. I mean, things that really are not -18 19 DR. BOVE: They scribble on these cards. 20 Jerry just asked me if I saw his name among 21 the missing or not. What I did was, after I 22 matched, I pushed them aside and looked at the 23 ones that weren't matched. These are the ones 24 we're missing, and I didn't look at names. Ι 25 just wanted to see what streets were missing,

1	so that's all I've done.
2	And I saw that a whole lot of streets.
3	I threw my hands up. If we go back to Camp
4	Lejeune and try to look through all these
5	streets, you might as well re-do the whole
6	thing all over again. That's basically what
7	it amounts to. So that strategy won't work.
8	The only strategy is to see if that box
9	somehow is still at the old contractor.
10	MS. McCALL: Maybe we can notify people, and
11	they can give you the information.
12	DR. BOVE: How? These are all
13	MS. McCALL: Use mass media. Were you
14	there? What time were you there?
15	DR. BOVE: Oh, okay.
16	MS. McCALL: Call this 800 number.
17	DR. BOVE: Because just having the name
18	MS. McCALL: We can put it out there.
19	DR. BOVE: Just having the name is not
20	enough.
21	MR. MARTIN: There's also
22	DR. BOVE: There are other strategies and
23	other data we can use for
24	MR. MARTIN: One thing that I don't recall,
25	it may have been mentioned there again, but I

1 thought about it, I think it's since the last 2 meeting, is that even as children, as soon as 3 we turned a certain age -- I can't remember if 4 it was eight or ten -- you had to go out, 5 anywhere you went on Camp Lejeune you had to 6 have a military ID card. And that had your 7 father's name and rank, his number. 8 MS. DYER: They didn't keep that? The 9 Provost Marshall's Office didn't keep it or 10 anything? 11 DR. BOVE: We don't have that data. 12 DR. RENNIX: Well, the electronic database, the ''s database, and that's 1993 that ', 13 14 enterprise-wide. So if there was a local 15 system, then there would be a local system. 16 But that's as far as DMDC having access to it, 17 it would be 1993. 18 MR. ENSMINGER: Old phone books would have 19 people's addresses. 20 That could be an idea. MS. DYER: What 21 happened to, anything happen with the school? DR. BOVE: We're going to get to all of 22 23 that. Let's move down. But that's all we 24 wanted to say about the housing records. So 25 since the last meeting we did get them all

1	entered, and we've had them QA/QC, too.
2	MS. RUCKART: But just keep in mind, I mean,
3	each of these sources is just one source.
4	We're going to be trying to work with all the
5	sources together to get the complete picture.
6	So that's just one avenue. And I think having
7	74,000 records to start with is pretty good.
8	MR. MARTIN: And what year did this go back
9	to as far as the base housing records?
10	DR. BOVE: The early `50s.
11	MS. RUCKART: It started in the early `50s,
12	but I'd say the bulk of it are the late `60s,
13	'70s. I mean, there are fewer entries prior
14	to the late `60s.
15	DR. BOVE: But there are some.
16	MS. RUCKART: So as far as accessing the
17	base school records, we discussed this last
18	time. We had requested some information from
19	the DoD Education Activity, and at that time
20	we were told some preliminary information that
21	the records were kept for about 50 years. We
22	were told about what data may be available,
23	and our hope was that we could link the names
24	and addresses of the students from transcripts
25	with the base family housing.

1 And we were told that no records were 2 kept for the elementary and middle school. So 3 we have had interactions with DoD EA and 4 gotten more information about our request. 5 They did provide us with sample transcripts. 6 From these sample transcripts we can see that 7 you can get the first, middle and last names 8 of the student, their home address, the name 9 of the parent or guardian, which may or may 10 not be the military member, I'm not sure, the 11 date of birth and the sex of the student. 12 Records are potentially available from before 13 1971, possibly as early as 1946, but we can 14 talk about that in a minute, some more 15 information about years of data available. 16 High school yearbooks are also available, but 17 I believe they're located on the base. You'd 18 have to go onto the base and do some 19 photocopying of yearbooks. 20 MR. ENSMINGER: You can't recognize anybody 21 in them. 22 But so these records that MS. RUCKART: 23 we're talking about, the transcripts, are on 24 microfilm reels, and they're located in Fort 25 Benning, which is south of here. It's in

1	Georgia. But we've been told that some of the
2	microfilm reels are severely damaged and
3	unreadable. And others are damaged but
4	potentially readable using some sophisticated
5	equipment, and we're not sure of the
6	conditions of other reels.
7	We were told that reels from years
8	1971 and 1979 are damaged. There are four
9	reels labeled graduates up to 1971, and they
10	are reported to have an alphabetical listing
11	of student records dating back to 1946, but
12	these reels are in very poor, fragile
13	condition. Two of the four reels are not
14	readable. They're very warped, and the other
15	two are severely damaged and very fragile.
16	It's possible that these two reels may
17	be able to be read using these very
18	sophisticated machines. So we're under the
19	impression that there are 54 reels, 42 of
20	which are 3M cartridges. A machine to read
21	the 3M cartridges is not available in Fort
22	Benning, but there is a machine available at
23	CHPPM, which is the U.S. Army Center for
24	Health Promotion and Preventive Medicine. But
25	this machine would need an attachment that

1	costs \$2,700 in order to read the cartridges.
2	So in March we have posed the question
3	are there any obstacles to having the
4	cartridges which are at Fort Benning
5	transported to CHPPM so we could use that
6	machine that they have with the attachment to
7	read them, and we've also discussed the
8	possibility of making a site visit to Fort
9	Benning so we could evaluate the condition of
10	the reels. And we're waiting to hear back
11	from the DoD EA on that request.
12	MS. DYER: Did you ever do anything with the
13	alumni there? You know, the alumni group I
14	gave you?
15	MS. RUCKART: Well, I've, we talked about it
16	at the last meeting. We can't necessarily
17	access some of these websites because you need
18	information that we don't have. So we were
19	hoping that you, some of the CAP members could
20	do that because to get access to some of these
21	websites, you have to sort of show your
22	relationship to the military, have information
23	that we wouldn't have.
24	MS. DYER: Not with the Lejeune. There's a
25	person I can give you, if you contacted her, I

1	just think that there should be something that
2	I know that I worked with you about putting
3	something on there.
4	MS. RUCKART: Well, we can talk about that
5	later. I've looked on the website. It was
6	awhile ago so I can't
7	MS. DYER: I mean, I've, but I mean, I think
8	it needs to come from maybe a
9	MR. MARTIN: That goes right back to the
10	Commandant versus Dave Martin, who are you
11	going to listen to?
12	MS. DYER: Yeah, I mean, that's what I'm
13	saying. And I can get on there. I have, you
14	know, it's just an alumni, but if it was
15	coming from you all and you're asking specific
16	information, and telling them what you needed,
17	then you're going to get some answers. It is.
18	It's just what Dave says, Terry Dyer versus.
19	DR. BOVE: Well, I think that again, we've
20	been told what the reels are like, and when
21	Perri said they can be recovered by experts,
22	we don't know exactly what they meant when
23	they said that, and what kind of machinery
24	would be necessary. The description I got in
25	the letter they sent to me was that the

1	leaders were broken off the tape. The tape
2	was fused. I have it here, fused together.
3	So you just basically couldn't read it at all,
4	some of the reels.
5	And some of the reels were warped, but
6	it sounded like if somehow experts could
7	probably extract some information, but I'm not
8	sure what experts they were talking about and
9	what machinery it would require. So I wanted
10	to go down there and see how many are at least
11	readable by regular machinery that you have,
12	that CHPPM has. They have a tape reader or
13	just a microfiche machine if that's necessary.
14	My sense is that they don't have that
15	equipment at Fort Benning. Why they have the
16	reels there I'm not sure, but you would think
17	they'd have them where they could read them.
18	But anyway, but maybe not. But what
19	we're asking is if there's an obstacle to
20	sending those reels to some place where they
21	could be read. And we didn't ask to read them
22	yet because, again, we'd have to decide
23	whether we want to go that route or not. But
24	whether there was any problem with that, with
25	them shipping them to CHPPM.

1 DR. RENNIX: When I spoke to the DoD EA 2 people basically they don't get requests for 3 high school transcripts from these, so they 4 put them in archives. They do have data 5 systems though they built in the mid-'80s. 6 They were electronic. They just stopped 7 taking care of the microfiche and went fully 8 electronic, picked up in the mid-'80s. So 9 unless they get requests there's no reason to 10 go and get those. When you store film, it's 11 acetate film. If it's not stored perfectly, 12 it's just going to fall apart. 13 MS. DYER: You were saying that they needed 14 funds to get something? 15 DR. BOVE: No, no, no, and that shouldn't be 16 a problem. It's just how much it costs to get 17 an attachment. So that's not an obstacle. 18 The obstacle is are they willing to move the, 19 send the 3M cartridges to CHPPM. If for some 20 reason they can't do that, we'd have to hear 21 what those reasons are and what to do with the 22 ones that are in bad shape. 23 MR. BYRON: Send them to a forensic lab. 24 DR. BOVE: Send them to a forensic lab. 25 MR. BYRON: Yeah, that's where I'm, and

1 there again, I'm a simple person. But it 2 seems like if I have contracted with an agency 3 to store and archive vital records, I mean, 4 the Archives in D.C. can go back and give me a 5 service men in the Civil War's paycheck. But 6 if I'm contracted with an agency, why aren't 7 they acting upon themselves to restore and 8 preserve these records? These are historical 9 records that obviously there was a purpose for 10 keeping, to keep them in a closet and let them 11 deteriorate and fall apart to where they're no 12 longer usable, throw them in the dumpster. 13 DR. BOVE: I can't answer that question. 14 MR. BYRON: Probably never looked at them to 15 determine they were deteriorating until called 16 upon. 17 DR. RENNIX: It doesn't say specifically 18 these records have to be available for 19 perpetuity. There's no reason to put them in 20 the archives. This is not in archives. This 21 is just a storage facility it sounds like. So 22 it's not ^. It's just somewhere. These are 23 high school transcripts so I'm not sure 24 there's any laws that require you to keep 25 them.

1 DR. BOVE: It's again one of these 2 situations where we're going way back in time 3 in a time period when people didn't think 4 these records would be used for anything, and 5 this is just another example. 6 Any other questions about this 7 situation? We'll try again. We contacted 8 them in March. I wanted to go down there. 9 They were checking it out. It wasn't that 10 they weren't responsive. They've e-mailed me 11 at least twice since then saying that they're 12 still trying to resolve these issues. I'm not sure if the problem is -- I don't even know 13 14 what the problem is so I won't even speculate. 15 But they have promised to get back to me, so I 16 just haven't heard up 'til now. 17 MR. BYRON: I find it kind of amazing that 18 the Marine Corps would keep grade transcripts 19 for 50 years, but Onslow Memorial Hospital 20 didn't even keep the medical records of people 21 that they treated for over seven years. ^? 22 And if the Marine Corps doesn't have medical 23 records for, I don't know what, 80 percent of 24 the people probably? Here? But they kept 25 grade transcripts?

1 DR. RENNIX: Hold on a second. DoD 2 Educational Authority has nothing to do with 3 the Marine Corps. The DoD system is separate 4 from it. It's a separate DoD agency. 5 MR. BYRON: They're all the Department of 6 Defense to us. 7 DR. RENNIX: I understand. I understand. 8 MS. DYER: You got anything under mortality? 9 MR. BYRON: They gave us that. 10 DR. BOVE: What? 11 MR. BYRON: The mortality. 12 **DR. BOVE:** Mortality? 13 MR. BYRON: Of the study group. 14 MS. RUCKART: No, no, I think she's talking 15 about the future study of mortality, but we're 16 just on page two of our handout. 17 DR. BOVE: All right, let's move on to the, 18 and Chris is hopefully going to chime in a lot 19 here, the Naval Health Research Center. As 20 you remember we sent them ICD-9 codes, codes 21 for particular kidney and liver diseases, and 22 we wanted them to tell us how many were in 23 their database from 1980 to 2000, 1980 being 24 the first year they had Marines in the 25 database. And we also asked them -- this

1	isn't, this is, I guess, under update but
2	we also asked them subsequently if they could
3	give us an idea of the size of the cohort
4	they're following.
5	We also asked after the CAP meeting,
6	but we asked them as well to give us a sense
7	of how much of the cohort that they're
8	following consists of Marines, and if they
9	could, how many of those Marines had been
10	based in Camp Lejeune to get a sense of that.
11	If you have the number of diseases in their
12	database and you have an idea of the percent
13	of the cohort that's Marines, you can do what
14	we call a statistical power calculation. You
15	get a sense of how useful this database would
16	be in a study basically. And we'll talk about
17	statistical powers maybe later.
18	So that's what was asked for, and
19	there's been a lot of problems in getting data
20	from the Naval Health Research Center. And a
21	lot of the issues revolve around privacy and
22	confidentiality as far as I can understand
23	them. We went to our own CDC IRB,
24	Institutional Review Board, and asked them
25	does this request constitute a study that

1	involves human subjects that would be under
2	the Human Subjects guidelines for doing the
3	study, that we'd have to show that we're
4	protecting confidentiality and so on. And the
5	CDC IRB said, no, it's not a study. You do
6	not have to follow these, you don't have to
7	worry about these guidelines.
8	We sent that information off to Naval
9	Health Research Center, reiterated what we
10	wanted, and the message back was that there
11	were still some privacy issues that they had
12	to deal with.
13	And Chris, chime in whenever, because
14	it was very difficult to
15	DR. RENNIX: ^ pause in your talking.
16	DR. BOVE: Yeah, go ahead.
17	DR. RENNIX: The Naval Health Research
18	Center is an organization that receives its
19	data from the TriCare Management Authority.
20	That's who owns health data. They have a,
21	they have a data use agreement that describes
22	how NHRC may use the information, and how they
23	can give that information out. And in order
24	for them to release information to somebody
25	outside of that data user agreement, they have

1	to get permission.
2	So in between the January time that
3	Frank provided all the documents and now, they
4	told me they looked at what was provided by
5	CDC, and in their IRB's opinion, they still
6	require a modification to their data use
7	agreement. That data use agreement based on
8	my experience when data is modified it can
9	take several months.
10	So what I've done is I've taken a
11	point paper to our Surgeon General and asked
12	him to intercede to expedite the data use
13	agreement modification to get the data out.
14	So it's not a question of running the
15	information, it's a matter of getting them
16	permission to release anything from that to
17	ATSDR.
18	MS. McCALL: Chris, has anybody ever thought
19	that people would not mind having their
20	privacy violated to tell them that they were
21	contaminated by water?
22	DR. RENNIX: The issue there is there are
23	people who do mind. Unless we poll everybody
24	and get their permission, then not.
25	MS. McCALL: I don't understand.

1 **DR. RENNIX:** When we collect this data, when 2 somebody goes into a medical treatment 3 facility, there's a release on every form that 4 says that this information may be used for 5 health research. So in order to keep research 6 organizations from publishing a report that has people's names in it or information that 7 8 talks about the one HIV case that happened on 9 this base on this day, and everybody knows who 10 it is then because that's the person that 11 would be, well, there are very strict rules 12 for protecting privacy. And so when we get 13 data from these organizations that collect it 14 for us, we have to tell them exactly how we 15 plan to use it so they then give us permission 16 to use that data. 17 MS. McCALL: Okay, so let me understand 18 then. You would contact the person because 19 you have all the information, all the contact 20 information, and say, we can't tell you why we 21 need to contact you or did they tell you why 22 we're going to contact you? I don't 23 understand. 24 DR. RENNIX: So TriCare Management Authority 25 has a database of all the healthcare visits

1 that happened since they've been keeping 2 computerized records. And in there, they are 3 the custodian and protector of privacy. When 4 they give that data to somebody else, we agree 5 to limit how we will use that data, and how we 6 will expose that information to the public. 7 So it could be just something as simple as 8 their DUA, data use agreement, says that all 9 this information can only be released to Navy 10 and Marine Corps activities. 11 ATSDR's a separate agency. If they gave it to me, I still couldn't give it to 12 13 ATSDR because I'm bound by that same data use 14 agreement. So what we need to do, and if I 15 understand what the problem is, they need to 16 have their data use agreement expanded to 17 allow them to release the information to an 18 outside agency. 19 MS. McCALL: Or if the Marine Corps wanted 20 to contact people --21 DR. RENNIX: The Marine Corps does not own 22 this data. TriCare does. They have no say on 23 it. It's not even paid for by the Marine 24 Corps. It's paid for by another DoD agency 25 that protects health information. And let me

1	tell you, since the VA lost that laptop a
2	couple years ago, any information we get from
3	them that we can use for research is very
4	difficult to come by. It's very highly
5	protected.
6	DR. BOVE: CDC has to follow
7	MS. MCCALL: It's not a stolen laptop
8	though. It's legitimate reason
9	DR. RENNIX: No, no, if they gave me that
10	data, and I didn't protect it, and it got
11	released somehow, it has socials, date of
12	births, all sorts of information there that is
13	private information and
14	MS. MCCALL: This is just a problem that
15	came up two years ago with the VA laptop being
16	stolen and the notification problem has been
17	going on for 20 years.
18	DR. RENNIX: This is not notification. This
19	is health care and it's separate from the
20	notification issue.
21	MR. MARTIN: I have a question. This
22	TriCare, was this formerly CHAMPUS?
23	DR. RENNIX: Yes. CHAMPUS is a sub-branch
24	of them.
25	MR. MARTIN: Okay, so they would have to

because TriCare just came about, what, in the 1990s?

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DR. RENNIX: Yes, it's more of an umbrella. CHAMPUS was strictly for almost like a health care for anybody that was inactive duty was CHAMPUS or if you got health care outside of -- well, I'm saying not active duty. So the way of tracking those costs, so a lot of the family members got care out in town when they couldn't be seen in the hospital, at CHAMPUS they would have tracked those costs. All this health data was collected for financial, fiscal reasons, not for health research. So there's not a lot of health information in there other than the diagnosis, which is what we want but a lot of other information like, you know, they had the high blood pressure, and they were obese, and they smoked. That's not in there because it has nothing to do with paying the bill.

21MR. MARTIN: Then they should be able to22help me in my search since a lot of this was23done between Camp Lejeune Hospital and Duke24University, in my mother's case.

DR. RENNIX: So there would be records if

they paid that bill somewhere in their data system.

DR. BOVE: But how far back?

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4 DR. RENNIX: Well, for family members I know 5 that the ambulatory, which were the outpatient 6 clinic visits was about 1992 when the military 7 started recording those in a database, 8 enterprise-wide, across the whole DoD. I was 9 in Japan, from '93 to '96, and we didn't start 10 recording those visits 'til about 1995. So it 11 was a phased approach from '92 forward. 12 'Ninety-three is considered probably the time 13 where it was pretty consistent. Active duty 14 records go back to pre-1980, but again, it was 15 phased in for different services. The Army 16 was ahead of everybody else. 17 MR. MARTIN: So dependent care in 1970 to 18 '74 is --19 DR. RENNIX: Is not computerized. If it was 20 kept, if you were admitted, you can get your 21 admission record. I think I sent out the 22 website you can go to to request health 23 information from the medical archives. I sent 24 that out in October to the CAP. There's a 25 website you can go to to find out how to

1	request a record for a visit you had. When a
2	birth occurred, you can request that
3	information.
4	MR. BYRON: From CHAMPUS?
5	DR. RENNIX: It would be from the Archives,
6	both
7	MR. BYRON: But if you were CHAMPUS at
8	Onslow Memorial, would those records be there?
9	My daughters were born in Onslow Memorial, and
10	when I went there in 2000, they said they were
11	destroyed after seven years. So would a copy
12	be there?
13	DR. RENNIX: What's destroyed is the
14	MR. BYRON: Medical.
15	DR. RENNIX: no, no, no, is the inpatient
16	notes that the doctor writes down the charts.
17	That where the actual healthcare final
18	disposition is kept forever in a file. It's
19	kept in a box somewhere in archives. And you
20	
21	MR. BYRON: From Onslow Memorial even?
22	DR. RENNIX: That I don't know how far back
23	those go. I've never been asked to look for a
24	dependent, a family member from
25	MR. BYRON: The reason I ask is because it

1	was just a, you know, general statement to us
2	that all the records from Onslow Memorial
3	Hospital were destroyed after seven years, but
4	they were CHAMPUS.
5	DR. RENNIX: You know your child's birth
6	date or the of course, you know your
7	child's birth date. That's a stupid
8	statement. There's a way to request and see
9	if that record exists. It's through the
10	Archive system actually. But you would have
11	to file a request through Lejeune, the
12	hospital, to go and request that box that has
13	your record in it. That box gets delivered to
14	Lejeune and then they can see if the file's in
15	there.
16	MR. BYRON: So it has to get delivered to
17	Lejeune before they can do the search?
18	DR. RENNIX: They own the records.
19	MR. STALLARD: Dr. Rennix, could you tell,
20	recap once again what you said about the point
21	paper to the Navy Surgeon General, talk about
22	that.
23	DR. RENNIX: This flurry about the DUA, data
24	use agreement, I thought that what CDC said
25	would convince them that they did not need to

1 get any additional requirements. They came 2 back and reiterated they did need to get a 3 modified data use agreement. So I sent a 4 point paper to our Surgeon General asking him 5 if they couldn't resolve it very quickly that would he please intercede and accelerate the 6 7 process. 8 MR. BYRON: One question. Is this the same 9 Surgeon General that served at Camp Lejeune 10 for many of his career years? 11 DR. RENNIX: Oh, no, I believe this Surgeon 12 General's been in D.C. most of his career. 13 MR. BYRON: Okay, because I have to be 14 honest, it might fall on a deaf ear because he 15 was the head of the hospital, you know, 16 previous, and he was head of the hospital for 17 years which we've never got a single record 18 from on anything. 19 DR. RENNIX: Okay, I'm still here so 20 obviously they're not trying to keep me out. 21 MR. STALLARD: So one thing that, in terms 22 of expectations, is some feedback on that 23 point paper and what might be the outcome of 24 that in terms of data use. 25 DR. RENNIX: The data use agreement process

is NHRC forwards it to TriCare, and ^ endorses 1 2 it, approves it, and then TriCare will process 3 it. If the Surgeon General takes interest in 4 it, they tend to move quickly. 5 MR. BYRON: Let me ask you this. Does 6 hematology say, you know -- I don't know how 7 to put this. Are notes and e-mails and so 8 forth also kept, from the hospital at Camp 9 Lejeune? 10 DR. RENNIX: Oh, I have no idea about that. 11 MR. BYRON: So I guess what I'm getting at 12 is I find it very hard to believe that the 13 base hospital officials didn't know anything 14 was going on, yet there's never been any kind 15 of paperwork from the hospital at all. In 16 other words the Environmental Division didn't 17 talk to the hospital that, you know, we have 18 elevated levels of chemicals in the water. Be 19 on the lookout for increased birth defect 20 rates, or that surgeons who go through eight 21 years of college. 22 DR. RENNIX: To be honest with you, Jeff, I 23 think that things have changed. I don't know 24 what people were thinking back in 1985, and I 25 don't know what we could do. Remember that

1	most of these things are not acute in adults
2	or older children. Most of these effects are
3	going to be more or less chronic.
4	So, and I don't know what they didn't
5	notice. There is a birth defect registry, but
6	I don't know how far back that goes. I think
7	it's just probably the `90s also. But I'm not
8	sure they have the ability to actually track
9	those sort of things other than a green book
10	somehow.
11	MR. STALLARD: Other than a green book?
12	DR. RENNIX: Green book where they just log
13	it.
14	MR. BYRON: Are there any ^ available at the
15	hospital at that time? Because I'm curious
16	because they did tests on my daughter. They
17	did blood work on her, and it had come back
18	that she was below the averages.
19	DR. RENNIX: Was she admitted? Was she
20	actually
21	MR. BYRON: Well, they never, well, she was
22	outpatient.
23	DR. RENNIX: She was outpatient. So I don't
24	think they kept outpatient records at that
25	time. They only kept inpatient records. I

1	think the best you can do
2	MR. BYRON: I'm not really looking for
3	records on my daughter. I want to know what
4	the pediatricians knew about the situation at
5	Camp Lejeune, if they knew. All I know, you
6	know, why the previous Surgeon General of the
7	Navy while stationed at Lejeune as the head of
8	the hospital, why they didn't recognize the
9	problem.
10	And I just, and also Onslow Memorial.
11	I mean, I'd like to find out what the birth
12	defect rate in three counties over might have
13	been versus Onslow. You're telling me they
14	don't, there's no cues thrown up, no red flags
15	came up about birth defects?
16	MR. MARTIN: Did you ever go to the old base
17	hospital at Camp Lejeune?
18	MR. BYRON: It's been many, many years.
19	MR. MARTIN: Do you remember the wards and
20	wards just full of people and children and
21	kids, and these doctors, you know, I just
22	recently thought about that. They were kids
23	themselves at that time. They were corpsmen
24	in the Navy. They were just fresh out of high
25	school. Some of the doctors were fresh out of

1 2 MR. BYRON: Right out of college. 3 **MR. MARTIN:** -- yeah, and had no idea. But 4 I know we'd get out there dark in the morning 5 and leave at dark in the afternoon and see a 6 doctor for about five minutes. We always 7 walked out with a handful of brand new 8 prescriptions to take around to the pharmacy. 9 So, I mean at that point we're talking about a 10 medical care that was God only knows what. 11 MR. BYRON: Well, like I said, I'm just 12 interested in finding out was there any 13 correspondence between departments at the 14 hospital or the Environmental Division 15 concerning birth defects or cancer rates or death rates. Just the amount of deaths that 16 17 occurred by the individuals they studied in 18 this in utero study, the death rate is 50 19 percent. It's real close to 50 percent. I 20 find that hard to really fathom, you know, 21 that that many people pass away --22 DR. RENNIX: Fifty percent of the 13,000? 23 MR. BYRON: Out of the 13,000. Fifty 24 percent of however many it's whittled down to 25 now of the original 107. I think y'all got

1 the statistics from Perri or Dr. Bove. 2 DR. RENNIX: Of the people the diseases of 3 interest are dying? MR. BYRON: I asked for the death rates of 4 5 those individuals who were part of the study 6 at this time, and I believe it's pretty close to about 50 percent. My daughter is the 7 8 youngest child roughly from Camp Lejeune. She 9 was born in 1985. The wells supposedly were 10 closed in '85, temporarily re-opened a little 11 later, but she would be like the youngest. So 12 if you added 30 years to her age, you're 13 talking about people that are dying by 50 14 years old. 15 I just wondered. It never piqued 16 anybody's interest at the hospital or the 17 Marine Corps says it hasn't. But there's 18 never been any records about any of it. But I 19 think I'm getting off point. I'd rather get 20 back. 21 MS. BRIDGES: You said you have, we can have 22 access to the inpatient records? 23 DR. RENNIX: I sent an e-mail in October to 24 the CAP and pointed you to a website to find 25 out how you would request that information.

1	MS. BRIDGES: I didn't get that. I
2	overlooked it. It's not your fault. It's
3	mine. I was moving.
4	DR. BOVE: We're having some technical
5	difficulties with the streaming as you can
6	see, so I don't I might have lost you.
7	MR. MARTIN: Yeah, you did leave me, and
8	that's not hard to do.
9	DR. BOVE: Well, what I asked
10	MR. MARTIN: But you're saying that out of
11	the initial study group that 50 percent of
12	those people are dead since that time?
13	MR. BYRON: From what I've been able to
14	ascertain.
15	MS. DYER: Frank, is that what you gave him?
16	MR. BYRON: He gave the statistics.
17	DR. BOVE: I'm sorry.
18	MR. BYRON: The death rate on the 107
19	children that were identified and then it's
20	been down to whatever now.
21	DR. BOVE: The number I gave you is what
22	I don't have it in front of me.
23	MR. BYRON: Fifty-four surviving out of 107.
24	MR. MARTIN: There you are, and those
25	studies started in 2001.

1	DR. BOVE: I'm not sure what's
2	MR. BYRON: I was talking about the records
3	from the hospital to the Environmental
4	Division at Camp Lejeune. Why hasn't there
5	been any? Why didn't the Environmental
6	Division say, hey, be on the lookout for
7	increased this, that or the other? Death
8	rate, birth defect rate, cancer rate. Where's
9	those records? Because I've got to believe
10	that there's something there. If they didn't
11	tell them
12	MR. ENSMINGER: You're giving these people
13	too much credit.
14	MS. DYER: What did you just say about the
15	50 percent, Perri?
16	MR. BYRON: I asked about, I said the death
17	rate, I'd asked about the death rate in the
18	original study participants, for the in utero
19	study. They said they had 107 cases.
20	DR. BOVE: A hundred and six.
21	MR. BYRON: A hundred and six, basically 54
22	of those 107 are surviving if I'm not
23	mistaken, and that's it.
24	DR. BOVE: On page eight, it's right here.
25	I knew it was here. I just couldn't remember

1	where it was. On page eight of the thing we
2	sent. Yes, this was sent out to Jeff
3	MS. RUCKART: This went to everybody.
4	DR. BOVE: Oh, we sent it to everybody?
5	MR. BYRON: Yes.
6	DR. BOVE: Okay, we sent it. I don't
7	remember. I remember making sure you go it.
8	That 57 confirmed cases, 31 were still alive.
9	MR. BYRON: That's pretty sad. There's a 54
10	percent survival rate?
11	DR. BOVE: Keep in mind some of the,
12	certainly the anencephaly cases died
13	immediately.
14	MR. BYRON: But the point is, is that no
15	matter what part of the country you go into,
16	54 percent of a hundred percent is pretty
17	high. And I mean, these are talking about,
18	we're talking about people that didn't make it
19	to 50 years old.
20	MR. STALLARD: Okay, so the question is
21	MR. BYRON: It's not really a question.
22	It's a statement. I'm saying that
23	DR. BOVE: No, these are serious diseases.
24	Of course the mortality rate's going to be
25	high. I don't understand what the question is

though.

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MS. DYER: He's not. He's making a statement that out of 107 there are only how many living --

DR. BOVE: No, not out of 107. It's not out of 107.

MS. RUCKART: The question was out of the 57 confirmed cases, 31, so 55 percent, were alive at the time of the survey because we only have information about the confirmed cases.

11DR. BOVE: We're talking about these12diseases, childhood leukemia, although the13treatment has improved greatly, there's still14going to be mortality. Spina bifida is,15there's treatments available, but it's also a16serious disease. Anencephaly is immediate17death.

MS. MCCALL: I think we all understand that they're serious diseases that wouldn't be there had they not consumed the water. That's the problem.

> MR. BYRON: I'm just saying a 54 percent survival rate no matter what the scenario is, is pretty poor if you only make it, you know, if we're only talking about up to 50 years

1	old. I don't care what you're looking at,
2	what scenario, that's just pretty sad.
3	MR. STALLARD: So where are we now on
4	updating the data sets from ^?
5	DR. RENNIX: Let's get back to your
6	question, Jeff, on page eight of the notes in
7	the back with other items. I did send out on
8	9 November the process to go through to
9	request inpatient records.
10	MR. BYRON: Thank you.
11	MS. RUCKART: Are we ready to talk about the
12	DMDC data now?
13	MR. ENSMINGER: Yeah, I want to hear this.
14	DR. BOVE: As you know we sent the oh, by
15	the way I just want to clarify from the
16	previous discussion about housing records that
17	the originals are still at Camp Lejeune. So
18	those aren't missing. Our copies of those
19	originals, that's what we're talking about.
20	So the originals are still on base, but as I
21	was saying, in order to go back and try to
22	find all those that were missing, we pretty
23	much have to redo the whole thing again. So
24	that's the only strategy there.
25	They do have the original housing

1 records. I'm not sure how they're kept, but 2 probably by street name just like, it's not 3 clear. But the originals are there. What we did in the early '90s, was our contractor went 4 5 out there and Xeroxed all the housing records. Then they data entered them. And what we're 6 7 talking about is that those Xeroxed copies of 8 our, were put in boxes, and one box didn't 9 make it back to ATSDR as far as I can tell. 10 MS. DYER: Is that just like a random, 11 random papers or were they in any kind of 12 order like by years that you know are missing? 13 MS. RUCKART: No, that's what we're saying. They were random. They were not stored in any 14 15 type of logical order. 16 DR. BOVE: It's like someone just like they 17 threw them up in the air and they just threw 18 them back. I mean, there was no order, no 19 rationale. I mean, I can't figure out an 20 order. 21 MS. DYER: Is it something that you need that maybe ATSDR shouldn't do, but the housing 22 23 authority there at Camp Lejeune could take 24 care of doing for you now? 25 DR. BOVE: The only thing I can think of is

1 that they hired someone to do just what we did 2 many years ago. 3 MS. DYER: Why don't we do that, Chris? 4 MR. STALLARD: I don't know. That's a 5 question for the group to ask for that kind of 6 relief. 7 MS. DYER: Well, why don't we do that right 8 now? 9 MR. MARTIN: We also said that, okay, Perri 10 said that, you know, that other 15,000 isn't 11 overly critical, but getting to where we need 12 to get to though. 13 DR. BOVE: Let's just keep that in mind that 14 they have, all I'm going to say is they have 15 the originals there. I'm not sure what kind 16 of order they have them. But in order to, 17 they'd have to do them all over again. 18 The DMDC data, we sent these housing 19 records, we sent 12,198 records to them. 20 Before I sent it to them I attempted to match 21 these 12,198 with those who participated in 22 the survey that's part of the current study 23 because I wanted to see what other information I could send them besides name and rank and 24 25 when they were there at the housing. So from

1	that survey I had date of birth, so I added
2	that for those I could match. And I also put
3	down spouse's name, too. I thought maybe that
4	might help them, too.
5	And I was able to match 9,291 of those
6	records so that's what we sent them. So it's
7	for 9,291 of the 12,000 and a hundred and some
8	we had date of birth and some additional
9	information on the spouse's name. So that was
10	sent out, and then there's a chronology here
11	of the Marine Corps finally sent RUCs and MCCs
12	to them that DMDC needed to do the matching.
13	And then we got a conference call with DMDC
14	when was that? March 5^{th} , and
15	MS. DYER: So she, Kelly Dreyer had the
16	codes?
17	DR. BOVE: No, Kelly Dreyer didn't have the
18	codes. Kelly Dreyer had to ask for the codes,
19	and there was some difficulty getting them.
20	I'm not sure what all the details were of
21	that. But it wasn't, there had to be some
22	legwork done in order to assemble the codes.
23	And I don't know all the details.
24	MS. McCALL: She sat in the audience
25	listening to us discuss how we were going to

1	get them, and how we can't get them, and who
2	has them and blah, blah, blah. And then all
3	of a sudden somebody writes a letter, and they
4	appear the very next day.
5	DR. BOVE: I don't know about the very next
6	day.
7	MS. McCALL: Well, yeah, this letter was
8	dated January 10 th .
9	DR. BOVE: Now it took them awhile to get
10	the codes together. I don't understand why
11	either. I don't know
12	MS. McCALL: We're not blaming you.
13	DR. BOVE: No, no, I'm just saying it take
14	them, at least according to them, it took them
15	some time to assemble the data, so that's what
16	they said to me. I'm just telling you what
17	they said to me. And we also asked, and it's
18	still there, the request, is to come up with a
19	strategy to link these codes with places on
20	base, but I'll get to that in a minute.
21	So with those codes they narrowed the
22	search to the universe of people who might
23	have been on base, and then they started the
24	matching process. For the ones, first of all
25	they found out, as I've been telling you, that

1 even though there's 90,000 records that 2 doesn't mean there's 90,000 people. The same 3 with these 12,198. There are 11,810, 4 actually, unique people. Some people moved, 5 had more than one residence. 6 When they used date of birth, they did 7 a good job of matching. They matched about 8 two-thirds of them. When they didn't have 9 date of birth to use and all they had was all 10 the other information that you have on the 11 housing record, it was not a very good match. 12 They had a lot of false positives so that they 13 really didn't have unique matches, and they'd 14 have to, basically, you'd have to go and check 15 every one of those to see who was who, who 16 actually did match. 17 So it just reinforced that just using 18 the housing records is going to be difficult 19 to try to get their social security numbers, 20 but if we don't have date of birth, the DMDC 21 has a difficult time using their database to get that information. So that's the situation 22 23 with that. And again, we only have date of 24 birth for those people who participated in the 25 survey, and it's really those 9,291 records

1	that we have date of birth for right now.
2	One of the things they were able to do
3	at the same time with their RUCs and MCCs was
4	they were able to identify close to 200,000
5	Marines that were stationed at Camp Lejeune
6	anytime from '75 through 1985. The RUCs are
7	not in the database before '75, and that's
8	unfortunate, and the zip code isn't on there
9	until even later than that. I think it was
10	'79 so that's not too helpful.
11	But they can identify 200,000 Marines
12	stationed at Camp Lejeune during that period
13	'75 to '85 so keep that in mind. That might
14	be a sizeable number to do a mortality study
15	with if we decided to go that route. So keep
16	that in mind.
17	One of the issues, again, I bring it
18	up again, is trying to relate those RUCs to
19	places on base where they're stationed, and
20	Jerry suggested I get command chronologies,
21	and Scott Williams sent them to me for one
22	year, and I haven't had a chance to look at
23	the ones that just arrived a week or so ago.
24	I also asked Kelly Dreyer to ask people that
25	she knows in the department that might have

1	some idea of how we can link the RUCs to sites
2	on base. So I said, you know, if she doesn't
3	know how to do it, I said maybe someone in the
4	Defense Department can figure out how to do
5	that.
6	MR. ENSMINGER: I can do it.
7	DR. BOVE: Jerry can do it.
8	But one thing after talking this over,
9	actually, with Bob Faye who did our
10	groundwater modeling, I mean, if you didn't
11	live in family housing, you lived in
12	bachelor's quarters, so most of those people
13	received Hadnot Point water. So knowing
14	specifically where they were on base may not
15	be absolutely necessary.
16	We may be able to assign exposures
17	based on the fact that they probably were
18	either in family housing or bachelor quarters
19	on base. So that's another thing to think
20	about. I'm not saying that's what we should
21	do. I'm saying that we may get around this
22	issue if we can't link the RUCs to particular
23	parts, places on base. It may not be
24	necessary. We may be able to assign exposure
25	without that.

MR. ENSMINGER: Back up one here, four, page four. In January 2007, Kelly Dreyer provided DMDC with RUC and MCC codes that DMDC needed to complete the matching process. Did you get a, were you provided a list of those?

DR. BOVE: No, I don't have the codes. Ιt went straight to DMDC.

MR. ENSMINGER: It would be nice to see them. I mean that way you can --

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DR. BOVE: Well, the codes don't mean anything to me either. What would mean something to me is the codes linked to places on base. That would mean something to me.

MR. ENSMINGER: That's what you've got to have a list of them so you can check them against those command chronologies.

17 DR. BOVE: Well, we could do that. I would like them to do that. I would like that the 18 19 Marine Corps to actually do that linkage and 20 not me because I'm not an expert on what went on on base, and I wouldn't be the best person 22 to do that, but if it has to be me doing it, 23 then I will request those codes, and I'll do 24 it. I think there's a better way of doing this, letting the people who know about the

1	base do it, not someone like me who, you know,
2	has only stepped on that base once so far.
3	MR. MARTIN: So we need the Marine Corps to
4	do what exactly?
5	MR. STALLARD: Can you kind of give me a
6	headline of what the issue would be, for the
7	Marine Corps to make a linkage of
8	DR. BOVE: No, as I said, I asked Kelly
9	Dreyer to, that we all need to strategize on
10	how to link these RUC codes. RUC stands for -
11	_
12	MS. RUCKART: Reporting Unit Code.
13	DR. BOVE: Thank you, Reporting Unit Code.
14	MR. MARTIN: We would want them to do that.
15	DR. BOVE: To places on base where they
16	would have been stationed. And we'd like them
17	to do that because they are the
18	MR. ENSMINGER: MCC stands for Monitored
19	Command Code.
20	DR. BOVE: Right.
21	And the other issue, one other issue
22	was that the RUCs that were given to DMDC
23	that sounds like alphabet soup is just for
24	the Marine Corps, not for the Navy personnel
25	that might have been on base. Now there are

1	not going to be that many more Navy personnel,
2	but that's another thing that we've asked that
3	
4	DR. RENNIX: There's only one code for the
5	hospital.
6	DR. BOVE: For the hospital.
7	So that's something that we could
8	send, get sent to DMDC for them to do that
9	additional quick poll of that code so we know
10	how many we have. But roughly we have
11	200,000, pretty close to 200,000 during the
12	'75-'85 period. Let me just make sure I
13	didn't
14	MR. STALLARD: So, Frank, may I just
15	clarify? This is something you said that from
16	'75 to '85 the records are available and may
17	be appropriate for a mortality study?
18	DR. BOVE: Yeah.
19	MR. STALLARD: Will cover approximately
20	200,000 people.
21	DR. BOVE: The last thing I asked was for an
22	idea of what percentage of retirees, Marine
23	retirees, well, the numbers of Marine retirees
24	retiring in each state so I had a sense of
25	which states most Marines retired to. There

1	are a couple of possibilities that I was
2	trying to explore, one with DFAS, DFAS? Is
3	that
4	MR. STALLARD: Defense Finance and
5	Accounting?
6	DR. BOVE: Thank you.
7	And the other one was, Jerry gave me a
8	suggestion to look at Semper Fi's newsletter.
9	MR. ENSMINGER: Semper Fidelus News.
10	DR. BOVE: Right, right, I sent that along
11	to Kelly Dreyer, and she got the DMDC to spit
12	out a dataset with that information, the
13	states and the number of Marines. The total
14	number of Marines was 119,401, so I'm not sure
15	where that came from exactly. I'd have to go
16	to
17	DR. RENNIX: That would have come from the
18	pay record of people currently getting paid as
19	retirees.
20	DR. BOVE: So I don't know what period. Do
21	you think that's current?
22	DR. RENNIX: I imagine, unless she asked for
23	records back to, 119,000 sounds about
24	DR. BOVE: Sounds about right, okay.
25	So that's what it is, and you'll see

1 on page five sort of the breakdown for the top 2 15 states, what the top 15 states are and the 3 top five states have the bulk of them. So 4 with that information we can then identify 5 states where it might be a good place to do a 6 study of cancer incidents using the cancer 7 registries in those states. So that's the 8 reason to do that, and we can talk more about 9 that as well. So that's what we got from 10 DMDC. So the only questions about the DMDC 11 data, and then in the afternoon we're going to 12 talk about the study ideas. 13 MS. DYER: I guess I have a question because 14 it seems like Kelly Dreyer's name keeps coming 15 up every time we turn around in all this 16 stuff, and I just wonder --17 MR. ENSMINGER: She's the project officer. 18 MS. DYER: Well, yeah, and what I'm 19 wondering is what else does she have that we 20 don't know she has that she's not going to 21 give us unless we know what question to ask to 22 get it? 23 DR. BOVE: I don't think she knows what is 24 necessary to do a study without us telling her 25 what is necessary. I mean, she's not an

epidemiologist so she has no training in doing studies. And so I don't think she knows what she has that is important for us. We have to, that's why we have to ask her.

MS. McCALL: What we need is data.

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6 **DR. BOVE:** Do you understand what I'm trying 7 to say? I mean, she wouldn't know either. 8 And some of this stuff she doesn't even know, 9 she probably doesn't even know she has, i.e., 10 she doesn't have direct access to it. She has 11 to go through intermediaries to get it. Like 12 DMDC, for example, she doesn't have control 13 over DMDC. She has to go through 14 intermediaries. The RUCs, it seems to me, she 15 probably had to, she went through 16 intermediaries as well. 17 MR. STALLARD: Let's hear from Denita and 18 then, Sandra, I think you had --19 MS. McCALL: No, she's been waiting longer. 20 MR. STALLARD: Okay, Sandra. 21 MS. BRIDGES: Just real quick, what about 22 the service people that were stationed there 23 and lived on the base in the barracks that 24 were honorably discharged for disability? 25 DR. BOVE: The ones who were active duty

1	from '75 to '85 and are under those codes,
2	they're in this database.
3	MS. BRIDGES: Discharged early
4	MR. BYRON: Medical discharge, honorable,
5	medical discharge.
6	DR. RENNIX: That would be a code in the
7	personnel file, the reason for separation.
8	DR. BOVE: Right, but they'd be part of this
9	200,000.
10	DR. RENNIX: Yeah, but you know, who was.
11	MR. BYRON: Wow, that'd be a good statistic
12	to know about how many were honorably
13	discharged for medical reasons and what
14	medical reasons. I mean, wouldn't it?
15	DR. RENNIX: I don't know what the code, I
16	know there's a code for the, what conditions
17	were you separated. I'm not sure you actually
18	put the medical Board results in there.
19	DR. BOVE: I don't think so.
20	DR. RENNIX: I know they don't as a matter
21	of fact.
22	DR. BOVE: I don't think so.
23	MS. BRIDGES: Social Security would have it.
24	MR. STALLARD: That's in the DMDC data?
25	DR. RENNIX: Before we start breaking it

down so, we would know who was medically retired.

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MS. BRIDGES: They get a disability check. DR. RENNIX: No, no, this is the code at time of separation. They're given a code. And then the only place to find out what they were discharged for would be to go to the Physical Exam Boards, Medical Exam Board records. Remember, all these databases are there for primary specific reasons, either to pay you or to track you in your career, and that's it.

13 DR. BOVE: That was the idea of CHAMPS at 14 the Naval Health Research Center was to 15 actually to create a new database that would 16 actually follow people and follow their 17 health, but that had to be set specially for 18 that purpose, right? 19 DR. RENNIX: Yes. 20 MR. STALLARD: We have five minutes before

21 lunch when we're going to stop.
22 DR. BOVE: The information on dependents -23 DR. RENNIX: The date on there is wrong.
24 DR. BOVE: Which one?

DR. RENNIX: On the dependents. It should

1	be September 1993.
2	MS. RUCKART: Okay.
3	DR. BOVE: Oh, yeah, right.
4	MS. DYER: From '93 on?
5	DR. BOVE: Right, I knew that. I don't know
6	why it's on there.
7	I don't think there's anything new
8	here. This was stuff we talked about before
9	at the last meeting. So we're really at the
10	end of what new information we have from these
11	datasets. So it might be a good place to
12	break.
13	MS. DYER: Well, wait a minute. You said
14	the VA doesn't have anything unless you want
15	to go back to hard copy records.
16	DR. BOVE: I'm trying to remember where that
17	came from. You got that out of the
18	transcript?
19	MS. RUCKART: Uh-huh, it's what was said at
20	the last meeting.
21	DR. BOVE: Someone said that at the last
22	meeting. I don't remember saying that.
23	MS. DYER: Why wouldn't we want to go back
24	to hard copy records?
25	DR. BOVE: I think the problem with the VA,

1 turn to the next page, page six. 2 MS. DYER: Fifteen to 20 percent use the VA 3 system? 4 DR. BOVE: That was the key thing, I think, 5 yeah. DR. RENNIX: What do you want to get from 6 7 the VA, Terry? What do you want to get from 8 the VA? 9 MS. DYER: I have to. I don't have any 10 health insurance. 11 DR. RENNIX: The process for tracking VA 12 records is there's a date where the VA took 13 over these archived records, right? Where so 14 before a date -- like I'm not sure exactly 15 what the date is -- they're kept at the 16 National Personnel Record Center. And then 17 after a certain date they went straight to the 18 VA archives, also in St. Louis. 19 And they would sit there until a 20 regional office requested the record. That could be for a medical reason or for an 21 educational benefit or for a loan. And then 22 23 that whole record gets packed up and sent to 24 that regional office and sits there. It'll 25 sit there for five years, since the last time

1	a person requested information, and then they
2	send it back to the National Archives.
3	So finding the records would be
4	difficult, but information inside the record
5	is hard copy. So the health record's in there
6	if they exist. When you go into the health
7	record, when you open up the folder, there
8	might be one piece of paper that says here's
9	your discharge physical. That's all that's in
10	there. For others there might be a whole
11	health record for the active duty person.
12	DR. BOVE: I think we felt that to identify
13	people the DMDC would be the key database and
14	our housing records would be the key database.
15	For looking for health outcomes the National
16	Death Index would still have to be a key
17	database. The cancer registries in the top
18	ten or so states would be a key database, and
19	then the Naval Health Research Center was a
20	long shot because I, myself, didn't think
21	there was going to be enough diseases in that
22	database.
23	But I wanted to rule it out first,
24	rule it in or out with some data, and I still
25	haven't gotten that. But that's how I was

thinking back then. The VA wouldn't be that
useful from the health side because of the low
participation rate and to identify people I
thought the DMDC would be a whole lot better.

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But we could talk about this later. I mean, I just don't have any update on those --

DR. RENNIX: If you decided to do a case control study of adults, then you can look at the Archives and the VA to see if there was any health information on those people.

DR. BOVE: What kind of outcomes would we --DR. RENNIX: The same kind of outcomes you'd find in any health record. You would find diagnosis outcomes. Again, it would be a hard record extraction. Again, it's a case control study, not a cohort study when you're trying to build a bigger, more powerful study.

DR. BOVE: Right, but with the cancer registries it would be a case control study, too, but there at least the data's accessible.

DR. RENNIX: It's already there.

DR. BOVE: Yeah, I don't know how you'd know you had all the cases or even what kind of sample it would be.

DR. RENNIX: It'd be a sample of sick

1 people. 2 DR. BOVE: No, no, wait, no --3 MS. RUCKART: How good a representation? 4 DR. BOVE: No, I mean, which boxes --5 DR. RENNIX: No, no, this is by social. DR. BOVE: Oh, okay, okay. 6 7 MR. STALLARD: When we return after lunch, 8 we're going to get into this dialogue, I 9 think, a little bit deeper because we've heard 10 references to things that we could do, 11 feasibility assessment, data that's available 12 or not. And after lunch we are really going 13 to nail down hopefully what are those things 14 that we can and will do. Is that right? 15 DR. BOVE: Yeah. 16 MR. STALLARD: Good. Then be back in one 17 hour from now. 18 (Whereupon, a lunch break was taken from 12:00 19 p.m. until 1:00 p.m.) 20 MR. STALLARD: We're going to resume now, 21 but first I need to make it a part of the 22 Thank you, Jerry, for providing us record. 23 water. He ran out and got a case for everyone 24 so please feel free to help yourself. 25 MS. MCCALL: But Chris provided the first

round.

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2 MR. STALLARD: We've gone over historically 3 what was done last meeting, talked about our 4 datasets. Now we're going to move into the 5 portion of the program talking about, I think, 6 what are we going to do, right? So I'll turn 7 it over to here to Frank. 8 DISCUSSION ABOUT FEASIBILITY ASSESSMENT 9 DR. BOVE: Well, and I'm going to turn it 10 over to everybody else, too. I want to go 11 over, this is where we're going to have a 12 discussion as to what we should do in terms of the next study. I think we were able to get 13 14 enough information from DMDC, not the Naval Health Research Center, but we have some 15 16 information now that we didn't have before. 17 And I think we can discuss whether, not 18 whether, what kind of study, what kind of 19 database. We can have that discussion now and 20 come to some decision. 21 And one other thing is that, yeah, actually, this might help. I haven't thought 22 23 about the structure for this part of the 24 discussion. I wanted to hand something out, 25 and I'll explain. Maybe that would be the

1 first thing I'll do, and then we should have 2 an open discussion about this stuff. You've 3 all heard about what we have, and we need to 4 come to some kind of conclusion today if we 5 can. 6 I think the first thing to remember is 7 we said that DMDC had identified about, I 8 think it was 190,000, 194,000, I forget the 9 exact number, close to 200,000 Marines who 10 were based at the base from '75 to '85. And I 11 was trying to figure out, well, if they're 12 alive today how old these people might be. So 13 I picked arbitrarily an age range of 35 to 54. 14 It fits two different age categories that national data is structured in. 15 16 MR. ENSMINGER: What years are you using? 17 DR. BOVE: And these are, there's '75-'85 18 Marines, right? And this is 1999 to, this is 19 the latest data. It's at the National Center 20 for Health Statistics on these mortality 21 rates. They're by 100,000. So if you 22 multiply these numbers by two that's roughly 23 how many cases of these diseases you'd find in 24 this 200,000. What'd I say? Yeah, expect in 25 this group of people.

1 So that's one piece of information. Ι 2 put on here a number of cancers. Some of 3 these cancers were seen in a study done at 4 Cape Cod looking at PCE in drinking water and 5 cancers that David Ozanoff and Ann Aschengrau 6 at Boston University conducted. They did a 7 couple of studies using the same water 8 database to look at a bunch of diseases and 9 cancers. And then there's the New Jersey 10 study I worked on which looked at non-11 Hodgkin's lymphoma and leukemias. And then there's the information from occupational 12 13 studies. 14 So I can't, there could be more 15 diseases on this list. There may be some 16 could go, but I just thought it would be good 17 to see some of these and get a sense of how 18 many cases you might expect out of 200,000 in 19 this kind of age range so we'd have something 20 to go by. 21 So then the next thing I handed out 22 are what we call power calculations, 23 statistical power calculations, the idea being 24 how strong a study it would be. If we wanted 25 to be sure that it had the capability of

seeing an excess, a twofold excess, for example. And that's the two up top in the column. What kind of statistical power you would get given how many cases of a particular disease you expect in the population. And in bold face are powers, you know, you'd like to get at least 80 percent power. My own preference is to have as strong as power as your confidence interval. It's sort of equivalent to saying that the two types of error that you have in the study are roughly equal. And so I like a 90 percent power, but 80 percent power is good, too. And so you could see that as you try to have the ability, when you try to detect smaller and smaller excesses, you need larger and larger numbers. That's basically the message here, but you can, I was hoping that that might be

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20 So the first page is a study where we 21 would, say, send these 200,000 names to the 22 National Death Index, see if they died and get 23 cause of death from the National Death Index. 24 Also, find out where they died if we wanted to 25 get the complete death certificate.

informative.

MS. RUCKART: I just want to say one thing. It's not just the 200,000 names. Because this data will come from DMDC we have more information like social security number or date of birth because the National Death Index would need to make sure we're talking about the same person if there are multiple people, David M. Miller or something, we need to have specific information. That's why it's coming from DMDC, not just other sources of data where it wouldn't have this key information.

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DR. BOVE: But anyway if we sent all that information -- I was going to talk about that later -- but all that information to the National Death Index and compare the disease rate we see in these 200,000, the mortality rate, with an external standard, in this case the national mortality rate, this is the table that you can, that is apropos for that kind of comparison.

21On the next page there's a situation22where we talk about internal comparison.23We're no longer comparing these 200,000 to24some kind of national rate, but we're trying25to look within these 200,000, assign exposures

1	to these 200,000. Some will be not exposed.
2	Some will have lower exposure, middle, high
3	exposure if we could do that, and this is an
4	internal comparison.
5	And what I was thinking was that most
6	of these 200,000 are probably exposed because
7	they either lived in bachelor housing or lived
8	in the family housing where they got
9	contaminated water. Now some weren't, but I
10	figured there'll be a lot more exposed than
11	unexposed.
12	So the chart I have here reflects
13	that. The first row says the unexposed are
14	equal to exposed. Now the only way that would
15	happen is if we included Camp Pendleton
16	Marines or some other group of people, other
17	group of Marines who weren't exposed into the
18	thing. If you just use these 200,000 though,
19	we'd probably be sort of in the second, third
20	or fourth row. The unexposed would be half
21	the size of the exposed or maybe even less, a
22	quarter of the size or even a tenth of the
23	size.
24	And again, you have the number of
25	diseased cases you'd expect in the unexposed

1 that would give you in the first box, 80 2 percent power and in the second box 90 percent power. So we could go over this stuff in more 3 4 detail, but I just wanted to put this out 5 there to orient us a little bit. And what you 6 see is that in either case you'd like to have, 7 in order to detect excesses of twofold at 8 least, you'd want to have at least ten cases 9 of a particular disease expected. 10 So if you look on the table for 11 mortality rates again, that would mean colon 12 cancer would be, there would be enough of 13 those, but rectal cancer would be difficult. 14 Liver cancer would also be difficult because 15 if you multiplied roughly three times two at 16 six expected cases, you'd have to see a much 17 bigger excess before you have any, I mean, the 18 capability of detecting small excesses is not 19 high basically is the way to put it, and so on 20 down the chart. 21 Of course, lung cancer and breast 22 cancer, well, breast cancer I'd have to work 23 that because that's only among females here 24 and of the 200,000 I don't know how many 25 females are in the 200,000, and that's true

1	for cervical cancer as well. So 200,000 is a
2	lot of people, but even so it's a group of
3	Marines who went into the Marine Corps healthy
4	and so I think this is pretty much what you
5	might expect.
6	Chris and Dick, how do you feel about
7	that? I mean is this -
8	DR. CLAPP: This chart looks right, and
9	actually, I would look at non-Hodgkin's
10	lymphoma and leukemias combined like you guys
11	did in New Jersey, and that actually meets the
12	expected number of ten.
13	DR. BOVE: We separated the two out, too, on
14	the New Jersey study.
15	DR. CLAPP: Well, okay, either way. So all
16	this says to me is that this, there would be
17	enough power to do this study. This justifies
18	it in my mind right off the bat.
19	MS. DYER: The breast cancer, that's only on
20	women? You didn't check for men?
21	DR. BOVE: The fatality rate for men
22	DR. RENNIX: The fatality rates for men is
23	one in a million. It's very, very low.
24	DR. BOVE: I don't think we'd expect a case.
25	DR. RENNIX: Oh, we do get cases.

1	DR. BOVE: Well, I mean, but
2	DR. RENNIX: But as far as the mortality
3	rate goes.
4	DR. BOVE:expect a case. A case could
5	happen at any time.
6	DR. RENNIX: When did women start coming in
7	the Marine Corps, '82?
8	MS. McCALL: Yeah, seriously, I was the
9	first Marine -
10	DR. BOVE: When were you there?
11	MS. McCALL: Nineteen Eighty-two.
12	MR. BYRON: I was in boot camp in '81, and
13	they were there.
14	MS. MCCALL: I was my recruiter's first
15	female Marine.
16	MR. ENSMINGER: We had WMs in the Marine
17	Corps, and whenever I came in the Marine
18	Corps, 1969.
19	MR. BYRON: Had them in '81, too.
20	DR. RENNIX: Just what? W what?
21	DR. BOVE: WMs, women Marines.
22	DR. RENNIX: And what were their jobs then?
23	MR. ENSMINGER: Supply, clerical.
24	MS. MCCALL: There was something about some
25	change in women Marine status in 1980

something.

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MR. BYRON: It was tactical versus administrative.

MR. ENSMINGER: But all the women that were in the Marine Corps back whenever I was in were all kept in a central location at ^; they had barracks for them. Yeah, concertina wire around the building. They had in the mornings if they were in school like over at Camp Johnson or Montford Point, they'd bus them over there every day, and bused them back every night. Took care of them little girls.

13DR. BOVE: Well, that's something we need14to, we'll find out when we get to see the15breakdown of these 200,000. This is, I guess,16the first order of business.

MR. BYRON: So this U.S. mortality rate is the average? That's what, that is -

DR. BOVE: For this age group, 35 to 54.

 20
 MR. STALLARD: Tom's trying to -- okay, hold

 21
 on.

MR. ENSMINGER: Wait a minute, Tom, we can't hear you. Chris is turning you up.

MR. TOWNSEND (by Telephone): Hey, Frank, what date did that data cover?

1 MS. RUCKART: Nineteen Ninety-nine to 2003 2 rates, Tom. 3 MR. TOWNSEND (by Telephone): The last '75? 4 MS. RUCKART: The rates that we're talking about are from 1999 to 2003, but the 200,000 5 Marines at Camp Lejeune is 1975 to 1985. 6 7 MS. BRIDGES: I think he wanted to know what 8 year you started. You said '75? He's asking 9 how early. 10 MR. TOWNSEND (by Telephone): Yeah, it looks 11 like it's going back to '58, computerize those 12 records. What about ^. You said 55 is an 13 average? 14 MR. STALLARD: We're having difficulty 15 hearing you through for some reason. 16 MS. BRIDGES: You're saying '75, and he 17 thinks it should go back further. 18 MR. ENSMINGER: Hey, Tom, we can't go back 19 further because the DMDC doesn't have this data. The only thing they've got data, 20 21 complete data on, is '75 through '85. That's 22 why we're using those dates. 23 MR. TOWNSEND (by Telephone): Well, there 24 are people ^. 25 MR. ENSMINGER: Oh, yeah, I realize that,

1	but for an average most of those people would
2	be between the years of, if they just came in
3	in '75, they'd be 35 to 54 or 55.
4	MR. TOWNSEND (by Telephone): We didn't have
5	WMs until 1949.
6	MR. ENSMINGER: Yeah, I know.
7	MR. BYRON: I graduated high school in 1975.
8	I'll be 50 at the end of the month.
9	MR. STALLARD: Tom, did that answer your
10	question?
11	MR. TOWNSEND (by Telephone): Yes, it did,
12	thank you.
13	MR. STALLARD: All right, continue on.
14	DR. BOVE: Following up on what Dick just
15	said you could, they also combine oftentimes
16	colon and rectal and it looks like the
17	mortality say they have liver failure, alcohol
18	related. And this is non-alcohol related.
19	And cirrhosis of the liver though is not
20	differentiated that way, but there's enough,
21	it looks like enough of a rate there. So just
22	looking at this, I admit this is kind of
23	crude, but, yeah, it is possible to study
	certainly some of these cancers and maybe
24	certaining some or enese cancers and maybe
24 25	possibly some of these other diseases. Now

1 this is mortality, remember, and so, you know, 2 the incidences are higher for these. And if 3 we want to, and I think we would probably want 4 to look at cancer incidences at some point. 5 But let's pursue this idea first, the National Death Index or the mortality study and the 6 7 200,000 or so that the DMDC can identify using 8 the RUCs. The next step I would think would 9 be to get some demographic breakdown on these 10 200,000, which I'm sure DMDC could do. Anyone 11 have an opinion on that? Good idea? Bad 12 idea? 13 DR. CLAPP: Well, males/females for sure. 14 We've got to do that. 15 DR. BOVE: Yeah, but what about age I'd like 16 to get, and what else can I get from the DMDC? 17 DR. RENNIX: Educational background at time 18 on entry. You can get zip code at time of 19 entry so you've got a socioeconomic look if 20 you want to do that. A pay record, you can 21 get their job. 22 DR. BOVE: So basically most of the data 23 that they have in their personnel file --24 DR. RENNIX: Is descriptive. 25 DR. BOVE: -- yeah, we could ask them for a

1	descriptive analysis of these
2	DR. RENNIX: Race.
3	DR. BOVE: Race, ethnicity.
4	All right, is everyone agreed that
5	that would be the next step? That I should
6	request from DMDC a
7	MR. BYRON: Yes.
8	MS. DYER: Yes.
9	MR. ENSMINGER: Let's go.
10	DR. BOVE: Okay? We're all in line on that
11	one?
12	MR. STALLARD: Assuming that you get the
13	information requested, what kind of timeframe
14	are you looking at that it would take to do
15	this?
16	DR. BOVE: Well, I'll e-mail, next week I'll
17	write this up and ask them, make a formal
18	request that, how long it
19	DR. RENNIX: I would suggest that you
20	coordinate this with the Marine Corps DMDC rep
21	because he will be the one that will go and
22	ping the analysts that are doing your study,
23	keep it moving.
24	DR. BOVE: Who is that?
25	DR. RENNIX: ^ there. He's a Lt. Colonel.

1 He met with us at DMDC. 2 DR. BOVE: Yeah, I don't remember his name. 3 DR. RENNIX: I do. I'll give it to you. I 4 have his name here. 5 MR. ENSMINGER: Please, when you request 6 this stuff, do it in a formal letter. 7 MS. McCALL: And fax it. DR. RENNIX: What will happen is that he 8 9 will take that to task and find out who the 10 analyst is and just keep pinging on them. Ιf 11 there's no pinging on it, it just gets put in 12 a queue with all the other requests, and they 13 get to it when they get to it. 14 MR. STALLARD: Okay, so that's where that 15 top level support comes from that we referred 16 to earlier. 17 DR. BOVE: Can you e-mail me his name? 18 DR. CLAPP: I think it was Carboni, wasn't 19 it? It was an Italian name I'm sure. I think 20 I'm pretty sure it was Carboni. 21 DR. BOVE: Well, if you can't find it in 22 your notes, is that something that the Marine 23 Corps could e-mail to me? 24 DR. RENNIX: Yes. 25 DR. BOVE: And then we'll write a formal

1 letter to that person. Does that make sense? 2 And we'll make that request. 3 MR. ENSMINGER: Now you just doing the 4 mortality or are you doing the cancer and 5 mortality at the same time? 6 DR. BOVE: Right now we're talking about 7 mortality from various diseases, the cancers 8 here, some of the cancers here, and it looks 9 like we could do some of the liver. 10 MR. ENSMINGER: Renal. 11 DR. BOVE: Well, the renal stuff, the end-12 stage renal is kind of rare and other kidney 13 failures. If you put them together, you have 14 about three, it's not like I'm saying we can't 15 do it. The power is not as high. We could 16 look at all these with the understanding that 17 some will have better statistical power and 18 some we won't. That's all, and do them 19 anyway. 20 DR. CLAPP: That's the way to go. 21 DR. BOVE: So this wasn't to preclude 22 anything. It was just to give you a sense of 23 24 MS. RUCKART: Terry has a question. 25 MS. DYER: Do you think about like the

1	heart, is that going to be
2	DR. BOVE: We could. I didn't -
3	DR. RENNIX: COPD.
4	DR. CLAPP: They're not related to these
5	exposures, but
6	DR. BOVE: That's what I'm trying to think.
7	What I will do is go, and this would be nice
8	if the NAS had been impaneled and done the
9	analysis of all the previous studies of
10	perchloroethylene, it would be good to know
11	that. I mean, TCE, I have a better sense of
12	what, of the occupational literatures and then
13	perchloroethylene which most of these studies
14	have been of dry cleaners. And I can go back
15	over that literature and see what particular -
16	_
17	MS. DYER: I remember David Ozanoff, that
18	was one of the things that he specifically
19	said was that these chemicals cause like
20	sudden death heart attacks. So that's what he
21	said.
22	DR. BOVE: I'll talk to Dave, too.
23	DR. CLAPP: I saw him yesterday. I'll see
24	him Monday.
25	DR. BOVE: Yeah, ask him.

1 DR. CLAPP: Yeah. 2 DR. BOVE: I'll look through the literature. 3 That's one of the things I ought to do. 4 Again, it would be nice if NAS had done this 5 for me, but I'll do it. 6 DR. RENNIX: I know that it's like freons 7 how they --8 DR. CLAPP: Had a big exposure right in your 9 face, yeah, that kind of thing. 10 DR. RENNIX: Yeah, a sudden coronary attack. 11 DR. BOVE: Yeah, but that's not the kind of 12 exposure we're talking about here. But let me look. Let me look and see what the 13 14 occupational literature is at least for 15 perchloroethylene. The studies done at Cape 16 Code didn't look at, they only looked at 17 cancers. 18 DR. RENNIX: Plus, Frank, you can do an all 19 causes mortality, just to see if the 20 compilations are different. That's also a 21 possibility. 22 DR. BOVE: Sure. 23 MS. DYER: What about women's problems as 24 far as I thought that there was a lot more 25 information on miscarriages and female

disorders. We had that doctor that, the female doctor that was here, and that's something we see so much of. And when we spoke to her, that's one of the things that she mentioned was that it's just really high with miscarriages, female problems, miscarriages.

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MR. STALLARD: That would be in the National Death Index data which is, and we're going to talk about that.

DR. BOVE: No, but we're talking about mortality now. If we have time later, we'll talk about cancer. And if we have time beyond that, then let's talk about other diseases and what we could do to move that just to see what the feasibility is. Well, at least to see what the possibilities are. MR. STALLARD: Let me just, so that I'm

18MR. STALLARD: Let me just, so that I'm19keeping up here with, as this thing evolves.20We're all in sync. It appears that this is21feasible and doable, providing you are given22the data that you are going to request,23correct? And that once you receive that the24study is really a comparison of the data. And25so that's done in-house by ATSDR. Is that

correct? Once you get that information in and --

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DR. BOVE: Well, we have to write a protocol. We have to go through our IRB and OMB to actually conduct the study. There's several steps. I'm still at the level of let's see what the data is like. And the demographic data on the 200,000 will tell me more about what the study would look like so I could write a protocol. I can't write a protocol at this

point. Any protocol I'd write could be easily criticized, wouldn't get through our IRB without a lot more information because our IRB doesn't just rule on, one of the things they look at is a burden on human subjects. And if your study is not well crafted, that's a burden. They won't let your study through, won't let your study through until the study, they're confident that the study is well crafted and can be carried out. So this is part of what we're doing

here is gaining the information so that we can write the protocol and start the process of getting the clearances for the protocol,

1 getting all the OMB and IRB a sign off so that 2 we can do the, actually send the data to 3 National Death Index. So there are still some 4 steps after we do this. 5 MR. MARTIN: What timeframe are we talking 6 with all these approvals? 7 MS. RUCKART: Six to nine months. But we 8 wouldn't need OMB if we're not asking 9 questions, right? 10 **DR. BOVE:** I don't think so. I don't think 11 I think unless we're asking questions, we so. 12 don't have to worry about OMB I'm pretty sure, 13 but rules change over time. But the IRB is, 14 you still have to have a decent protocol for 15 our IRB to approve a study. 16 MS. RUCKART: You're missing one piece 17 though, peer review. If we wrote a protocol, 18 it needs to be peer reviewed, and peer review, 19 that's external reviewers to the agency review 20 it, usually three. And that has to happen 21 before IRB. So the IRB is maybe three months, 22 and then it's three months for peer review. 23 So I'd say a minimum of six months. 24 And then if we needed OMB, then it 25 would be even longer, but if we don't, we're

1 talking about a minimum of six months. But 2 that's given that once that starts, the six 3 months, we're talking that all the internal 4 things have already happened, like it's 5 written, and it's been reviewed by management 6 here. So it's probably really more like nine 7 months. If we were to start tomorrow, nine 8 months from then. Six months for the official 9 10 MR. MARTIN: So that's what we're talking 11 about. Okay, so and when that nine months is 12 completed, we're going to send all the information, and how long will that process 13 14 take? 15 DR. BOVE: I can't tell you. I don't know. 16 MR. MARTIN: Ballpark. 17 DR. BOVE: That's a lot for NCHS to deal 18 with, but I don't know. I can't even give you 19 a ballpark. 20 Dick, do you have any, I mean, when 21 you do mortality studies, it takes a couple 22 years. 23 DR. CLAPP: Yes, I was going to say six to 24 nine months, just to keep in the spirit here. 25 DR. BOVE: Six to nine months to get the

1 data back, and then to write it up is another 2 couple months. So the ballpark would be at 3 least a year after, but the good news is we've 4 got the exposure side all set, and so it would 5 just be, nine months, six months to get all 6 the clearances, six to nine months, and then 7 another year. 8 MR. ENSMINGER: How do you figure you have 9 the exposure side all set? 10 MS. RUCKART: At that point it'll be done 11 because Morris' water modeling will be done. 12 **MR. ENSMINGER:** Okay, well, you're thinking 13 down the road. 14 DR. BOVE: Well, good point because if we 15 need, if we all feel that we have to pinpoint, 16 link the RUC to a particular spot on base, 17 then we won't have the exposure assessment 18 done until that's done. So that's another 19 thing to think about. Is that necessary? 20 Could we use the data we get from DMDC? 21 If they're at the barracks, we know 22 they were exposed to Hadnot Point. If they're 23 in family housing, we have family housing records, and we'd be able to see where they 24 25 were, whether they were in exposed family

1	housing or unexposed family housing. Or do we
2	need to have the RUCs pinpointed to a
3	particular spot on base?
4	Chris, do you have any ideas on that
5	one?
6	DR. RENNIX: I think that you're going to
7	have a hard time matching exposures on this.
8	DR. BOVE: You think so?
9	DR. RENNIX: Yes, because it sounds like for
10	your housing records you don't have a lot of
11	housing records for 200,000.
12	MR. ENSMINGER: We're not talking about
13	housing records. These are active duty
14	people.
15	DR. BOVE: We have family housing records,
16	right? We have, so if we match the 200,000 to
17	our family housing records, we don't have
18	match there in the barracks.
19	MS. RUCKART: Or they're missing.
20	DR. RENNIX: I don't know. Are our people
21	allowed to live off base?
22	MR. ENSMINGER: Back then you had to have
23	DR. RENNIX: I'm just asking. I don't know
24	your percentages.
25	DR. BOVE: And is there any indication from

1 the personnel file whether they lived on or 2 off base? Remember we talked about this? 3 DR. RENNIX: In the pay record it would. 4 They have pay records there would tell if they 5 got rations to be --MR. ENSMINGER: You had to have a special 6 BAQ authorization from the Commanding Officer, 7 8 at least a battalion commander for anybody 9 that was a sergeant or below to live off base, 10 and I'll tell you right now in my unit none of 11 my troops --12 DR. RENNIX: So the married guys were 13 guaranteed on base housing? 14 MS. BRIDGES: If they wanted it. 15 DR. RENNIX: No, so they could live in town. 16 MR. ENSMINGER: Married people, yes. But 17 I'm talking about the bulk of these troops 18 that we're talking about lived in the 19 barracks. 20 DR. BOVE: Right, and the comparison of --21 DR. RENNIX: That's what I'm saying. Ιf 22 you're going to try to assign exposure to each 23 person, you're going to have to have a little 24 bit more detail about where they lived, not 25 just that they lived in housing or they lived

1	in the barracks and that's the given.
2	MR. ENSMINGER: And another thing is they
3	came to work every day.
4	DR. RENNIX: That's another level of
5	exposure. Well, then everybody has exposure
6	then, so that'd be kind of hard to say if it
7	was different.
8	DR. CLAPP: They're exposed to Camp Lejeune.
9	I think that's the point of this study.
10	DR. BOVE: Let me take a step back so we're
11	all on the same page. The first cut is to
12	take these 200,000, assume they're all
13	exposed, right? Assume they're all exposed.
14	Send it to the National Death Index, compare
15	them to an external rate, which is the
16	national rate, and see if they're different,
17	right?
18	Now if you want to get better than
19	that and wanted to assign people exposures,
20	then we need more information. And one idea
21	was, again, to use the RUCs to try and figure
22	out where they were stationed on base.
23	Another approach is to look at their pay
24	record to see if they were all from one base.
25	That's another approach to look at ways to

1 define exposure. Another way is to link these 2 names with our family housing records. Ιf 3 they link, we know where they were. 4 Any other ideas on this on how we 5 could maybe assign exposures? Inpatient records. 6 MS. BRIDGES: Mr. Rennix 7 said that they have those on the base at the 8 hospital. 9 DR. RENNIX: No, no, they're in the 10 Archives. We can request them. But that's at a hand extraction of that information from a 11 record to a database. We're talking about 12 13 200,000 people. 14 MS. BRIDGES: But they keep the hospital 15 records separate, the inpatient. 16 DR. RENNIX: I'm talking about inpatients. 17 So I'd have to go and pull every single 18 record, read the social --19 MS. BRIDGES: How many people have been in 20 the hospital compared to how many people at 21 base housing? 22 DR. RENNIX: Well, I have no idea, I mean, ^ 23 have probably --24 MS. BRIDGES: Children, how many children --25 DR. RENNIX: What about the adults, just

1	adults?
2	MS. BRIDGES: Right, but children are less
3	likely to get sick and require
4	hospitalization.
5	DR. RENNIX: This is an adult study. Now I
6	have 200,000 people, 200,000 Marines
7	DR. BOVE: Who were active duty between
8	'75 and '85.
9	MS. BRIDGES: Or they were admitted into the
10	hospital.
11	DR. RENNIX: No, this is
12	DR. BOVE: Nothing to do with the hospital.
13	DR. RENNIX: 200,000 people that were
14	stationed at Camp Lejeune.
15	MR. STALLARD: Wait, wait a minute. But
16	Frank said any other ideas. Sandra said,
17	well, maybe some of those were inpatients even
18	though they were active duty military. So
19	it's an idea that's been put forth.
20	Dr. Clapp, you had something.
21	DR. CLAPP: Another one was just duration of
22	time in Camp Lejeune. We can use that as a
23	surrogate.
24	DR. BOVE: Oh, yeah, as an exposure
25	measurement of exposure. Right.

1	DR. CLAPP: Long duration versus short
2	duration.
3	DR. BOVE: And we would be asking in the
4	demographic information
5	DR. RENNIX: It could be done. It's a
6	little more intensive, but you have to have
7	the date that they got there, and the date
8	that they left. What it is is every before
9	1990 they did an every year census of where
10	you worked. So you could assume for that year
11	they were at Camp Lejeune, and then if they
12	weren't on that census so, but after that it's
13	every month. So you could have a stop and
14	start date. So there'd be some assumptions
15	there. We don't have exact dates of arrival
16	and exact dates of departure.
17	MS. RUCKART: Chris, what years did you say
18	that the monthly
19	DR. RENNIX: I think it started around 1990,
20	went to monthly.
21	DR. CLAPP: But even the yearly, it's there
22	on tape? It's part of the
23	DR. RENNIX: It's part of the database, yes,
24	personnel records.
25	DR. CLAPP: So you could just assign for

1	each year.
2	DR. RENNIX: Yes.
3	DR. BOVE: Wasn't it quarterly by '75?
4	DR. RENNIX: It's transition for that. I
5	know about 1990 it was monthly.
6	DR. BOVE: Monthly, I think it was either
7	every six months or quarterly sometime in the
8	I have a book, didn't bring the book with
9	me.
10	DR. CLAPP: Your bible. Didn't bring your
11	bible.
12	DR. BOVE: Didn't bring the book, yeah. I
13	can't remember. That's easily found, I'll
14	just open the book when I get back.
15	MR. STALLARD: So are we still talking about
16	those, was it '75 to '85?
17	DR. BOVE: Yeah, we're trying to figure out
18	whether we can determine the length of time on
19	base, right? Now what you'll get, if they
20	move around, their RUC changes, doesn't it?
21	DR. RENNIX: Yes.
22	DR. BOVE: Right, but basically what you're
23	asking for, Dick, I think is to set up a
24	cohort somehow and
25	DR. CLAPP: Yes, stratify, the long-termers

versus the short-termers.

2 MS. McCALL: Well, I had an idea at the last 3 meeting. They have support training schools 4 there. I mean, there's all three exposures. 5 There's the people, the personnel who taught 6 the classes who stayed there the whole time. 7 There's the Marines that came in and out for, 8 you know, school, for six weeks school, for 12 9 weeks schools, for this amount of time. And 10 then there were also civilians that worked 11 there at the training schools. And it's a 12 small enough group, I mean, I know you keep saying we don't have to study everybody, but -13 14 15 DR. BOVE: -- How will we find these people? 16 MS. McCALL: I don't know. 17 DR. BOVE: Okay, well, I wanted to focus 18 first on these 200,000 and figure out all the 19 things we need to do with these 200,000, and 20 then move on from there so we can wipe one 21 thing out and get through one thing at a time. 22 MR. STALLARD: So we can say --23 DR. BOVE: I think that's a good suggestion, 24 look at duration of exposure. I just have to 25 figure out how you do it.

1 DR. RENNIX: Frank, you can prove the power 2 because after 1972 they had 100 percent of 3 their records for all civilians, too, low PM. 4 So you could include the civilians in this. 5 DR. BOVE: Now, would they have, what code would they, I mean how would DMDC identify 6 7 them? 8 DR. RENNIX: That's by where they were paid. 9 Same thing, they're paid by a UIC[^] or RUC 10 they're attached to. 11 DR. BOVE: Okay, so that's another request 12 of DMDC is to --13 DR. RENNIX: No, this is OPM runs that one. 14 MS. DYER: And then there's social security 15 numbers, right? That's how they knew where we 16 lived. 17 DR. RENNIX: Yeah, OPM owns that database, Office of Personnel Management. And they said 18 19 after 1972 they had 100 percent of the 20 workforce, and they could tell you who worked 21 where. So if we're looking for increasing the power, a lot of civilians, there's a number 22 23 that have a long-term exposure that might be a 24 little bit more valuable than these shorter-25 term exposures that the military were there.

1	DR. BOVE: And they're in there by an RUC
2	code.
3	MS. DYER: UIC is it?
4	DR. RENNIX: UIC or RUC, yeah, the same
5	five-digit code that's used by different ^
6	services. I got the name of the woman who's
7	the point of contact at OPM, Rhonda Diaz.
8	MS. RUCKART: What is it? Rhonda?
9	DR. RENNIX: Rhonda Diaz.
10	DR. BOVE: Now the OPM data is where?
11	DR. RENNIX: D.C. Now, DMDC may have it,
12	but you have to get OPM's permission to access
13	it.
14	MR. ENSMINGER: We had a bunch of Navy, a
15	lot of sailors at Second Med Battalion, too.
16	DR. RENNIX: They would be under the Army, I
17	mean the Marine Corps. They have Marine Corps
18	orders. When they're in the hospital, they're
19	under Navy orders. They would be ^. So that
20	Marine Corps number you have, you may want to
21	supplement it with the Navy personnel with the
22	same RUCs and the same UIC for the hospital.
23	DR. BOVE: And that's through OPM or
24	DR. RENNIX: No, that's DMDC.
25	DR. BOVE: DMDC, yeah, right, we've already

1 talked about wanting to do that. 2 MS. DYER: I don't have any abbreviations, 3 but I do have a question. 4 DR. BOVE: I won't understand you then if 5 you don't have any abbreviations. 6 MS. DYER: So the civilian personnel, going 7 back again to the Lejeune alumni, they have a 8 database where they stay in touch with the 9 civilians that were teachers, principals, 10 workers in the cafeterias, all of those, and 11 they've kept up with them over the years. 12 Boy, they know when somebody dies because it 13 goes right on there. And so that is a source 14 of information for these civilian personnel. 15 MR. ENSMINGER: What we're talking about 16 right now, Terry, is just doing a feasibility 17 study to see if, identify a problem. This 18 isn't a detailed study yet. This is just, 19 hey, was there a problem there. 20 MS. DYER: But they were talking about 21 civilian trying to get information. 22 **DR. RENNIX:** No, trying to get civilian data 23 that says that they worked on the space from 24 this point to this point so they can be part 25 of this mortality study.

1 DR. BOVE: And what I was trying to say is 2 can you get the same data that Terry's talking 3 about from there for this period in time? 4 DR. RENNIX: It would be in there. 5 DR. BOVE: It would be in there, yeah. 6 That's what I thought. 7 DR. RENNIX: If they're paid by the 8 government, they would be in the OPM database. 9 That's what I was asking. MS. DYER: 10 DR. BOVE: The only issue, Terry, might be 11 that we, maybe the alumni have people even 12 further back than is computerized, but we 13 would get a lot of people through the 14 computerized database. 15 MS. DYER: 'Forties. 16 DR. BOVE: Yeah, see, I don't think, we wouldn't get that --17 18 DR. RENNIX: ^ able to case control, and you 19 would need to know individuals and to contact 20 them for the study, but right now I'm just 21 trying to get a who died from what and look to 22 see where they worked and how much they were 23 exposed. 24 DR. BOVE: Right, and so we wouldn't get all 25 the civilians maybe that the alumni would

1	know, but we would have a sizable group that
2	would make the study work.
3	MR. STALLARD: In addition to those military
4	personnel who were stationed there or
5	transited through there. And OPM and the
6	Records Center, which used to be in St. Louis
7	or still is or whatever.
8	MR. MARTIN: Will this information provide
9	enough information to possibly use these
10	200,000 people as a contact group, a
11	notification group?
12	MR. STALLARD: No, they're dead. This is
13	the National
14	DR. RENNIX: These are all the people who
15	ever worked there between those dates.
16	DR. BOVE: Very few would probably be dead.
17	MR. BYRON: Well, we hope.
18	DR. BOVE: We hope. We do hope. Most of
19	them will be alive.
20	MR. MARTIN: I mean, is there any way to tie
21	that to current address or will it provide
22	DR. BOVE: Well, one of the things, in order
23	to, and Perri mentioned this earlier, and I
24	was going to bring it up again, is that for
25	the National Death Index you want the social

1 security number is ideal and if not, the name 2 and date of birth. So with any of that 3 information, social security number, name and 4 date of birth you could probably go to 5 LexisNexis or some other locator service and 6 probably I'd get the, you know, many of them, 7 their current address. I mean, that's what we 8 did for the survey for that matter. And so 9 it's possible to do that. Whether we would do 10 that or some other entity --11 MR. MARTIN: I think the Marine Corps's been 12 ordered to do that. 13 **DR. BOVE:** -- but that's their thing. But 14 with this information we can go, for our 15 purposes, we can go to the National Death 16 Index with this information and do a, I think 17 a pretty credible study. And the more we can 18 identify who was exposed, when and where, the 19 better, but we could do a study even just 20 assuming that all exposed and comparing them 21 to a national data. Think of like the 1998 22 study when Nancy Sonnenfeld did that, she had 23 exposed and unexposed. For this current study 24 we have levels. I mean, it's better, as you 25 refine the exposure the study's better, but we

1	can do quite a bit with what we have right
2	here.
3	MR. ENSMINGER: Nancy Sonnenfeld thought she
4	had exposure
5	DR. BOVE: I know, but we're re-analyzing
6	that study
7	MR. MARTIN: This is something we just could
8	suggest as a list of 200,000 people that they
9	could possibly use this information as far as
10	their notification.
11	DR. BOVE: Right, but what about the people
12	at 475, they somehow
13	MR. MARTIN: I mean, this is a starting
14	point.
15	MS. McCALL: Mass media.
16	DR. BOVE: That's off the
17	MR. MARTIN: And I really think, you know,
18	once 200,000 people are notified, then it's
19	going to be, a lot of it's going to be word of
20	mouth.
21	MR. ENSMINGER: They're not getting
22	notified.
23	MR. MARTIN: Why aren't they?
24	MS. DYER: They won't get notified.
25	MR. ENSMINGER: This doesn't have any

1 notification --2 MR. BYRON: Hold on here, men. The question 3 I think Dave is posing to us is if we do this 4 analysis of the death rate and cancer rate of 5 200,000 people who served at Camp Lejeune, and we find it's increased, that's when we can 6 push for notification of all of the Marines 7 8 that were at Camp Lejeune. 9 MR. ENSMINGER: No, this is where we need to 10 push for a full-blown study. 11 MR. BYRON: Well, a full-blown study but 12 you've got to notify people before you can do 13 a study. But you need to notify everybody 14 that was at Camp Lejeune because it's not a 15 matter of were you exposed. It's what was the 16 level. 17 DR. BOVE: If I can break in, this is a strategy for a study. A strategy for 18 19 notification may look different. And so I 20 don't want to get into that. To me, ATSDR 21 cannot do a full-blown notification --22 MS. DYER: Nor should you have to. 23 DR. BOVE: -- some other entity should do 24 that. That's all I want to say. 25 Is there anything, Chris, Dick,

1 anything more on this? Help me out here. 2 DR. CLAPP: Well, I think, again, this is 3 the first step if we do this mortality linkage 4 study. And then if there are things like, for 5 example, non-Hodgkin's lymphoma's really 6 elevated in this group, then you go to the 7 states where people have retired to and do a 8 case control study of that cancer. And that, 9 I think, is where you bring in all of the 10 exposure information you can get. 11 DR. BOVE: Chris, do you have anything you 12 want to say? 13 DR. RENNIX: I think you've got to exhaust 14 the mortality as much as possible before you 15 start doing little studies because you don't 16 want to waste your time. You want to be able 17 to target those as best you can. We're 18 wasting a lot of time as it is. 19 DR. BOVE: Okay, so anything more we need to 20 think about it or do for this mortality study 21 in terms of getting information? Is there 22 anything, any more ideas out there, Chris or 23 Dick or any of you? 24 MS. RUCKART: Frank, would we also want to 25 use information from DoD EA to feed into the

1	population for the mortality study because
2	they might have the name and date of birth?
3	DR. RENNIX: For the family members, not
4	active duty?
5	MS. RUCKART: Would we consider doing that?
6	I mean obviously, there's too many
7	DR. BOVE: My hesitancy is that I don't know
8	what we have here. I have yet to go down
9	there to look at the reels. I don't know what
10	we've got. I'm not convinced that they know
11	the condition of all the reels either. And so
12	
13	DR. RENNIX: I talked to a woman there, and
14	she, when I told her the dates, she said
15	there's almost no way to get, consistently get
16	information now. That it's really, really hit
17	or miss. And she said, you know, they've
18	taken some out, and they just crumpled in
19	their hands.
20	DR. BOVE: Right, they e-mailed us some, and
21	you could see some you couldn't see anything.
22	I mean, it was just a
23	MR. BYRON: They've interpreted the Dead Sea
24	Scrolls, okay? So I think we can extract the
25	information if we really needed to.

DR. BOVE: No, I think they were in better shape.

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DR. RENNIX: You know if you're looking for something that you can turn around relatively quickly, so you go with the data you have. If you want to go and do case controls, yes, and then you explore these individual databases to get a value out of them, but not this big study.

DR. BOVE: Anything --

DR. CLAPP: One other thought was about the NIOSH Life Table Analysis method. Instead of using U.S. mortality rates, use the NIOSH workers' mortality rates to try to grapple with this sort of health to veterans effect.

MR. BYRON: Is that occupational --

DR. CLAPP: It's a group of people who are assembled because they are working, and then what are their death rates.

MR. BYRON: Healthy enough to work.

DR. BOVE: Yes.

DR. CLAPP: And then you can compare those to other workers who worked in some factory where they were handling horrible stuff and see if those workers had higher death rate

1	than the normal workers. Let's put it that
2	way. So I think that might be actually a
3	better, I mean, to me the best comparison
4	would be Camp Pendleton. I just don't know
5	how much of a pain in the neck that would be
6	to try to
7	DR. RENNIX: Well, no, it's not actually
8	Camp Pendleton. It's any Marine who didn't
9	serve at Camp Lejeune.
10	DR. BOVE: That's right, and it's not clear
11	to me that that would be that much more of a
12	pain in the neck.
13	DR. RENNIX: ^ Marine.
14	DR. BOVE: Right, and it's just a lot more
15	that the NDI, National Death Index, would have
16	to do. And the cost, there's a cost, because
17	every record they look up there's a charge.
18	It's not a cheap study. Well, it is and it
19	isn't, but we could pursue that, too.
20	MS. MCCALL: Aren't most of the bases
21	contaminated anyway?
22	MS. DYER: Yeah.
23	MS. MCCALL: You've got to find a base
24	that's not contaminated.
25	DR. BOVE: Well, maybe it's not worth doing

1	that then. Why don't we explore that?
2	MR. BYRON: It's worth doing. It's not
3	worth doing if you know you've got a
4	population that's exposed is what she's
5	saying. Pendleton, I believe, is on the Super
6	Fund list, so why would we go there?
7	DR. BOVE: Well, the question
8	MR. BYRON: It might skew the data, right?
9	DR. BOVE: The question is whether their
10	drinking water was contaminated and with what.
11	And if it isn't contaminated
12	MR. BYRON: As long as the drinking water's
13	not contaminated we got a group, right? Does
14	it matter whether they were even in the
15	service?
16	DR. RENNIX: That's exposure.
17	DR. CLAPP: Well, the thing about the
18	Marines, you have to get through a physical to
19	get into the Marines.
20	MR. BYRON: Yeah, so you know what their
21	status is.
22	DR. CLAPP: It's nice to be able to compare
23	like with like.
24	DR. BOVE: The idea here is that with the
25	general population they're not as healthy so

1	they'll have a higher disease rate. So in a
2	sense you're making it more difficult to see
3	an effect because the Marines are healthier.
4	But another healthy population, as Dick was
5	saying, is the workforce.
6	Now the workforce has to be relatively
7	unexposed, and that's another issue. So this
8	is the difficulty. The best thing to do is an
9	internal analysis where you're comparing
10	Marine to Marine and the only difference
11	between the two of them is whether they got
12	contaminated drinking water or not. That
13	would be the ideal situation.
14	And it's possible at Camp Lejeune if
15	we can identify people who were in family
16	housing that, and Holcomb Boulevard after '72,
17	they weren't exposed. But of course, they
18	were exposed if they wandered around the base
19	and drank water elsewhere. There's never a
20	perfect study.
21	MR. BYRON: Well, we're all exposed in one
22	degree or another.
23	DR. BOVE: Right, so that's why you have to
24	take all that into account that the studies,
25	that's why it's difficult to see an effect

1	with epidemiologic studies that they are a
2	relative crude tool because we have this
3	problem. A good comparison would be people
4	unexposed, really unexposed, and the people
5	who were exposed.
6	And sometimes you can't get that clean
7	a comparison because the unexposed are exposed
8	to other things that might increase their
9	disease rate, and you'd have to be able to
10	have some way of taking that into account.
11	And if you don't have good information on
12	that, you can't take it into account.
13	Jeff?
14	DR. FISHER: Oh, I was thinking about a
15	tumor suppressor gene, Von Hippel-Lindau tumor
16	suppressor gene, with the kidney tumors.
17	Probably there's no data like that available
18	or you couldn't get it.
19	DR. BOVE: Other than a special study, I
20	don't think so.
21	Dick, do you know a cancer registry
22	for kidney cancer? But they wouldn't have
23	that information in it.
24	DR. CLAPP: No.
25	DR. BOVE: That would be a special study.

1 You have cases of kidney cancer, and you'd 2 work them up. I don't think we can do it any 3 other way. 4 So the suggestions, to summarize this 5 and then so we can move on to the next topic 6 is that we have 200,000. We can add civilians 7 to that list. And that list is available at 8 OPM, so you need to go through Rhonda Diaz or 9 whoever, and get access to that. 10 From the DMDC we still need to get 11 them to look at the RUC or UICs for the Navy 12 personnel that were on base. And then get 13 descriptive information from the data they 14 have on each of those persons in that 200,000 15 plus. And I have to do another lit review to 16 make sure we look at all the causes of death 17 it makes sense to look at including any 18 additions to this list. 19 And then Dick's suggestion to check 20 with the NIOSH system to see if we could use 21 that. 22 MS. RUCKART: That might give us different 23 numbers, and then we'd look at different ^ 24 code. 25 DR. BOVE: That would give us different

1 numbers, but you know, these numbers are crude 2 enough as it is. I would pick 35 to 54. It's 3 not clear if that is the right age groups 4 anyway. Yeah, it would be lower. It would be 5 lower. 6 DR. FISHER: With occupationally exposed 7 people with solvents, it was mentioned that 8 cardiac arrhythmias and their, I don't if 9 that's, if you run into it, but there are 10 several case studies where people died going 11 into confined spaces. And so they would have 12 died from exposure to perchloroethylene or trichloroethylene or solvents. It would have 13 14 been documented, but that's guite different 15 exposure. 16 DR. BOVE: Right, but there are occupational 17 studies that probably looked at all cause -- I 18 mean, I know there are. I just haven't had a 19 chance to look at them lately. The dry 20 cleaner studies where there's charts and 21 charts of all the different causes of death 22 that were evaluated. So I need to go through 23 that. Again, this is something I expect NAS 24 to do, too. It'd be nice if they --25 DR. FISHER: Uterine cancer for women in dry

1	cleaners is one end point that
2	DR. BOVE: And cervical was found at Cape
3	Cod I think, too, and breast cancer. Where'd
4	I see cervical? Maybe not Cape Cod. We've
5	done some preliminary lit review stuff
6	already, but, yeah, we need to do that.
7	DR. FISHER: One more thing, Frank,
8	MS. McCALL: What about thyroid cancer?
9	DR. BOVE: Mortality from thyroid cancer is
10	not that high. We could look at that. I
11	don't know of PCE and TCE associated with
12	thyroid cancer. Iodine-131 at Hanford, yes,
13	maybe, but not TCE or PCE.
14	MS. MCCALL: That's from radiation.
15	DR. BOVE: Yeah, right. I'll do a lit
16	review and I'll see
17	DR. FISHER: So there's several groups. I'm
18	working with some of them. I'm doing research
19	with perchloroethylene working with state-of-
20	the-art, and they've collected a lot of
21	datasets. I've also worked with NIOSH in
22	Cincinnati, dry cleaners, some epi people, and
23	analytical.
24	And several federal agencies are
25	reviewing perchloroethylene right now, and

1	looking at cancer end points and
2	trichloroethylene is still under review by
3	EPA, and I'm not sure where they're going with
4	it. I haven't heard for a long time.
5	MR. ENSMINGER: They're sitting on it.
6	DR. FISHER: So you might be able to get
7	some help from some of the, like New York
8	state folks and even some US EPA people. And
9	they've had contractors do extensive
10	literature searches. And they've compiled a
11	lot of this information, more current
12	information.
13	DR. BOVE: Do you have some contacts of who
14	in New York state?
15	DR. FISHER: Janet Storm.
16	DR. BOVE: Right, we'll follow up on that
17	because, yeah, New York state's been involved
18	also with the TCE work ^ Gas, the Endicott
19	situation
20	DR. FISHER: Endicott, yes.
21	DR. BOVE: that situation. I'm aware of
22	that stuff, and we, of course, we know people
23	in New York state.
24	DR. FISHER: ^ Rudder, NIOSH, Cincinnati.
25	She's published some of the dry cleaner
I	

1 studies. 2 DR. BOVE: I have that dry cleaner study. 3 MR. STALLARD: So what is the next most 4 feasible approach? DR. RENNIX: I think the incidence --5 DR. BOVE: Cancer incidence. 6 7 DR. RENNIX: -- with the NHRC. 8 DR. BOVE: Oh, you think that is the next --9 DR. RENNIX: I think that's pretty feasible. 10 It's five years worth of data incident ^, extracted from medical records so it'd be 11 12 pretty stable, pretty reliable. 13 MR. ENSMINGER: What years? 14 DR. RENNIX: Whenever they started. I think 15 '79 or '80 they started collecting data to '85 16 of people who were exposed. And they can look 17 up until the present time in that database. So they can track the years. 18 19 MR. ENSMINGER: Incidence of what? 20 DR. RENNIX: I'm sorry? 21 MR. ENSMINGER: Incidences of what? 22 DR. RENNIX: Any disease you have a ICD-9 23 for. I'm sorry, a disease code for. So if 24 we're going to look at kidney disease, not 25 kidney cancer, and people just being diagnosed

1	with it, then they can take this cohort of
2	200,000 and follow them from 1984 and see if
3	they were ever diagnosed with anything within
4	the military.
5	And incidence happens earlier than
6	death. So if it's a disease that takes 30
7	years to die from, but it might be discovered
8	at 15 years, we're likely to capture it while
9	they're still on active duty whereas they died
10	when they were retired.
11	DR. BOVE: So the 200,000 here, they would
12	be found in the CHAMPS database?
13	DR. RENNIX: If they're on active duty,
14	they'd be found in the CHAMPS database.
15	DR. BOVE: So it would be the people on
16	active duty between '80 and '80 is when
17	they started with the Marine Corps.
18	DR. RENNIX: Right.
19	DR. BOVE: So '80 to '85. So how many would
20	that be? That would be half, maybe half of
21	the ^.
22	DR. RENNIX: Well then, 100,000 people's
23	pretty good to follow for an incidence study.
24	DR. BOVE: No, I'm just trying to get my
25	head wrapped around it. I wasn't thinking

this way.

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2 DR. RENNIX: That's 100,000 per year, I 3 mean, that's pretty powerful per incidence. 4 MR. ENSMINGER: Can we get the NHRC to do 5 anything? 6 DR. RENNIX: Yes, I don't think that they 7 don't want to do it. It's just that they are 8 very, they are a research organization that if 9 they break the rules and have their data shut 10 off, they're out of business. They get paid 11 for each study they do. They are a grant 12 research organization for the Navy. So if 13 they lost their data, they're out of business. 14 So they're very, very protective of 15 it. So they've got to follow their data 16 rules. Once they have permission, and they 17 have the data rules, they'll do it. So 18 they've already told you they'll do it. It's 19 just a matter of getting them to again put it 20 on the top priority for their things to do. 21 MR. BYRON: So basically we've got to keep 22 beating on their door. Don't forget us. 23 DR. RENNIX: Beat on my door. 24 MR. STALLARD: Does this go back to your 25 communication with the Surgeon General?

1 DR. RENNIX: Yes. 2 DR. BOVE: Yeah, no, I never thought about 3 this side because I guess I wasn't thinking 4 that they had that many people. But then we 5 didn't know we had 100,000 --DR. RENNIX: Yeah, I think we have ^. 6 7 MR. BYRON: Do you have to specify each 8 disease code because there's quite a few. 9 DR. RENNIX: You just run it. You just run 10 it. Or you could just do like if it's breast 11 cancer, which is 174, you can do all the 174 12 codes. You don't have to do each individual 13 code. 14 DR. BOVE: And we'll do it for the other 15 diseases besides liver and kidney. We could 16 do almost anything. The question was do we 17 have enough numbers, and I guess we do. 18 DR. RENNIX: We've been looking at cancer-19 specific populations at my place, and we feel 20 pretty confident it could be done in a 21 reasonable amount of time. They're using the 22 same database we're using, but theirs goes 23 back further. 24 DR. BOVE: Originally I was thinking of 25 getting the cancer incidence by looking at the

1	states where most retirees seem to be and then
2	looking at those cancer registries and doing
3	case control studies with those eight, ten
4	registries. But this actually is a lot
5	easier.
6	DR. RENNIX: It's a lot faster.
7	DR. BOVE: A lot faster, yeah. We're for
8	that.
9	DR. RENNIX: And we already have demographic
10	data built in.
11	DR. BOVE: No, I just didn't think we could,
12	well, I already said that.
13	DR. CLAPP: Let me guess, it'll take six to
14	nine months.
15	DR. BOVE: No, that'll be fast.
16	MR. ENSMINGER: That's how long it'll take
17	us to get NHRC to do it. Once they do it
18	MR. STALLARD: What does NHRC stand for?
19	DR. RENNIX: Naval Health Research Center.
20	MS. MCCALL: I'm glad you had your Wheaties
21	today. Somebody did.
22	MR. STALLARD: Now you have already
23	requested for assistance in having the
24	datasets released.
25	DR. RENNIX: Basically released to be able

1	to do it, yes.
2	MR. STALLARD: So the timeframe once that
3	happens
4	DR. RENNIX: I would think it's relatively
5	quickly, a couple months.
6	MR. STALLARD: So by summer, sometime mid to
7	late summer potentially.
8	DR. BOVE: Right, again, protocol, written
9	IRB
10	DR. RENNIX: Everything here is protocol.
11	DR. BOVE: Well, they're not doing the study
12	are they? We're doing the study.
13	DR. RENNIX: You asked them to run a
14	incidence of these different codes for the
15	Marines for that time period. We can send
16	them a list of Marines that are specific to
17	Camp Lejeune. It's the same protocol just
18	going to look at a different dataset ^.
19	MS. McCALL: What are the codes called, the
20	abbreviations?
21	DR. RENNIX: International Classification of
22	Disease, ICD.
23	MS. McCALL: ICD.
24	DR. BOVE: Right, it's the same protocol so
25	we could do it all at once.

DR. RENNIX: You can do them both. You can do all Marines and then look at a subset with Camp Lejeune population. In fact, that would probably be very informational, in fact, compare it to the whole group.

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MR. STALLARD: So the data provided from this effort would be rolled into whatever protocols you have to do. Is that right?

DR. RENNIX: No, we already have a protocol from ATSDR at NHRC. It's already, as far as I'm concerned, they've approved it. Now they've got to get their IRB to approve it. So it's just a matter of changing the data input if we were going to look at it. So I don't think that's a major modification.

16 MS. RUCKART: Yeah, but we still at ATSDR 17 would need to have a separate protocol to do a 18 study where this feeds into that. So we 19 still, again, have a protocol that we say 20 we're going to receive data from NHRC, and 21 this is what we're going to do with it. And 22 then it goes through our peer review, and it 23 goes to our IRB, right? 24 DR. BOVE: The difference here is that this 25 is a study. And what we asked Naval Health

1 Research Center previously was not a study. 2 That's all. And because it is a study, we 3 have to go through our IRB. That's all. That 4 shouldn't take long. We're not, we could 5 write the protocol so that there really isn't 6 much in the way of personal identifying 7 information that we need. We don't probably 8 need any really. We need a demographic 9 breakdown of the people, and we could do a 10 study just to simply like that. 11 MR. STALLARD: So what would this one, if 12 the first one was considered to be the 13 comparison with the National Death Index, 14 what's this one called? Incidence --15 DR. BOVE: No, the comparison is, Chris, is 16 17 DR. RENNIX: If you do just incidence study 18 of the Marines, you're going to compare them 19 to --20 **DR. BOVE:** Everybody else? 21 DR. RENNIX: -- everybody else. You're 22 going to do the Camp Lejeune people we can 23 compare them to the other Marines and see if 24 there's a difference between ever being 25 stationed at Lejeune during the time period

1	and the Marines who were never stationed
2	DR. BOVE: Stationed there, okay.
3	DR. RENNIX: So it would be an internal
4	comparison with the most Marines.
5	DR. CLAPP: I like it.
6	DR. BOVE: I like it, too.
7	MR. ENSMINGER: So what's the name of it?
8	DR. BOVE: Chris Rennix's study.
9	DR. RENNIX: It will be a disease incidence
10	study for Marines from 1980 to 1985.
11	Depending on how they want to cut it, it could
12	be all Marines or it could be the Marines who
13	were stationed at Camp Lejeune compared to all
14	other Marines during the same time period.
15	MR. STALLARD: But it is basically the
16	diseases being studied for Marines stationed
17	at
18	MR. ENSMINGER: Do we want it for all or do
19	we want it for just Camp Lejeune?
20	DR. BOVE: Well, as Chris was saying, you
21	have a couple options here. You can compare,
22	we can do them all. All Marines, well, we can
23	break them down between Lejeune and not
24	Lejeune.
25	DR. RENNIX: What we normally would do is we

1 do the Marines, we have the ^ of all Marines. 2 We subset out the 100,000 Marines who were at 3 one time stationed at Camp Lejeune, and then 4 the rest of the group were never at Camp 5 Lejeune. So compare the disease incidence of 6 both those groups. 7 DR. BOVE: But we also can compare those 8 Lejeune Marines to everyone else in the 9 If we're worried that all the database. 10 Marine Corps bases are contaminated, we can 11 maybe and whatever else is in the CHAMPS 12 database. No? Never mind. 13 MR. ENSMINGER: We don't have any other 14 bases --15 DR. BOVE: Never mind. I thought I heard 16 you say, Chris, that everyone else, when you 17 said everyone else. 18 DR. RENNIX: Everyone else would be other 19 Marines. 20 DR. BOVE: Other Marines. 21 DR. RENNIX: Because Marines have random exposures no matter where they're located, and 22 23 that controls for that. 24 MR. STALLARD: So we have two very concrete 25 steps forward it sounds like so far. One

1 question that did come up previously in 2 meetings is what method is there for expedited 3 IRB and all that kind of review? In other 4 words we say six to nine months. I think the 5 question that had come up is there anything 6 that allows for expedited action? 7 DR. BOVE: Yeah, I think this could be an 8 expedited, we could make a case for expedited 9 I think. 10 MR. BYRON: But do you need to assign a pit 11 bull to do this, to keep it moving because 12 really --13 DR. RENNIX: No, no, Frank's using a 14 different term. There's exempt, expedited and 15 full, and he's talking about expedited. I 16 think he's talking about expediting your 17 review process. Instead of being six to nine 18 months where it's three months in peer review 19 and three months before IRB, can that be one 20 month in peer review and one month before the 21 IRB? 22 I would say probably not MS. RUCKART: 23 because what happens with the peer review 24 process they allow at least a month for the 25 external peer reviewers to review the

1	protocol, and then we have to respond. That
2	can be
3	DR. BOVE: I think that could be a two-month
4	period.
5	MS. RUCKART: shortened, maybe two months
6	
7	DR. BOVE: And if the IRB, as I said,
8	there's an expedited review that IRB does, and
9	sometimes that's a lot quicker than the full
10	review. Sometimes it isn't unfortunately.
11	MS. RUCKART: I think that's for expedited,
12	and that's what takes three months
13	DR. BOVE: No, no, they've done it faster.
14	They've done it faster, and they did it faster
15	for the situation at the Naval Health Research
16	Center. So we can try to shorten things up as
17	much as possible, but I can't guarantee it
18	won't take a certain amount of time because
19	you have to go through these things. You
20	can't do a study unless you do them. There's
21	just no, you just can't do it otherwise.
22	DR. RENNIX: It's not surveillance activity.
23	DR. BOVE: Yeah, it's not surveillance
24	activity. No, and in fact, IRB has a broad
25	definition of research, very broad, gets

1	broader every day it seems to me.
2	MR. STALLARD: So if it could be done, what
3	would be then the next opportunity for a
4	study?
5	DR. BOVE: I think this is this is my own
6	opinion I think that this is actually a lot
7	more than I thought we would even accomplish
8	today because I wasn't thinking about the
9	Naval Health Research Center in the way Chris
10	was just thinking of that. So that
11	MS. McCALL: That's helpful?
12	DR. BOVE: That's extremely helpful, but
13	that's why I wanted Chris on the CAP to begin
14	with.
15	MR. ENSMINGER: Thank you, Dr. Rennix.
16	DR. BOVE: And the idea of looking at state
17	cancer registries I think can be put aside for
18	now and something we might pursue based on the
19	results of these studies if we wanted to look
20	in more depth. That always was not a great
21	way of going about it, but it was one way to
22	get at cancer incidence. But if we can get at
23	cancer incidence this way, it's
24	MR. MARTIN: What about a comparison of the
25	two? I mean, can they run both of them at the

1 same time? 2 DR. BOVE: Run both? 3 MR. MARTIN: Comparison, the mortality study 4 and then the state cancer studies. 5 DR. BOVE: Well, what can be run at the same 6 time is the Naval Health Research study and 7 the --8 DR. RENNIX: Did you ask them for mortality 9 in your request? 10 DR. BOVE: The Naval Health Research Center? 11 No, just incidence. No, we didn't talk about 12 mortality at that meeting, no. 13 MS. RUCKART: But, Frank, let me ask you 14 this because when we were talking about our 15 work plan, obviously, you need to finish the 16 current study, and when we were just thinking 17 before this meeting about what was possible, we had said starting with first quarter fiscal 18 19 year '08 sending names to NDI so that would be 20 the end of 2007. So that would probably be 21 the earliest because thinking about we'd have 22 to allow six to nine months, we'd write a 23 protocol sometime in the summer. 24 So do you still feel that's the 25 timeframe because people, I think, want to

1 know what are we talking about. We're 2 starting out six to nine months, but they want 3 to tie it down to a calendar date. 4 MS. DYER: Is it six to nine months from 5 today? Is it six to nine months from the time we finish the other study? 6 7 DR. BOVE: Well, no, I don't think it needs 8 to be tied to the other study. I mean, we do 9 have personnel issues meaning we don't have 10 enough to do things quickly. That's true. Ι 11 was thinking more of it would be tied to when 12 we got the information that we first request 13 from the DMDC. We would find out what the 14 situation is at OPM, and when we could get 15 that data from them and so on. So it would be 16 from the time we got the demographic 17 information from DMDC, we find out about what 18 the situation is at OPM. 19 MS. DYER: Okay. TRJ ^. What about we 20 asked you guys if you needed more personnel, 21 and you just, you're sitting there right now 22 saying you don't have them. 23 MS. RUCKART: It's, you know, we, these are 24 issues that are beyond our control. We --25 DR. BOVE: I've been saying we need

1	personnel all the time -
2	MS. DYER: Yeah, but I mean, we asked
3	MS. RUCKART: We asked, okay? Our branch
4	chief put forth a request to fill a position
5	that would work on Camp Lejeune projects among
6	other projects.
7	DR. BOVE: We will ask.
8	MS. DYER: To who? Who do you have to ask?
9	DR. BOVE: First of all we have to go
10	through our own agency and make the request.
11	We can request more FTEs.
12	MS. RUCKART: We can, but I'm not, based on
13	information we were given I don't want to give
14	the wrong impression here that it's more
15	likely than it is because my personal opinion
16	based on information that I've heard at
17	meetings that we've had is that it's not very
18	likely just based on what they said.
19	Do you feel differently?
20	MS. DYER: See, I thought I had been told
21	that the Marine Corps had asked ATSDR, yeah,
22	that the Marine Corps had asked
23	MS. RUCKART: ^
24	MS. DYER: Yeah, if they needed more
25	personnel, and that y'all told them no.

1 MS. RUCKART: It's not a personnel issue. 2 MS. DYER: And so it seems like it would be 3 the Marine Corps that would be paying for more 4 personnel to be brought on to help you. 5 DR. BOVE: It's a little complicated because there are rules within our Agency about 6 7 filling positions. I can ask for a whole lot 8 of FTEs, another acronym. Who's going to fill 9 them? 10 DR. RENNIX: Full time employees. 11 DR. BOVE: And where are we going to get 12 these people? And can we get these people? 13 And that bumps against our own hierarchy here. 14 So I can't answer that question other than I 15 can make a case now that we're going to need 16 more people if we're going to pursue these 17 studies. 18 And my concern, of course, is we get 19 qualified personnel, not just anybody thrown 20 into the breach. I'm sure you would feel the 21 same way. But I certainly would feel the same 22 way because if I have to do the other person's 23 work as well, it doesn't help matters, right? 24 I'm just telling you what the reality 25 The reality is that we've been frozen in is.

1	this Agency for a long time now. If the
2	money's coming from another source, that may
3	help, right?
4	MS. RUCKART: As a contractor. I don't think
5	it's possible to get FTEs, maybe some contract
6	support.
7	DR. BOVE: Well, see, here's where pressure
8	on the Agency what can I say might help
9	if we have difficulties here. I'm not saying
10	there will be. So let us go through and look
11	at the issue and see if we can't get more FTEs
12	and quality people to fill them. I can't
13	really answer that here.
14	MR. STALLARD: So the issue's on the table
15	to look at the levels of personnel support
16	required in order to do what has been
17	identified by the CAP as the steps forward.
18	Anything else?
19	MS. DYER: Is this just a statement? Is it
20	statement time where we can make a statement?
21	MR. STALLARD: We're getting there. You've
22	got something to say?
23	MS. DYER: Yeah.
24	MR. STALLARD: Well, you'll have an
25	opportunity.

1 MS. McCALL: She wants to know at the next 2 CAP meeting all abbreviations and ^ put two 3 CAP meetings in one. We need a list of all 4 your acronyms. 5 MR. STALLARD: And for the record we already 6 know what CAP means? 7 MS. DYER: Cap means? 8 MR. STALLARD: What CAP, C-A-P, what does it 9 stand for? 10 MS. DYER: I keep telling people it's 11 Community Action Panel or --12 DR. BOVE: No. 13 MR. STALLARD: Okay, so we have a Community 14 Action Panel over here. 15 DR. BOVE: It's Community Assistance Panel. 16 MS. DYER: I like the word action better. 17 WRAP UP AND NEXT STEPS 18 MR. STALLARD: All right, folks, surely we 19 digress. We have to leave here in 45 minutes. 20 We need to plan what our next steps are going 21 to be, and I'd like to give people an 22 opportunity if they have issues or concerns or 23 something to say, that opportunity. So let's 24 talk next steps, and then we'll close out with 25 comments.

1 MS. DYER: Next steps as in when's our next 2 meeting or next steps as in --3 MR. STALLARD: Well, I think --4 MS. DYER: They know what they need to do. 5 MR. STALLARD: -- I think next steps are, 6 clearly, there's been a plan identified forward, correct? 7 8 DR. BOVE: Yeah, absolutely. 9 MR. STALLARD: So I'm going to throw it out 10 there so that we can get a response. The plan 11 would be to more fully articulate what's 12 involved in doing all this which is going to 13 come from the minutes and the dialogue that 14 has happened today, and then present that back 15 to the CAP members so that they understand 16 fully what all has been discussed; what's 17 involved in those two different studies or 18 approaches, let's call them, in the direction 19 of a study. Those are two concrete next steps 20 that will happen. 21 So then the next question is what are 22 the next steps then for the CAP. And based on 23 what you're doing here, is there a need to 24 meet? Are there additional issues that need 25 to be resolved? I don't think we've really

1 covered, in my view, I don't think that 2 there's a strategy about notification. And 3 the question comes up is how do we approach 4 that --5 MR. BYRON: May tie that in together. 6 MR. STALLARD: Before or after this, right? 7 DR. BOVE: What I need to do, and I'm sure 8 the Marine Corps is going to insist on it, is 9 that I finish the feasibility assessment. And 10 feasibility assessment will work up these two 11 ideas, one big idea, for a study. And I'd have to do power calculations and the whole 12 13 nine yards and make the case that it makes 14 sense to do that. I would probably have to do 15 that for my own higher ups as well. So that I 16 can do. 17 I would like to get the DMDC 18 information beforehand, but I can certainly 19 start to do that now. So that has to get done 20 because we said we would do a feasibility 21 assessment. I need to produce one and give it 22 to the Marine Corps. 23 So some of this information gathering 24 is still outstanding like getting the 25 descriptive information with DMDC, talking to

1 the OPM person, getting that lined up is part 2 of that effort. So I think that we don't 3 necessarily have to meet. I think that the 4 CAP should get a progress report from us as 5 this goes on. So as soon as we get the 6 information from the DMDC you'll know about 7 it. As soon as the feasibility assessment is 8 drafted you get a copy of it. 9 MS. DYER: Are you going to do like maybe a 10 ^? 11 DR. BOVE: Yeah, if you feel like, again, 12 that's up to you guys, but I think that that's 13 one thing so I can get the information out to 14 you so we don't necessarily have to sit in 15 this room and do that. But if you feel like 16 it's necessary to come together either by 17 phone or by meeting, we can do that, too. 18 And that doesn't, you know, yeah, I 19 think we're all going to be very, I mean, 20 we're going to be busy because we're still 21 working on the current study, too. So if we don't have to plan one of these for awhile, 22 23 that wouldn't bother us. But it's up to you 24 guys, too, if you want to meet. We're at the 25 end of March now, right?

1 MS. RUCKART: But I say the best thing to do 2 is wait until we give you these documents and 3 then decide once you see them do we need to 4 meet by phone or in person. Let's not make 5 that decision until we see how many questions 6 come out of the documents and what your 7 concerns are or comments. 8 MS. McCALL: When will the in utero study be 9 finished? 10 DR. BOVE: We're still hoping to finish it 11 at the end of the year. 12 MS. McCALL: December. 13 DR. BOVE: Yeah, the problem will be how 14 difficult Hadnot Point is. If it's very 15 difficult, it'll get pushed into early next 16 year. 17 MS. McCALL: That's in regards to water 18 modeling? 19 DR. BOVE: Yeah. That's the hard, that is 20 going to be the hard site. On the other hand 21 there are assumptions that can be made to ease 22 that exposure assessment. I'm sure that that 23 would be explored, too, so they may be able to 24 get the data to us in time for us to finish in 25 December. Or at least be able to, yeah, to

1	have it finished by the end of the year.
2	MR. BYRON: Is there anything that the CAP
3	members themselves can do to help speed the
4	process along? I mean, it just seems like we
5	go home for the next few months. We lose a
6	little ownership. We know you guys are
7	working on it, but it seems
8	MS. DYER: Well, they need personnel.
9	MR. BYRON: to be taking a lot of time.
10	So I mean, is there something that other than
11	political pressure or whatever that may be
12	MR. MARTIN: And I'm going to go back and
13	ask can we get some type of
14	MR. ENSMINGER: Write letters.
15	MR. MARTIN: letter of support from the
16	Commandant of the Marine Corps.
17	DR. RENNIX: Let me explain the process for
18	getting attention. Jerry got attention. He
19	wrote a letter because it created a
20	requirement that the Commandant wanted to
21	respond to. The letter that ATSDR wrote in
22	October to General Flock, when I read it, it
23	looked like an information letter, not a
24	request for assistance. That's how I
25	interpreted it. It just says here's what

1 we're doing. Here's what we've requested. 2 Thank you very much, and not really who's 3 responsible. 4 MR. BYRON: Didn't say we need it. 5 DR. RENNIX: Right, so I think that if we 6 work, the military works off creating 7 requirements. If the CAP writes a letter and 8 says we need these things, if you want a 9 policy on notification, ask. They might turn 10 you down, but at least they have to respond. 11 MR. BYRON: You're right. 12 DR. RENNIX: So you know, the minutes are 13 not official requirements. They're just 14 minutes. So create requirements. Write 15 letters that request specific answers. The 16 least they can do is say no. 17 MR. BYRON: So that's as CAP members, that's 18 what we can do to help out --19 DR. RENNIX: I think ATSDR needs to write a 20 letter from your people to the Commandant 21 saying this is what are barriers to our 22 success. We need the Marine Corps to do this, 23 this and this. 24 MR. BYRON: I understand what you guys need 25 to do. I want to know what we can do to help

you get this moving quicker. Is there anything we can do? ATSDR, is there anything we can do as the citizens affected community to help out here as far as that or is it pretty much in your hands because you have the authority as employees of ATSDR and us just being private citizens can't really help out in that aspect? What is it? That's why we're here.

10 **DR. BOVE:** Yeah, well, you're helping by 11 being here. Many of you have helped over time 12 giving us ideas on the water modeling and so 13 on. So you sound like you haven't helped all 14 along. I mean, I just can't think right now 15 of what -- I'm just tired -- what you 16 specifically can do. There are always things 17 you can do on the outside which you know what 18 you can do. We don't have to tell you or even 19 suggest it. I don't think we're allowed to 20 suggest it. 21 MR. BYRON: Well, I mean within the scope of

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MR. BYRON: Well, I mean within the scope of what we're --

DR. BOVE: Seriously, I think at this point I can't think of anything in particular. I think what we need to do is keep you informed,

1	and if we're running into roadblocks, you
2	might be helpful then, but right now
3	MR. BYRON: But if you think of anything,
4	you'll e-mail us.
5	DR. BOVE: Well, you would also get progress
6	reports and in the progress reports we'll tell
7	you if there's been a problem. And if we need
8	suggestions from you as to how to get around
9	the problem, we will ask for it.
10	MR. STALLARD: Tom?
11	MR. TOWNSEND (by Telephone): Can you hear
12	me?
13	MR. STALLARD: Yes, we can. I'm going to
14	turn you up just a little bit, Tom. Go ahead,
15	Tom.
16	MR. TOWNSEND (by Telephone): ^^^^^
17	MR. STALLARD: Let me see if I got that.
18	You're saying that using the chain of command
19	to articulate our requirements would be the
20	best way for getting the responsive action
21	we're looking for. Is that correct?
22	MR. TOWNSEND (by Telephone): I think so,
23	yes.
24	MR. STALLARD: I can tell you that anyway
25	from a CDC perspective that chain of command

1 is somewhat of a novel idea, but we're working 2 on it. 3 MR. TOWNSEND (by Telephone): So be it, I 4 guess. 5 MR. MARTIN: So we're looking at all this information coming in and being together to 6 7 sit down and discuss --8 DR. BOVE: Yeah, I need the information to 9 finish the feasibility assessment, and I think 10 that I have a lot of it already. And I just 11 would like to get some additional information 12 from DMDC, and I'll make a request for that. 13 And then I'll write this thing up. And that 14 will be our justification for going forward. 15 And if you, you know, I'll send it out for 16 your comments so that, that's one way you can 17 help right there. (Whereupon, telephonic interruption occurred.) 18 19 **DR. BOVE:** A timeframe for doing it. The 20 timeframe for getting this thing done is, 21 again, I'd like to get this data from the DMDC 22 and find out from OPM what I have to do to get 23 this information. 24 MR. ENSMINGER: What's OPM? 25 DR. BOVE: Office of Personnel Management.

1	MS. RUCKART: For the civilians.
2	DR. BOVE: Yeah, for the civilians.
3	It would be good to have an idea of
4	how many civilians we're talking about so I
5	can put that in the feasibility assessment.
6	And so those are the kinds of steps I need to
7	take.
8	MR. ENSMINGER: Is Tom still there?
9	MR. STALLARD: Yes, he is.
10	MR. BYRON: Can the U.S. Census Bureau, do
11	they gather enough information to help in this
12	scenario at all? Is there anything that can
13	be gleaned from the U.S. census or not?
14	DR. BOVE: Probably not.
15	MR. MARTIN: I think all they get is
16	numbers, you know, household.
17	DR. RENNIX: If you're looking for people,
18	LexisNexis is the best way to find them.
19	MR. STALLARD: All right, we have half an
20	hour so what I'd like to do at this point is
21	to have we come to consensus about the next
22	steps for the CAP? That you're going to get
23	the information digested, and then we're going
24	to find out after that whether we need to meet
25	either telephonically or in person. Is that

1	correct?
2	(affirmative response)
3	MR. STALLARD: Okay, good. We have our two
4	large studies into one. I think that's clear,
5	steps forward. Any comments as we go around
6	the room?
7	MR. ENSMINGER: Let's review what we're
8	going to do now.
9	MS. DYER: We did when you went out.
10	MR. ENSMINGER: Okay.
11	MS. BRIDGES: We're not going to know
12	anything.
13	MR. BYRON: Just outline it for us, please,
14	if you could.
15	MR. STALLARD: Say what?
16	MR. BYRON: Can you outline that, without us
17	all involved? Can Frank?
18	MR. STALLARD: Yeah, I want Frank to outline
19	it, please. He articulated it quite well
20	because he's rolling up Dr. Rennix's
21	information and it's all
22	DR. BOVE: All right, one more time.
23	MR. STALLARD: One more time.
24	DR. BOVE: I have to finish the feasibility
25	assessment because the Marine Corps wants it

1	and so do my higher ups want it. In order to
2	finish it I think it would be good to get a
3	sense of how many civilians are in this, we
4	can include in this study. And so I have to
5	contact the Office of Personnel Management
6	I'll try to stop using acronyms in order to
7	do that.
8	From the Defense Manpower Data Center
9	I will request demographic information that
10	will also be helpful in finishing up the
11	feasibility assessment. And I also need to do
12	the lit review to put in there. So those are
13	the components I think would go into the
14	feasibility assessment.
15	I would try to get that work done in
16	the next two months. I think that might be
17	doable unless I'm having some, unless it takes
18	longer to get some of this information from
19	OPM and DMDC.
20	MS. RUCKART: One thing though also, as part
21	of working with DMDC we'll ask for the Navy
22	personnel stationed there, too.
23	DR. BOVE: Right, but that's additional
24	information from the DMDC ^ data manpower ^.
25	And then do I need to do anything for

the Naval Health Research Center except -- no, you're going to handle that. So that's the step is to get the feasibility assessment written, drafted, sent out to you, get your comments back, submit that to USMC and then move on to write the protocol.

MR. STALLARD: And in the meantime what's going on with the information that Chris was talking about, that he's asked, he's provided a point paper to the Surgeon General?

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11 DR. BOVE: Well, at the same time there's no 12 reason why we can't continue to work with the 13 DoD EA to figure out what the status of that 14 data, the Education Activity people, I'm 15 sorry, to see what the reels really look like. 16 How poor in shape are they? And so I'm 17 waiting, there's no reason not to continue 18 that process. And Chris is working on the 19 Naval Health Research Center on our initial 20 request. So that's still there. So that 21 needs to get finished up, too. 22 MS. RUCKART: And the additional piece that 23 Chris would try to facilitate, getting the 24 disease incidence data? 25 DR. BOVE: Yeah, we just said, right.

1	MR. STALLARD: So in two months.
2	DR. BOVE: Two months to try to direct the
3	feasibility assessment. I'll try as far as I
4	can to do that. I mean, again
5	MS. DYER: We're not talking about meeting
6	again.
7	DR. BOVE: Yes.
8	MS. DYER: You're talking about getting all
9	this
10	DR. BOVE: No, no, no, I know that.
11	MS. DYER: and then us deciding if we
12	want to meet or not.
13	MR. ENSMINGER: I think we need to meet
14	after we get that done.
15	DR. BOVE: Well, what I'd like to do is
16	draft it. You guys read it and send me your
17	comments. And if you feel after looking at
18	that that we need to meet, then we'll meet.
19	It may be worthwhile to wait a little while
20	longer. Now when I'm writing the protocol
21	maybe we can sit down as a group and we can go
22	over that.
23	So in other words I'm trying to figure
24	out when it makes sense, I mean holding these
25	meetings takes time, too. It takes your time,

1	our time, and I think, I don't know if we
2	necessarily need to meet right away in order
3	to get a lot of this stuff done. But it's up
4	to you. It's your CAP, so you tell us when
5	you feel the need, the need to meet, and we'll
6	organize it.
7	MR. ENSMINGER: Three months, people start
8	losing their
9	MR. BYRON: I don't want it to go six
10	months. I know that.
11	DR. BOVE: Well, we will be sending a
12	progress report so
13	MR. ENSMINGER: Not just motivation, but you
14	lose your chain of thought. You lose, you
15	know, you can't focus on what's going on, and
16	this thing's been delayed several times with
17	six months at a pop. And you've got to have
18	continuity if you're going to get anything
19	done.
20	DR. BOVE: Again, you'll get progress
21	reports from us. If you want to hold a
22	meeting, we will hold a meeting.
23	MS. DYER: Let's try to not go over three
24	months. Can we say that?
25	MR. MARTIN: July? Sometime this summer?

1 MR. STALLARD: I just want to point out for 2 the record though that the CAP decided not to 3 have a meeting and allow this time so that the 4 water modeling could be done. We saw as a 5 result of that the amazing application that that is going to have to this process. 6 So --7 DR. BOVE: Yeah, it may be worth, we may 8 need to --9 MR. ENSMINGER: Yeah, but there's other 10 stuff that falls down through the cracks. 11 MR. STALLARD: Well then we need to shore up 12 the cracks. 13 MS. RUCKART: Well, we can also have a call. 14 I know that a call is not as productive as a 15 face-to-face, but in the interim we can try to 16 have a call if people think that you don't 17 want to lose momentum, but maybe it's not a 18 full meeting. We don't have six hours worth 19 of material to bring everyone together. We 20 can try to do it via call again. 21 DR. BOVE: Another possible time to meet is 22 when Morris has something to say about Hadnot 23 Point. 24 MS. DYER: Absolutely. 25 DR. BOVE: So that that may be, so that

1	that's ready by the summer, and I'm hoping
2	we'll have something by then.
3	MS. MCCALL: Why do we always plan the
4	meetings when he's on vacation? Why do we do
5	that?
6	MS. DYER: Well, we'll work it around him
7	next time, right, guys?
8	DR. BOVE: Yeah, I want him to be here next
9	time.
10	MR. STALLARD: And there was one other
11	action item. I think either it was implied or
12	offered and that was in terms of the chain of
13	command. And I think you two are working well
14	together to help identify the requirements
15	that are articulated in a way that gets to the
16	people who take action. What's that?
17	DR. RENNIX: If it's not in writing, and
18	it's sent to the right people then it's just a
19	nice thought. When you send something to the
20	Surgeon General or the Commandant or my boss,
21	he's going to get out resources to take care
22	of that problem. I can't get resources as
23	easily as he can.
24	MR. STALLARD: So the request both from Tom,
25	and what I've heard is for CDC/ATSDR to

1 utilize chain of command more directly in 2 terms or articulating requirements that will 3 generate a response from the appropriate 4 levels. Correct? 5 MR. MARTIN: CAP members as well. 6 MR. STALLARD: Say that again, Tom. You're 7 going to have to shout I'm afraid. 8 MR. TOWNSEND (by Telephone): Okay, that is 9 correct. ^ but they still have to forward it 10 on to HHS, and HHS will do the same thing ^ 11 MR. STALLARD: All right, Tom, I can assure 12 you that we heard parts of it where you're 13 emphasizing using the chain of command. But 14 just to be sure we captured your entire thought stream --15 16 MR. ENSMINGER: He's talking about getting 17 endorsements. 18 MR. STALLARD: I see. 19 MR. ENSMINGER: You forward your letter up 20 the chain. Each person in the chain of 21 command gets a chance to put an endorsement on 22 there. They may not want, not agree with it. 23 If they don't agree with it, they can say do 24 not concur, forwarding, do not concur, or 25 forwarding, recommending approval. But it's

1	still got to keep going.
2	MR. STALLARD: Yeah, that's the military
3	method, system of governance. It is not
4	replicated throughout the federal government.
5	All right, but the message is heard
6	and received, right?
7	(affirmative response)
8	MR. STALLARD: Now will be our opportunity
9	to go around. We have about 20 minutes, and
10	we're out of here at three o'clock. Wait a
11	minute. Before yeah, I'm going to put the
12	timer out.
13	There's a couple of process things I'm
14	supposed to say. If we have another meeting,
15	it's very important that members of the
16	audience register their intention to
17	participate in a timely fashion. Did I say
18	that right?
19	MS. RUCKART: By the deadline.
20	MR. STALLARD: By the deadline, that would
21	be in timely fashion, by the deadline.
22	Likewise, when you submit your vouchers, those
23	of you who do voucher submissions, these are
24	financial instruments. You sign it, you're
25	saying, yes, this reflects what you're due and

1	what you paid and what you expect back.
2	There's not usually any good reason to go back
3	and ask for a change or amendment to those.
4	Did I cover that?
5	DR. BOVE: Yes.
6	MR. STALLARD: Don't change your voucher
7	unless it's absolutely
8	DR. BOVE: Because the government trip
9	program we're now under is not easy to use.
10	And it's not easy to make last minute changes.
11	I mean it's impossible to make last minute
12	changes.
13	MS. DYER: No, it's not, and they're
14	charging us full price at the hotel.
15	DR. BOVE: Well, no, you have to go back,
16	that's another
17	MS. RUCKART: That's separate than us
18	processing an order to bring you here. That's
19	something else.
20	DR. RENNIX: They said if you had a copy of
21	that
22	MS. RUCKART: Oh, the order.
23	DR. RENNIX: government order, they would
24	have given them the government rate.
25	MS. BRIDGES: Well, I asked them if it was

1	the government rate. It's \$124.00. They said
2	yes.
3	DR. BOVE: No, you need to go back to the
4	hotel and get that changed because we called
5	over there this morning.
6	MS. DYER: We got charged \$189.00.
7	DR. BOVE: We're not sure what happened
8	there.
9	DR. RENNIX: They said their new rules are
10	if you can't show an ID or orders, they have
11	to charge you the full rate.
12	MS. DYER: So we have to have something from
13	you on letter form.
14	MS. RUCKART: Typically, they get travel
15	orders, but since we have switched to this new
16	system, the orders have to be put in a
17	different way, and we didn't forward them on.
18	We didn't realize that they were needed
19	because I don't believe they were needed
20	before.
21	MR. STALLARD: So there's an issue to
22	resolve and it's approximately \$80.00 to your
23	disadvantage.
24	MS. BRIDGES: So it should be 124.
25	MR. MARTIN: So then are you saying to go

1	back to the hotel now and they'll correct it
2	for us?
3	DR. BOVE: That's my understanding, yes.
4	That's what I was told this morning.
5	MR. STALLARD: Who's going to help resolve
6	that with the hotel and the orders? Somebody
7	
8	DR. RENNIX: ^ when they called to say
9	DR. BOVE: Should I go over back with them?
10	I have my ID, and I'll tell them I'll beat
11	them up if they don't.
12	MR. STALLARD: Let's see if we can't take
13	care of that right away.
14	MS. RUCKART: Why don't you just call them?
15	Before everyone goes over we can just make a
16	phone call from here and say if everyone comes
17	back over are you prepared to adjust their
18	rates.
19	DR. RENNIX: They said they would be if they
20	got a phone call from you all, they would
21	adjust the rates.
22	MS. RUCKART: But we, before we actually
23	send you all back we can check and then decide
24	if further steps need to be taken.
25	MR. STALLARD: So we're going to do that at

1	three o'clock when we
2	DR. BOVE: Why don't you call and then if
3	you need me, I'll come up.
4	MR. STALLARD: Any other process or logistic
5	things that need to be
6	MS. BRIDGES: My bill was 138.88 with tax.
7	MR. STALLARD: Then you're fine. You lucked
8	out. You're free to go.
9	MS. RUCKART: See, you may have checked out
10	after they got the phone call. So probably
11	that's what happened. You all checked out
12	earlier, but we'll just call and confirm that
13	they will adjust it, and likely that's going
14	to happen.
15	MS. BRIDGES: With tax and whatever.
16	DR. BOVE: She called over about 8:30.
17	MR. STALLARD: Thanks. Anything else on
18	logistics?
19	(no response)
20	MR. STALLARD: Submit your vouchers. That's
21	the other thing.
22	So this is your time. You have 20
23	minutes to share your thoughts and then we'll
24	be done.
25	MS. DYER: I just wanted to say that I

1 appreciate the Associated Press being here. Ι 2 think it helps to have an ever watching eye on 3 this situation, and I hope that they will come 4 back. 5 And a question to the Marine Corps has 6 just been raised lately by a lot of people 7 that I know that know the situation and what's 8 the difference in how military personnel and 9 their families and the civilian employees and 10 their dependents were and are being treated? 11 And how our war vets that are coming back 12 right now are being treated at Walter Reed Hospital? I think there's a lot in common 13 14 there. I think it's very disturbing. 15 MR. STALLARD: Thank you, Terry. 16 Anybody else? 17 MR. ENSMINGER: I was pleased today with the 18 progress that we made. This is starting to 19 move a little bit, and I still think that we 20 need our scheduled meetings. That's the only 21 way we can keep this stuff moving. 22 MR. STALLARD: All right, Jerry. Help me 23 capture that. What went well today? You said 24 there was progress forward? 25 MR. ENSMINGER: Yes.

1	MR. STALLARD: Anything else, well or not so
2	well?
3	MS. McCALL: Abbreviations not so well.
4	MS. RUCKART: You're a military person. You
5	should know.
6	MS. MCCALL: I know LES, EAS, EOB
7	MR. BYRON: CYA.
8	MR. STALLARD: That means challenge your
9	assumptions, okay? CYA. What else?
10	MR. ENSMINGER: On the not so well side I
11	believe that you ought to put there the lack
12	of continuity in these meetings.
13	MS. BRIDGES: We all agreed last time at six
14	months. We can't blame them for that.
15	MS. DYER: Yeah, but he didn't agree with
16	that.
17	MS. BRIDGES: Me either, I didn't agree
18	either.
19	MS. DYER: But we felt at the time that they
20	had a lot of work to do, and they needed the
21	time to do it. And then they were worried
22	about
23	MS. BRIDGES: And we never discussed it.
24	MS. DYER: Christmas and New Years and
25	all that. So there were some extenuating

1	things. Now there shouldn't be. They have a
2	lot of work, but I don't think it should go
3	over three months.
4	MS. BRIDGES: Me either.
5	MR. ENSMINGER: By the same token maybe some
6	of these things could have been remedied had
7	we had a meeting in the middle on these
8	information requests. They'd have been taken
9	care of a lot quicker.
10	MS. BRIDGES: Mr. Rennix would have popped
11	them out of his basket.
12	MR. STALLARD: Anything else, well, not so
13	well?
14	DR. CLAPP: We just need more of you, Chris.
15	DR. RENNIX: You know, my role is to
16	facilitate data acquisition, and that's it.
17	So for me to get actively involved is sort of
18	like getting out of what I've been asked to do
19	in this group here. So I've been hesitant
20	about doing that because that's not why I was
21	put here. But if you want me to, I will. I
22	don't want the Navy to look bad, you know,
23	look like they're stonewalling, so I'm going
24	to push as hard as I can to get it done.
25	MS. BRIDGES: We appreciate that.

1 MS. McCALL: Yeah, I really do appreciate 2 that because at the other meetings we never 3 heard, you know, two words out of you. And 4 now --5 DR. RENNIX: That wasn't my role. 6 MS. McCALL: Well, what is your role? Ι 7 don't want to get in an argument here or 8 anything, but what you just did for us saved 9 us at least three more meetings. 10 DR. RENNIX: My role as far as I could tell 11 when I was asked to join this was to, because 12 of my experience with the DMDC and other data 13 systems was to help you understand the 14 limitations and the strengths of the data. 15 You know, what I'm doing now is I'm taking my 16 position in BUMED, I'm leveraging that to get 17 more what you all want. So that wasn't my 18 role. 19 MS. MCCALL: I don't know, but it's not a 20 matter of wanting. It's a matter of needing. 21 This isn't something that we want. This is 22 something that we need. 23 DR. RENNIX: I understand. That's why I'm 24 stepping up. 25 MS. McCALL: We can't go forward without the

1 information and the ideas and the knowledge 2 that you have and the ways of getting around 3 to that knowledge. We have no idea. We don't 4 even know what to ask. I mean, we're just 5 people off the streets who have come together 6 because we all drank some bad water, and 7 that's it. You guys have the education and 8 all the know-how, and I can't tell you how 9 thrilled I am with the progress that you gave 10 to the meeting today. I mean, I'm just so 11 happy, and I think it's about time, and I 12 applaud you for whatever reason you did it. 13 MR. STALLARD: So I'll take that as a well 14 that Dr. Rennix's participation and ^. 15 MR. ENSMINGER: The water modeling was a 16 big, that's really progressed well. 17 MR. MARTIN: I know I'm probably not the one 18 that always jumps in with something positive, 19 but I'm fully -- and I told some of the other 20 CAP members on the phone in earlier 21 discussions that unless I saw I was able to 22 see some definite progress in this meeting 23 that I fully intended to resign because I felt 24 like we were making no progress anywhere. Ι 25 feel now, I'm encouraged. We have a starting

point, and at this point I feel confident that
we're going to actually start moving forward
instead of sitting ^. I know it took a lot to
lead up and to get to this point, and I want
to thank everybody for their patience. I know
these guys have been involved in it for many
more years than I have. But I do thank you
for getting us to the point where we can
finally start seeing some results.
MR. STALLARD: Thank you, Dave.
MS. MCCALL: And thank you, Perri and Frank,
for all your hard work. We've really come a
long way.
MS. RUCKART: I won't be at your summer
meeting.
MS. DYER: She won't be at the meeting.
She's going to have a baby.
MR. ENSMINGER: Is that why you didn't want
to have a meeting?
MS. RUCKART: No, I encourage you all to
have a meeting.
MR. STALLARD: Are there any other wells or
not so wells or any other additional comments
that you would like to make before we close?
MS. BRIDGES: I don't have anything to say.

1 DR. CLAPP: I think it's been said. 2 MR. BYRON: I'd like to thank everybody 3 that's here today, too, because I think we 4 have made progress. And I want to thank Chris 5 because I think the steps he's taken to try to 6 drive this a little further. If he stepped 7 out of his bounds, I appreciate that. And I 8 think it's important that what he said is that 9 when we ask for information, don't ask for it 10 as though we're giving information. 11 We actually have to almost demand and 12 request it, you know. It does have to go up 13 high enough. Because it's like at our shop, 14 my brother might come through and say I need 15 that area of the shop cleaned. Well, if 16 that's all he says, he could be waiting a long 17 But if he says I need that area cleaned time. 18 by Friday and says you're assigned to make 19 sure it happens, it's going to be done by 20 Friday or we don't go home Thursday night. So 21 thank you very much. 22 MR. STALLARD: Tom, can you hear us? 23 MR. TOWNSEND (by Telephone): Yeah, I'm 24 okay. 25 MR. STALLARD: All right, folks, that's it,

1 thank you --2 MS. McCALL: Do you have anything to say? MR. STALLARD: Do I have anything to say? 3 4 Tom, do you have anything to say? 5 (no response) 6 MR. STALLARD: He said he's all right. He 7 said it. 8 Thank you all for your time and coming 9 and have a safe journey home. Thank you. (Whereupon, the meeting was adjourned at 2:50 10 11 p.m.)

CERTIFICATE OF COURT REPORTER

STATE OF GEORGIA COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of March 23, 2007; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 19th day of April, 2007.

STEVEN RAY GREEN, CCR CERTIFIED MERIT COURT REPORTER CERTIFICATE NUMBER: A-2102