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18:20:42 6 RESTORATION ADVISORY BOARD MEETING

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18:20:42 9 WEDNESDAY, JULY 25, 2001

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18:20:42 12 NATIONAL CITY, CALIFORNIA

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18:20:42 22 REPORTED BY: Nancy A. Lee, CSR No. 3870

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18:20:42 1 A T T E N D A N C E

18:20:42 2 NAVY REGION SOUTHWEST: Ms. Theresa Morley  
18:20:42 Capt. L.R. Hering

18:20:42 3

18:20:42 SOUTHWEST DIVISION NAVAL  
18:20:42 4 FACILITIES ENGINEERING  
18:20:42 COMMAND: Mr. Dareen Belton  
18:20:42 5 Mr. Julius Miller  
18:20:42 Mr. Edward Dias

18:20:42 6

18:20:42 7 DTSC: Mr. Douglas Bautista  
18:20:42 Ms. Leticia Hernandez

18:20:42 8

18:20:42 BECHTEL NATIONAL: Mr. Jerald Bailey  
18:20:42 9 Mr. Pete Stang  
18:20:42 Ms. KAREN G. Collins  
18:20:42 10 Ms. Hamide Kayaci

18:20:42 11 FOSTER WHEELER: Mr. Glenn Starr

18:20:42 12 PUBLIC ATTENDANCE: Ms. Helen Bourne  
18:20:42 Ms. Anita Boyd  
18:20:42 13 Nr. Bill Kinney  
18:20:42 Ms. Nancy Lee  
18:20:42 14 Ms. Nohelia Ramos

18:20:42 15 RAB MEMBERS: Mr. Peter Bishop  
18:20:42 Mr. Jerry McNutt  
18:20:42 16 Ms. Rita McIntyre

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18:20:42 1 NATIONAL CITY, CA. WED., JULY 25, 2001, 6:40 P.M.

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18:34:43 3 MS. MORLEY: Thanks everyone for coming, and

18:34:49 4 it's supposed to cool down. I know it's a little

18:34:50 5 warm. I apologize, but we're working on that.

18:34:53 6 Most of the people you know, but there's a

18:34:56 7 few new people. Hamide Kayaci, and she's from

18:35:02 8 Bechtel, so she'll be helping us.

18:35:05 9 Leticia Hernandez is replacing Holly Kress

18:35:05 10 as our Public Participation Specialist for DTSC, so

18:35:05 11 she is our new person.

18:35:12 12 And we're working on another fact sheet.

18:35:15 13 Remember how we used to send out those fact sheets?

18:35:15 14 So we're working on an update to the fact sheet, and

18:35:19 15 that should be out probably in another month or so.

18:35:23 16 You guys know Doug and Pete and Glenn.

18:35:23 17 I think you remember Glenn Starr from

18:35:23 18 Foster Wheeler. He'll be bringing us an update

18:35:27 19 about Sub-Site 2A.

18:35:34 20 You know Jerry and Ed.

18:35:34 21 Julius Miller. Actually, he used to have

18:35:37 22 my job at Naval Station like nine years ago, and he

18:35:41 23 went to Southwest Div, and now he's back. And he's

18:35:45 24 temporarily replacing Kathie Beverly, but we're

18:35:50 25 hoping that will become permanent because Julius

18:35:52 1 knows the Naval Station very well. He knows our  
18:35:54 2 priorities and all that stuff, and he used to be in  
18:35:57 3 the Navy. He knows Captain Hering very well.

18:36:04 4 And, of course, you all remember Captain  
18:36:06 5 Hering, the Commanding Officer.

18:36:06 6 And Nancy is from DSP, which is our  
18:36:10 7 contractor to take the meeting minutes.

18:36:12 8 William Kinney is from Southwestern  
18:36:14 9 College, and he's here as a public member to observe  
18:36:18 10 and all that stuff.

18:36:20 11 And you know Pete Bishop.

18:36:21 12 Unfortunately, George Buben had to resign.  
18:36:25 13 He started taking Bible study classes that were  
18:36:27 14 interfering with the RAB dates, so he said he's  
18:36:29 15 going to try to come or if we need him to review a  
18:36:31 16 document, he's still willing to do that, but he  
18:36:31 17 won't be able to attend RAB meetings, which was sad  
18:36:36 18 because he was lively.

18:36:40 19 And Jim Mullins is excused today.

18:36:40 20 I'm going to pass this around. Remember  
18:36:48 21 our interdisciplinary curriculum that we had done  
18:36:50 22 before that you guys are all proud of? We took this  
18:36:54 23 to one of our trainings where Alvin Chung, who works  
18:36:57 24 for the EPA, and he's also with the Department of  
18:37:01 25 Public Health Services which is a department -- it's

18:37:02 1 a military department underneath the transportation?  
18:37:09 2 They wear uniforms. They look like Coast Guard kind  
18:37:13 3 of. And he's really good, Captain Chung. He does a  
18:37:15 4 lot of EPA trainer/trainer classes, and he does a  
18:37:20 5 lot of risk communication. He is very well known in  
18:37:23 6 the environmental field, and especially around the  
18:37:26 7 Navy. So he sent back comments on our curriculum,  
18:37:30 8 and he really liked it, and he wanted some copies to  
18:37:32 9 hand out to people, so we're going nationwide.

18:37:37 10           The other thing I wanted to say is we now  
18:37:39 11 have a Spanish translation of that curriculum. We  
18:37:44 12 had a contractor put it in -- I'm not sure if it's  
18:37:49 13 called street Spanish or slang Spanish. It's not  
18:37:52 14 proper, stuffy -- not stuffy.

18:37:57 15           CAPT. HERING: Formal.

18:37:57 16           MS. MORLEY: Formal. And it's designed more so  
18:38:04 17 that it doesn't come across like lecturing or boring  
18:38:07 18 or something. It's more that people can relate to  
18:38:09 19 because it would be the language that they would use  
18:38:12 20 everyday.

18:38:13 21           One of the reasons that we did this was,  
18:38:13 22 one, because we have a largely Hispanic community  
18:38:13 23 and we want to reach out to them, but two, the Chief  
18:38:13 24 of Naval Operations saw the curriculum and they  
18:38:13 25 really liked it.

18:38:14 1                   And I don't know if you've heard about the  
18:38:14 2 Vieques Reservation in Puerto Rico and how the Navy  
18:38:14 3 has to leave and we're kind of in controversy with  
18:38:14 4 that. So Chief of Naval Operations came in and  
18:38:14 5 wanted to look at this and try a similar technique  
18:38:14 6 to reach the children at Vieques and try to bow out  
18:38:14 7 gracefully and talk about the things that are going  
18:38:14 8 to happen at the range and all that stuff, and then  
18:38:53 9 see if the children can talk to the parents because  
18:38:57 10 so far there hasn't been a lot of two-way  
18:38:58 11 communication.

18:39:00 12                   So we're really excited that this module  
18:39:03 13 seems to be making a lot more impact than just here  
18:39:06 14 in San Diego.

18:39:07 15                   And I only have three copies with me, so I  
18:39:10 16 don't know. Does anybody want a copy. It has a CD  
18:39:13 17 so you can make copies inside. They're up here if  
18:39:22 18 you guys want them. And Captain Hering is going to  
18:39:26 19 be even more famous than he was before over there.

18:39:33 20                   And then we also have the annual report  
18:39:35 21 from Congress that has all the bases -- all Air  
18:39:37 22 Force, Navy -- and it also has Naval Station. I  
18:39:46 23 don't know if you guys want these. If so, I have  
18:39:47 24 four copies here.

18:39:49 25                   Does anyone have comments other than Jerry

18:39:54 1 made a comment on last January's meeting minutes  
18:39:57 2 that we said the October meeting minutes were going  
18:40:01 3 to sent out, but he doesn't know if he did. So if  
18:40:03 4 someone could check to see if we did send out  
18:40:04 5 October 2000 meeting minutes, then we'll do that.  
18:40:08 6 Does anyone have any other comments on the  
18:40:11 7 January or April meeting minutes? Those are  
18:40:14 8 approved.  
18:40:15 9 And are you public members?  
12:05:12 10 MS. RAMOS: I'm representing the Environmental  
18:40:25 11 Health Coalition. I'm the new CLEAN campaign  
18:40:29 12 organizer. I'm Nohelia Ramos.  
18:40:42 13 MS. MORLEY: So do you work with Jill Williams?  
12:05:12 14 MS. RAMOS: Yes.  
18:40:47 15 MS. MORLEY: Actually, would you mind taking  
18:40:48 16 one of these to her because I was going to mail her  
18:40:48 17 one. This is the curriculum that we did for 7th and  
18:40:53 18 8th graders. That's the Spanish one -- we also have  
18:40:56 19 one in English -- and it uses the Naval Station's IR  
18:40:58 20 program as a background and it has a teaching module  
18:40:59 21 that's been approved by the San Diego Unified School  
18:41:03 22 District and is taught in two schools so far this  
18:41:08 23 summer. And it's kind of a way for us to reach  
18:41:11 24 people that maybe wouldn't come to these meetings.  
18:41:14 25 If we can get to their children, they might learn

18:41:14 1 more about the program and be interested.

18:41:19 2 Thank you for doing that.

12:05:12 3 MR. BISHOP: Have we gotten any feedback from  
18:41:22 4 the schools and the public?

18:41:25 5 MS. MORLEY: Yeah, they did, but it's called  
18:41:26 6 like a pre-post test. And they do -- they test the  
18:41:31 7 knowledge beforehand and then the knowledge  
18:41:33 8 afterwards, and it was 100 percent improvement. So  
18:41:36 9 basically they didn't know all that much about it,  
18:41:38 10 and then afterwards they had learned a lot from the  
18:41:42 11 experiments and stuff.

18:41:43 12 One of the assignments was to go meet with  
18:41:46 13 their parents and talk about the program and then  
18:41:48 14 report back. And the parents reported being very  
18:41:51 15 interested in the program and we got some new people  
18:41:54 16 added to the mailing list because of that, and they  
18:41:57 17 really like Captain Hering and his tour, and they  
18:41:59 18 came on board and looked at the recycling center and  
18:42:03 19 all that stuff. So that's the girls that you see.  
18:42:04 20 This is one of the schools on the front cover that  
18:42:07 21 was on their tour when we took that picture.

12:05:12 22 MR. BISHOP: Great.

18:42:14 23 MS. MORLEY: We're trying to get more teachers.

18:42:18 24 Pete, are you going to talk about Site 1?

18:42:23 25 MR. STANG: Thank you very much.

18:42:23 1 MS. MORLEY: Pete Stang is going to talk about  
18:42:23 2 the Site 1 and the Conceptual Site Model.

08:11:12 3 MR. STANG: Good evening. My name is Pete  
18:42:31 4 Stang. I'll be speaking briefly this evening on  
18:42:38 5 Installation/Restoration Site 1, the former ship  
18:42:38 6 repair basins.

18:42:57 7 Everybody knows where Naval Station is  
18:42:58 8 located, and Installation/Restoration IR Site 1 is  
18:43:02 9 located immediately south of the Mole Pier and south  
18:43:07 10 of Paleta Creek along the pier lines.

18:43:14 11 A brief history of  
18:43:16 12 Installation/Restoration Site 1: In 1986 the  
18:43:19 13 initial assessment study identified Ship Repair  
18:43:22 14 Basins 3 and 4. In 1993 a site inspection was  
18:43:26 15 completed on those two basins.

18:43:26 16 In 1997 a removal action was conducted at  
18:43:29 17 Basin 4 with the upper ten feet of soil throughout  
18:43:37 18 the majority of the basin -- approximately 80  
18:43:39 19 percent of the basin -- was removed as an immediate  
18:43:46 20 step to reduce the threat of human health impacts.

18:43:50 21 MS. MORLEY: Can you briefly remind them that  
18:43:54 22 that used to be 1 and 2 and now its 3 and 4?

08:11:12 23 MR. STANG: Thank you, Theresa.

18:44:00 24 Basins 3 and 4 were previously identified  
18:44:03 25 as Basin 3, the northern basin, and Basin 4, the

18:44:06 1 southern basin, for those of you who are familiar  
18:44:10 2 with the RSE that was conducted in the removal  
18:44:14 3 action on those basins, and maybe even a little  
18:44:17 4 additional background.

18:44:19 5           These basins were constructed somewhere  
18:44:22 6 between 1942 and 1943 with steel sheet pile walls  
18:44:28 7 but no bottom, essentially similar to a dry dock but  
18:44:32 8 no floor. No concrete, steel or otherwise  
18:44:34 9 constructed floor constructed directly into the  
18:44:39 10 former base sediments.

18:44:40 11           Ship repair activities similar to those  
18:44:43 12 that might have occurred in a dry dock but probably  
18:44:49 13 much smaller vessels on the order of yard oilers,  
18:44:52 14 barges, smaller vessels that wouldn't have sunk  
18:44:55 15 significantly deep into the sediments were repaired  
18:44:58 16 on a quick turn-around basis during the war years,  
18:45:02 17 and to some extent after the war years.

18:45:05 18           Following World War II, Basins 3 and 4  
18:45:08 19 were utilized as informal disposal areas where a  
18:45:13 20 series of both solid and liquid wastes were  
18:45:17 21 discharged into these basins until the 1970s at  
18:45:22 22 which time they were completely filled in and paved  
18:45:25 23 over for use as a parking lot.

18:45:27 24           Thank you for pointing that out, Theresa.

18:45:30 25           In 2000 the Removal Site Evaluation was

18:45:33 1 completed and finalized. In 1999 shortly before the  
18:45:39 2 2000 RSE finalization, two additional ship repair  
18:45:42 3 basins were identified -- identified on a 1946  
18:45:47 4 Station Condition Map as 1 and 2, and those are  
18:45:50 5 located to the north of Basins 3 and 4.

18:45:53 6           Currently the Navy and the RSE has  
18:45:58 7 recommended that further investigation is warranted  
18:46:01 8 for Site 1.

18:46:03 9           This is just a schematic, a site plan of  
18:46:08 10 the basins.

18:46:10 11           Basins 3 and 4 where the investigations  
18:46:13 12 have previously occurred are the former north basin  
18:46:17 13 and south basin. Basin 3 has not been excavated.

18:46:23 14           The upper 10 feet of the basin, although  
18:46:24 15 there is a waste that goes down at least 38 feet, is  
18:46:29 16 present in Basin 4, and the upper ten feet of most  
18:46:33 17 of Basin 4 but not the area immediately adjacent to  
18:46:37 18 the seawall or the keywall was left in place due to  
18:46:41 19 concerns for both utilities and failure of the  
18:46:46 20 keywall -- the structural tieback structure that  
18:46:49 21 secures the keywall to the land.

18:46:53 22           Basins 1 and 2 have a somewhat different  
18:46:56 23 history and no investigation to date. In essence,  
18:47:01 24 Basins 1 and 2 were operated from about 1942 or 1943  
18:47:08 25 until no later than June of 1946 when the Station

18:47:13 1 Condition Map indicates that they were discontinued  
18:47:16 2 and filled at that time. So apparently the 30-odd  
18:47:21 3 years of undocumented fill activities that occurred  
18:47:28 4 at Basins 3 and 4 did not occur at Basins 1 and 2.  
18:47:33 5 That in fact is confirmed at least as early as  
18:47:36 6 approximately 1951 by aerial photographs that  
18:47:40 7 indicate that these two basins are no longer present  
18:47:43 8 and it was in fact either a lay down yard or a  
18:47:48 9 parking area or other activities.

18:47:51 10           And as you can see, all four of these  
18:47:53 11 basins are located immediately adjacent to San Diego  
18:47:56 12 Bay and the keywall.

18:47:57 13           To summarize, no investigations have  
18:48:01 14 occurred to date for Basins 1 and 2. There are  
18:48:04 15 currently nine wells on site, and those are  
18:48:06 16 primarily located in and around Basins 3 and 4. The  
18:48:11 17 upper 10 feet of soil at Basin 4 is clean fill.

18:48:16 18           Contaminants of Concern or COCs for both  
18:48:17 19 soil and groundwater include PCBs, volatile organic  
18:48:21 20 compounds, metals, semi-volatile organic compounds,  
18:48:32 21 pesticides and herbicides.

18:48:32 22           In addition, there is localized low  
18:48:32 23 groundwater pH conditions that have been identified  
18:48:36 24 in the groundwater at Basins 3 and 4 with pH as low  
18:48:40 25 as approximately 3 in the groundwater near the

18:48:44 1 sidewalls of those basins.

18:48:46 2                   What is a conceptual site model? A  
18:48:49 3 conceptual site model essentially helps anybody --  
18:48:53 4 in this case, in particular the Navy -- with  
18:48:53 5 understanding the site and the contaminant migration  
18:48:56 6 and exposure pathways.

18:49:00 7                   For lack of a better term, it's a  
18:49:00 8 cartoon -- a sophisticated cartoon where you can  
18:49:03 9 look at the site and make some inferences. Is the  
18:49:07 10 site unpaved? Is there contaminated soil at the  
18:49:10 11 surface that might be available for rain taking the  
18:49:14 12 contaminated soil and having it drain to a body of  
18:49:19 13 water such as San Diego Bay? Is the site paved and  
18:49:21 14 does it not allow infiltration of rainwater? Is the  
18:49:28 15 site a protected wetland? What is it in three  
18:49:33 16 dimension? Is the groundwater deep or shallow? Is  
18:49:35 17 the contamination shallow and groundwater deep and  
18:49:38 18 maybe groundwater doesn't come into play at your  
18:49:40 19 site or are the contaminants in immediate contact  
18:49:46 20 with groundwater where groundwater can act as a  
18:49:49 21 pathway for contaminant migration?

18:49:52 22                   In our case the site is a paved parking  
18:49:54 23 lot, Basins 3 and 4. The basins have steel sheet  
18:50:00 24 pile sides and back that go deeper than the waste.  
18:50:04 25 The basin bottom is unlined, as we've discussed.

18:50:07 1 The fronts of the basins are enclosed by  
18:50:10 2 the former dual wall concrete caissons, essentially  
18:50:13 3 the plug that fit in front of what -- although  
18:50:18 4 individual wet docks, the equivalent of a dry  
18:50:19 5 dock -- so that when the water was pumped out,  
18:50:23 6 vessels could be repaired.

18:50:25 7 Those are still in place and supported by  
18:50:29 8 a concrete sill, essentially like the threshold  
18:50:31 9 underneath the door that supported that concrete  
18:50:35 10 dual wall caisson and then supported in front by the  
18:50:39 11 new keywall structure that was put in place in the  
18:50:42 12 early 1980s.

18:50:44 13 That sheet pile is driven to approximately  
18:50:47 14 60 feet below the current ground surface or  
18:50:51 15 approximately 22 feet below the bottom of the  
18:50:53 16 current waste.

18:50:55 17 This is a cross-section view, a  
18:51:00 18 cartoon, that shows the ground surface, San Diego  
18:51:04 19 Bay out here to the left, essentially this dual wall  
18:51:11 20 caisson that sat in front was basically the plug for  
18:51:15 21 the basin, with the driven steel sheet pile in front  
18:51:22 22 and then essentially a large piece of concrete that  
18:51:23 23 acted as the threshold or the sill for the basin.

18:51:30 24 If this were, say, Basin 4 where the  
18:51:35 25 excavation had occurred, formerly referred to as the

18:51:36 1 south basin, the upper ten feet of soil essentially  
18:51:42 2 right to the surface of groundwater has been  
18:51:46 3 excavated and removed, clean fill put back in its  
18:51:50 4 place and paved over, and it's currently in use as a  
18:51:54 5 parking lot.

18:51:55 6                   Some of what keeps the keywall -- the  
18:52:01 7 seawall from falling essentially into San Diego Bay  
18:52:04 8 is a series of structural supports. There's a steel  
18:52:09 9 tieback structure that comes back to a large  
18:52:12 10 concrete deadman that basically supports it. That  
18:52:17 11 deadman is supported by a series of compressional  
18:52:20 12 intentional piles that are driven significantly deep  
18:52:24 13 as well.

18:52:25 14                   In addition, there's a significant  
18:52:27 15 utility corridor that runs along the keywall, and as  
18:52:31 16 you might imagine, with all of that structured steel  
18:52:34 17 concrete in the ground makes investigation at times  
18:52:39 18 a rather difficult process to try and get some  
18:52:44 19 investigative points into the ground.

18:52:46 20                   And this is essentially our  
18:52:48 21 conceptual site model, and I'm going to turn the  
18:52:52 22 other light off as well here. Hopefully, that will  
18:52:52 23 show up a little bit better.

18:52:57 24                   What we have are the basins that are  
18:53:02 25 in place. This represents the caisson. Outside of

18:53:08 1 the caisson, again, is the steel sheet pile with a  
18:53:12 2 head wall and then the sheet pile.

18:53:15 3                   This is the bay bottom immediately  
18:53:19 4 outside of the keywall near Piers 10 and 11. It  
18:53:25 5 shows the paving, it shows that the precipitation  
18:53:28 6 essentially hits the pavement and runs off without  
18:53:33 7 percolating directly through the basins and the  
18:53:34 8 wastes that are left in place, and it really  
18:53:39 9 provides and gives us -- and, again, also with the  
18:53:43 10 concrete and asphalt surface minimizes any possible  
18:53:48 11 volatile organic compound discharging into the  
18:53:52 12 atmosphere that could be a problem for exposure to  
18:53:56 13 either human health and the environment, and really  
18:53:58 14 gives us an understanding that the most likely  
18:54:00 15 contaminant pathway toward either human health or  
18:54:05 16 ecological receptor problem is groundwater transport  
18:54:11 17 of chemicals from the solid waste into the  
18:54:13 18 groundwater and then presumably either under or to a  
18:54:19 19 much lower but still a possible level through the  
18:54:24 20 keywall itself.

18:54:25 21                   Essentially it gives us a good  
18:54:30 22 talking point with our regulatory agency partners,  
18:54:34 23 with the Navy, with other contractors to explain it,  
18:54:38 24 discuss it, and determine where and how we should  
18:54:42 25 conduct our investigation.

18:54:44 1 And the site conditions: Paved, so  
18:54:49 2 no surface water or aeolean or transport by the wind  
18:54:53 3 of fine particulate matter.

18:54:55 4 The soil is contained laterally by  
18:54:55 5 steel sheet pile and/or concrete, and that pile acts  
18:54:59 6 as either a partial or complete barrier to shallow  
18:55:04 7 advective groundwater flow.

18:55:07 8 The potential primary pathway of  
18:55:09 9 concern is the downward migration from the basins of  
18:55:11 10 the groundwater and seepage to the bay below  
18:55:15 11 60 feet. And, again, just to reiterate the slide  
18:55:20 12 that shows that in particular, this is the pathway  
18:55:26 13 that in our interpretation of site conditions is the  
18:55:28 14 most likely method of contaminant transport toward a  
18:55:33 15 receptor.

18:55:34 16 Data quality objectives: Data quality  
18:55:36 17 objectives also are a tool to help us focus the  
18:55:43 18 investigation that we plan and to determine where  
18:55:46 19 we're going to go. In essence, giving us a road map  
18:55:51 20 on how to collect the right data to get the answers  
18:55:55 21 we need to move forward in the investigation and get  
18:55:58 22 these sites cleaned up or put in a position where  
18:56:03 23 they don't represent any potential present or future  
18:56:08 24 threat to the environment or human health.

18:56:11 25 It's an EPA process. It's

18:56:13 1 quantitative or qualitative statements that specify  
18:56:15 2 the quality of data required for a project. It's  
18:56:18 3 been developed by the USEPA. It's a 7-step process,  
18:56:23 4 and it's designed to focus the investigation or  
18:56:25 5 cleanup to make sure the correct data are collected.  
18:56:28 6                   The seven steps are essentially state  
18:56:31 7 the problem, number one.  
18:56:35 8                   No. 2, develop the decision  
18:56:37 9 questions.  
18:56:38 10                   No. 3, develop the data or the inputs  
18:56:41 11 to help make those decisions.  
18:56:44 12                   No. 4, define the study area  
18:56:46 13 boundaries -- where and when.  
18:56:51 14                   Step 5, decision rules, which are  
18:56:53 15 essentially a series of if/then statements.  
18:56:57 16                   No. 6, determining what limits we  
18:56:58 17 want to place on our decision errors. Is it okay to  
18:57:03 18 be 80 percent certain? 90 percent certain? What  
18:57:07 19 level of certainty do you want to have in your  
18:57:11 20 investigation to, number one, make sure that you  
18:57:13 21 don't have a false positive event -- in other words,  
18:57:16 22 my site's clean but I think it's dirty -- or a false  
18:57:21 23 negative event where my site is dirty but my  
18:57:26 24 investigation indicates that it's actually clean,  
18:57:26 25 and what are acceptable limits?

18:57:32 1 And No. 7, optimizing and sampling  
18:57:34 2 the site. Essentially once you go through your  
18:57:34 3 first six steps and decide what it is you need to  
18:57:39 4 do, how you're going to do it, how are you going to  
18:57:43 5 optimize? How are you going to get the most bang  
18:57:46 6 for your buck?

18:57:47 7 For Basins 3 and 4 where we already  
18:57:49 8 have a significant amount of information, I've gone  
18:57:54 9 through what our current DPDOs are in consultation  
18:57:58 10 with the Navy.

18:58:00 11 One, our problem statement obviously  
18:58:02 12 will be greater, and these in general turn out to be  
18:58:07 13 a couple page, two large table type -- but in  
18:58:09 14 summary, for Basins 3 and 4 contaminated groundwater  
18:58:14 15 is present, and our focus for Basins 3 and 4 will be  
18:58:19 16 further assessment of groundwater conditions at  
18:58:22 17 Basins 3 and 4.

18:58:24 18 Our decision questions: What are the  
18:58:27 19 extent of our Contaminants of Concern? What is  
18:58:30 20 their extent both horizontally north, south, and  
18:58:32 21 east of the basins, but how deep does the  
18:58:37 22 contamination go as well?

18:58:41 23 Three, what are the inputs? Well,  
18:58:44 24 the inputs to our investigation will be the result  
18:58:47 25 of putting in borings to determine more specifically

18:58:54 1 the site geology, installation of wells to collect  
18:58:57 2 groundwater data, what that chemical data tells us,  
18:59:02 3 and the criteria that we compare it against.

18:59:04 4                   In other words, if I detect metals --  
18:59:08 5 well, metals are ubiquitous. They're everywhere in  
18:59:10 6 groundwater. Even in the groundwater that comes out  
18:59:11 7 of a pristine artesian well in the mountains has  
18:59:19 8 some level of metals in it. So we need to know what  
18:59:22 9 those metals represent. Do they represent ambient  
18:59:26 10 concentrations that we would find at a  
18:59:28 11 non-contaminated site or are those concentrations of  
18:59:31 12 metals that represent contamination may be present?  
18:59:39 13 Essentially what is the criteria?

18:59:40 14                   For Naval Station there are  
18:59:40 15 background concentrations established for seven or  
18:59:48 16 eight metals. And we know if they're greater than  
18:59:50 17 that amount, it is likely to represent  
18:59:51 18 contamination. If it's less than that amount in the  
18:59:55 19 groundwater sample, it's probably similar to the  
18:59:59 20 seawater conditions associated with the groundwater  
19:00:02 21 in the western part of Naval Station.

19:00:06 22                   What are the boundaries of our  
19:00:07 23 investigative area both in space and time? We want  
19:00:11 24 to know, for instance, would you take your samples  
19:00:13 25 at high tide? Low tide? Does it matter what tide?

19:00:18 1 And in space do we want to investigate 10 or 20 feet  
19:00:23 2 away from the basins or several hundred feet away  
19:00:26 3 from the basins? What essentially do we define so  
19:00:30 4 that we have a well-thought out, well-developed  
19:00:34 5 investigation before we put our first hole in the  
19:00:36 6 ground and collect our first sample?

19:00:38 7                   As I mentioned earlier, No. 5 is  
19:00:40 8 decision rules, a series of if/then statements. If  
19:00:43 9 we go out and perform our investigation and we find  
19:00:47 10 that risk is at an acceptable level based on, let's  
19:00:51 11 say the NCP, the National Contingency Plan, where  
19:00:56 12 risk is acceptable under the criteria of one in a  
19:01:01 13 million cancer risk in a hazard index less than 1  
19:01:05 14 for exposure to human health, then there's no human  
19:01:09 15 health problem, then we don't have a problem and we  
19:01:14 16 can exit. Or if we find the contamination is  
19:01:19 17 excessive and represents a risk greater than 1 times  
19:01:23 18 10 to the minus 4th or one cancer risk in 10,000, we  
19:01:27 19 do a have significant problem and we need to move on  
19:01:31 20 to somehow alleviate that risk in the process.

19:01:35 21                   Six, the error limits. Define what  
19:01:39 22 is acceptable. Again, is 80 percent acceptable? Is  
19:01:42 23 90 percent acceptable? Defining that up front.

19:01:46 24                   And finally, the design --  
19:01:48 25 where/when/how/how many samples, what are we going

19:01:52 1 to analyze for, what aren't we going to analyze for,  
19:01:54 2 where are we going to analyze for it, and the like.

19:01:58 3 I'd be happy to entertain any  
19:02:01 4 questions. Thank you for your time.

19:02:20 5 MS. McINTYRE: I'm sorry I missed the  
19:02:28 6 first part of your presentation.

19:02:28 7 Historically don't they already have a lot  
19:02:30 8 of data that you're able to use? I mean, I missed  
19:02:36 9 the first part so is this a brand new data quality  
19:02:41 10 objective where you're going to go back and  
19:02:43 11 evaluate, and using that historical data of that  
19:02:48 12 site and incorporate that, which should make it less  
19:02:53 13 that you have to do.

19:02:55 14 MR. STANG: We certainly plan to use the data  
19:02:58 15 we have to help us focus the current investigation.  
19:03:02 16 We're not going out at Basins 3 and 4 assuming that  
19:03:03 17 there is no information.

19:03:08 18 The information that came out of the  
19:03:12 19 removal site evaluation that was finalized last year  
19:03:17 20 did provide some information that under a very  
19:03:23 21 conservative assessment of site conditions, there is  
19:03:26 22 a possible risk to San Diego Bay. That's not to say  
19:03:34 23 that there is contamination reaching San Diego Bay.  
19:03:37 24 We don't know that. But the Navy at this point  
19:03:40 25 cannot conclude at the degree of certainty that they

19:03:46 1 need to that they are not having an impact on San  
19:03:48 2 Diego Bay, and that's why they recommended the  
19:03:50 3 further action for Basins 3 and 4.

19:03:54 4           Now, Basins 1 and 2 I talked a little bit  
19:03:54 5 about -- and I'm not sure exactly when you came in,  
19:03:57 6 Rita. Basins 1 and 2 have had no investigation  
19:04:01 7 associated with them whatsoever, and it really just  
19:04:05 8 became apparent in the past two years, since 1999,  
19:04:08 9 that the Navy going through some of their archival  
19:04:12 10 information identified those basins on a single  
19:04:16 11 aerial photograph, and one former station condition  
19:04:22 12 map.

19:04:23 13           We don't know what was put in Basins 1 and  
19:04:25 14 2. We do know that it wasn't filled over 30 years  
19:04:29 15 such as Basins 3 and 4 were. It might be a fairly  
19:04:35 16 clean dredge material or other inert material that  
19:04:38 17 may not pose a risk. But because of the industrial  
19:04:43 18 nature of the site, the Navy has recommended that  
19:04:46 19 they conduct a site inspection level, which is less  
19:04:51 20 than an RI level.

19:04:52 21           Essentially the goal of the SI for Basins  
19:04:55 22 1 and 2 will be a much more limited investigation to  
19:05:01 23 determine whether a release did occur rather than  
19:05:05 24 what is the complete nature and extent. In order to  
19:05:10 25 both save time and money and make that decision the

19:05:16 1 correct path at this point is to, again, in the site  
19:05:19 2 inspection simply determine if a release occurred at  
19:05:23 3 those two basins because we do not have any  
19:05:26 4 information at this point.

12:05:12 5 MS. McINTYRE: Thank you.

19:05:31 6 MR. STANG: Thank you very much.

19:05:37 7 And stepping in for Theresa, I think our  
19:05:37 8 next presenter is Karen Collins with Bechtel, Navy  
19:05:44 9 Clean.

08:11:12 10 MS. COLLINS: I've got some handouts of the  
19:06:11 11 presentation and the conceptual site model for Site  
19:06:16 12 4. The presentation is identical to what's on the  
19:06:28 13 screen, just for your reference.

19:06:41 14 We're in the process of planning stages  
19:06:41 15 for conducting a Remedial Investigation for IR Site  
19:06:45 16 4, and I know that's a dyslectic nightmare -- IR/RI.  
19:06:51 17 What is it?

19:06:51 18 We're doing a Remedial Investigation for  
19:06:53 19 IR Site 4. It's the former DPDO storage yard. It's  
19:06:54 20 actually on the dry side of the base across Harbor  
19:07:00 21 Drive.

19:07:02 22 Naval Station, the same map that Pete  
19:07:02 23 showed. Site 1, where we were discussing, is here;  
19:07:08 24 Site 2 is here. Site 4 is across Harbor, which is  
19:07:14 25 here, between Harbor Drive if you follow the tracks

19:07:17 1 and north of Paleta Creek.

19:07:25 2 Site 4 is a large site. It's 14

19:07:27 3 acres. I think it's the second largest site

19:07:30 4 aerially on Naval Station bounded again by Harbor

19:07:35 5 Drive. The northern portion of the site was paved

19:07:38 6 in 1975. Apparently it's used for a recycling

19:07:42 7 storage of Department of Defense property and

19:07:47 8 warehousing.

19:07:49 9 The site is pretty flat. It's been

19:07:52 10 graded a little bit, mostly for surface water

19:07:53 11 control.

19:07:56 12 There are two warehouses, Buildings

19:07:59 13 249 and 250, located roughly in the center on the

19:08:01 14 eastern portion of the site in an unpaved area, and

19:08:06 15 they are used to store batteries and high scrap

19:08:11 16 metal.

19:08:11 17 And the recycling area is located

19:08:14 18 generally north of the warehouses. Actually, it's

19:08:18 19 visible from Harbor Drive the next time you're

19:08:22 20 making the trip.

19:08:23 21 The history of Site 4 in a nutshell:

19:08:26 22 Between 1943 and 1975 it was used for Navy supplies

19:08:30 23 storage, and the reason the site was identified in

19:08:34 24 the IAS in 1986 was because in those early years it

19:08:39 25 was estimated that somewhere between 35,000 and

19:08:42 1 75,000 gallons of oil were used to suppress dust  
19:08:46 2 over the site. That was common practice.  
19:08:50 3 Obviously, it's not done now because we know better,  
19:08:52 4 but between '43 and '75 that was the standard  
19:08:56 5 operating procedure for dirt sites.

19:09:00 6 Also, in the IAS it was noted that  
19:09:02 7 there were leaking containers of electrical  
19:09:05 8 insulating oil stored on the site, and that was in  
19:09:08 9 the 1970s. Additionally, there were drummed paints,  
19:09:09 10 lubrication oils, and PD-680 which is a  
19:09:14 11 non-chlorinated solvent also stored at the site.

19:09:18 12 Between 1975 and 1981 the site was  
19:09:22 13 used as currently for DPDO storage, and from 1981 to  
19:09:30 14 the present the southern portion of the site was  
19:09:31 15 divided off, and it's been used to store landing  
19:09:35 16 craft.

19:09:37 17 Previous Investigations: In 1986 the  
19:09:41 18 NEESA report, the Initial Assessment Study, was the  
19:09:43 19 study where the site was identified along with the  
19:09:47 20 other sites, 1 through 6, the first of the Navy  
19:09:49 21 stations -- Naval Station IR sites.

19:09:53 22 In 1987 a geotechnical and soil  
19:09:55 23 contamination investigation was conducted because  
19:09:58 24 the site was being considered as a new location for  
19:10:05 25 the fire-fighter training area. It ended up not

19:10:06 1 being relocated as that FTA, actually Site 8, but it  
19:10:11 2 was under consideration in 1987.

12:05:12 3 CAPT. HERING: It was relocated to an alternate  
19:10:17 4 site.

08:11:12 5 MS. COLLINS: And in 1992 IT conducted a site  
19:10:23 6 inspection, and in 2000 the Removal Site Evaluation  
19:10:28 7 for Sites 1, 2, and 4 was finalized.

19:10:33 8 This is a map of Site 4. Basically  
19:10:39 9 the fence line doesn't show up very well, but the  
19:10:42 10 fence line is roughly here, and the landing craft  
19:10:45 11 are stored in the southern portion of the site.  
19:10:47 12 These are the warehouses 249 and 250. The entrance  
19:10:49 13 to the site is right here. There's a paved drive.  
19:10:54 14 And this concrete pad is where most of the recycling  
19:10:55 15 activity takes place, and there's a small office  
19:11:03 16 right here.

19:11:08 17 Unfortunately, this washes out, but  
19:11:09 18 this is the cartoon that you have in hand. And  
19:11:17 19 basically in developing this conceptual site  
19:11:23 20 model -- part of the central purposes for developing  
19:11:30 21 the conceptual site model are to identify  
19:11:34 22 contaminant transport mechanisms and potential  
19:11:38 23 receptors both human and environmental.

19:11:42 24 The pathways are the colored arrows.  
19:11:44 25 They're kind of vectors, and the dark purple is

19:11:48 1 rainfall or infiltration. The blue kind of squiggly  
19:11:54 2 arrows are aeolean transport or wind blown transport  
19:12:00 3 in the unpaved portion of the site, and then the  
19:12:02 4 blue arrows are the surface water runoff.

19:12:06 5                   Site 4 currently is graded so that  
19:12:09 6 surface water falling off of the site in the form of  
19:12:11 7 rain generally is directed off-site to the south.  
19:12:12 8 Here there are three outfalls: one to the south, one  
19:12:19 9 here, and another third about midway up the northern  
19:12:23 10 portion of the site. And these drain -- these two  
19:12:26 11 drain into a ditch and this portion outfalls here.

19:12:37 12                   The conceptual site model, again, is  
19:12:44 13 just sort of a helpful cartoon that's developed in  
19:12:45 14 the planning stages of the Remedial Investigation to  
19:12:53 15 help identify known or expected locations of  
19:12:55 16 contaminants based on a considerable amount of data  
19:12:59 17 that we already have in hand, identifying potential  
19:13:02 18 sources of contaminants and potential transport  
19:13:06 19 pathways, the media that are impacted, and at Site 4  
19:13:08 20 we know that soil and groundwater are impacted, and  
19:13:13 21 then using that information to determine receptors  
19:13:15 22 and exposure scenarios.

19:13:19 23                   Transport pathways that have been  
19:13:20 24 preliminarily identified at Site 4 include the  
19:13:25 25 surface water runoff that we just talked about from

19:13:27 1 the unpaved portions of Site 4. Generally the  
19:13:32 2 southern portion is unpaved, and that area flows  
19:13:36 3 into the storm drain channels, and that southern  
19:13:41 4 storm drain channel outfalls into Paleta Creek. The  
19:13:45 5 two along the western margin of the site outfall  
19:13:48 6 into a ditch that flows into Paleta Creek.

19:13:53 7                   Really in the scheme of things, very,  
19:13:57 8 very minor potential for wind-born migration of  
19:14:01 9 shallow soil contaminants to the atmosphere, and an  
19:14:07 10 even more minor potential for offgassing of  
19:14:07 11 volatile organic compounds from groundwater through  
19:14:11 12 the vadose zone into the atmosphere.

19:14:15 13                   We know we have TCE in maybe 50 parts  
19:14:20 14 per billion in the middle monitoring well on the  
19:14:23 15 site. So it does happen -- offgassing does occur,  
19:14:27 16 but by the time those molecules travel through the  
19:14:28 17 10-foot soil column and then offgas into the  
19:14:32 18 atmosphere, it's accounted for in our risk  
19:14:34 19 assessment but it's very, very minor.

19:14:37 20                   Potential ecological receptors  
19:14:41 21 include a rare native salt marsh habitat that's  
19:14:43 22 identified in Paleta Creek -- actually, upgradient  
19:14:46 23 kind of where Paleta Creek dog legs. It's not  
19:14:51 24 adjacent to the site, but it's in the sphere of  
19:14:55 25 influence.



19:16:03 1 on-site workers in the unpaved portion of the site  
19:16:10 2 would have an opportunity for exposure to shallow  
19:16:14 3 contaminated soil. Again, the unpaved portion is  
19:16:17 4 generally in the southern half of the site.

19:16:21 5           Looking at future potential scenarios:  
19:16:23 6 Construction workers, if there was a trenching  
19:16:30 7 project lines installed or something of that nature  
19:16:33 8 that would involve subsurface digging, those workers  
19:16:37 9 could be exposed in either the paved or the unpaved  
19:16:44 10 portions of the site.

19:16:47 11           And then depending on future scenarios, if  
19:16:54 12 something happens and changes life as we know it  
19:16:57 13 radically and Naval Station were to be a residential  
19:16:59 14 land use designation, then there may be residential  
19:17:05 15 receptors. That's one of the scenarios that will be  
19:17:11 16 considered in the risk assessment. It may not  
19:17:11 17 really be a viable one, but it's done as part of the  
19:17:16 18 practice.

19:17:17 19           The Data Quality Objectives for Site 4:  
19:17:21 20 Pete already introduced the seven steps that EPA  
19:17:25 21 follows.

19:17:27 22           The problem statement for Site 4 is pretty  
19:17:30 23 simple. Contaminated soil and groundwater are  
19:17:32 24 present. They've already been identified based on  
19:17:35 25 previous investigations.

19:17:37 1 The questions that we're identifying and  
19:17:40 2 addressing now are what are the nature and extent of  
19:17:42 3 the Contaminants of Concern and what is the risk to  
19:17:45 4 human health and the environment? We want to assign  
19:17:47 5 quantitative values to those risk numbers.

19:17:51 6 The inputs that we'll be using to factor  
19:17:58 7 into the RI questions are both chemical data and  
19:18:04 8 then regulatory criteria.

19:18:08 9 The boundaries of the site are basically  
19:18:11 10 the site boundary, and then we're going to step  
19:18:13 11 off-site to assess the potential off-site impact,  
19:18:17 12 and in time the study is planned for 2001 and 2002.

19:18:23 13 The decision rules are basically  
19:18:26 14 equivalent to what Pete introduced for Site 1, and  
19:18:31 15 that is to identify contamination and if the risk  
19:18:33 16 exceeds 10 to the minus 4, then we'll recommend  
19:18:35 17 action. If the risk is in the risk management range  
19:18:39 18 10 to the minus 4, 10 to the minus 6, we'll  
19:18:42 19 negotiate an appropriate response with the  
19:18:45 20 regulatory agencies and the community. And if the  
19:18:48 21 risk is in the NCP generally acceptable criteria,  
19:18:51 22 less than one in a million cancer risk, hazard index  
19:18:51 23 less than 1, then no further action would be  
19:18:55 24 recommended.

19:19:00 25 Error limits: In structuring the design,

19:19:02 1 basically there are two sources of error, and in the  
19:19:08 2 design we're basically addressing the design errors,  
19:19:10 3 and that's what Pete talked about. We want to  
19:19:13 4 structure a sampling scheme that will give us at  
19:19:17 5 least a 90 and optimally a 95 percent confidence  
19:19:21 6 that we are not going to miss contamination -- in  
19:19:24 7 other words, the false negative.

19:19:30 8               You drill, let's say, two holes in the  
19:19:31 9 site. They both come up clean. You make a  
19:19:32 10 determination on a 14-acre site that "It's clean."  
19:19:33 11 And we want to optimize the study so that we come up  
19:19:41 12 with an appropriate number of samplings so that  
19:19:43 13 we're ensured that we're going to be making sound  
19:19:45 14 conclusions.

19:19:47 15               The measurement error is actually when you  
19:19:51 16 get to the field. We'll be following standard  
19:19:53 17 operating procedures that have been developed and  
19:19:56 18 have been shared with DTSC and EPA for collecting  
19:19:59 19 field data in analyzing samples.

19:20:02 20               The design when/where/how many/and how the  
19:20:09 21 samples will be collected, those details will be  
19:20:11 22 included in the RI work plan.

19:20:14 23               Basically the RI strategy is designed to  
19:20:18 24 support the risk assessment -- the human health and  
19:20:20 25 ecological risk assessments that were discussed.

19:20:25 1                   Soil samples will be collected to  
19:20:28 2 characterize both the nature and the extent of  
19:20:31 3 contamination.

19:20:33 4                   Three existing monitoring wells are  
19:20:35 5 already on Site 4, and we're going to augment that  
19:20:39 6 coverage with up to 12 new monitoring wells. That  
19:20:42 7 number may be -- we may not need that many,  
19:20:46 8 depending on the results of the soil investigation.

19:20:51 9                   And one of the other open questions is we  
19:20:53 10 need to determine how much hydraulic communication  
19:20:56 11 there is between Paleta Creek and groundwater  
19:21:00 12 underlying Site 4. We know that the groundwater is  
19:21:04 13 tidally influenced -- in other words, when the tide  
19:21:06 14 is high, groundwater kind of sloshes north; and when  
19:21:10 15 the tide is low, groundwater sloshes south. It's  
19:21:13 16 generally localized around the southern portion of  
19:21:14 17 the site where it's more adjacent to Paleta Creek.

19:21:20 18                   So we know that the site is tidally  
19:21:21 19 influenced. The question is if we have contaminated  
19:21:24 20 groundwater, is that impacting Paleta Creek? So  
19:21:28 21 that's one of the questions that we're going to be  
19:21:31 22 addressing in this study.

19:21:33 23                   And then we're going to collect off-site  
19:21:38 24 surface soil samples to assess any potential  
19:21:39 25 off-site impact.

19:21:43 1 And that's it in nutshell. Any questions  
19:21:49 2 or comments?

19:21:49 3 MR. BISHOP: Where do you intend to collect  
19:21:51 4 those off-site soil samples?

19:21:55 5 MS. COLLINS: Back to the conceptual site  
19:22:03 6 model. I mentioned the storm water outfalls --  
19:22:11 7 actually, here's the dry dock -- these are dry and  
19:22:13 8 they're actually just little kind of low spots in  
19:22:19 9 the surface; and when it rains, the water -- the  
19:22:23 10 site is kind of sloped such that surface water in  
19:22:27 11 roughly the third -- upper third drains out of this  
19:22:32 12 outlet, and the central portion drains to this one,  
19:22:38 13 and then this other unpaved portion drains out to  
19:22:40 14 the outfall near Paleta Creek.

19:22:42 15 So our strategy is that -- and this is  
19:22:46 16 still on the table and we're refining the strategy  
19:22:47 17 internally, but we want to focus on the areas  
19:22:53 18 adjacent to the outfalls and identify if there's any  
19:22:59 19 chemical indicators that suggest that there's a  
19:23:02 20 contribution from Site 4.

19:23:04 21 It's going to be tough because the next  
19:23:06 22 time you're on Harbor Drive and if you have a chance  
19:23:09 23 to stop and slow down or even get out and walk along  
19:23:13 24 this ditch -- there's actually two ditches. The  
19:23:16 25 railroad runs right here adjacent to the site, and

19:23:18 1 there's two ditches, one on either side of the  
19:23:20 2 railroad, and both of them are just jammed with  
19:23:25 3 mattresses, beach balls, tricycles, you name it.  
19:23:31 4 Oil cans. There's a lot of evidence of dumping --  
19:23:34 5 just urban dumping.

19:23:36 6 MR. BISHOP: So my next question was if you  
19:23:38 7 find contamination at these off-site samples, then  
19:23:42 8 how do you know where it comes from?

19:23:46 9 CAPT. HERING: It's Caltrans' problem.

19:23:47 10 MS. COLLINS: We've been discussing that  
19:23:50 11 internally, and the biologist statistician who's on  
19:23:56 12 board as part of the development team has suggested  
19:23:59 13 that we actually take five samples from the ditch  
19:24:02 14 adjacent to Site 4 and five samples from the ditch  
19:24:06 15 that's on the other side of the railroad tracks. It  
19:24:09 16 runs the same extent of the north/south terrain but  
19:24:14 17 it's separated by the railroad berms from Site 4.

19:24:18 18 So one of the ideas that we're batting  
19:24:20 19 around is do an analysis of variance, which is just  
19:24:22 20 a statistical test to determine if the population to  
19:24:26 21 data set from the Site 4 ditch is comparable, the  
19:24:31 22 same, or if it's very different from the ditch  
19:24:34 23 that's independent of Site 4.

19:24:37 24 MR. BISHOP: Where are you going to take your  
19:24:38 25 samples in Paleta Creek?

19:24:40 1 MS. COLLINS: Paleta Creek is a little more  
19:24:42 2 complicated. What we'd like to do there is the same  
19:24:48 3 statistical analysis and also the variance for  
19:24:51 4 ANOVA, but collect five samples along Paleta Creek  
19:24:58 5 adjacent to Site 4 near this outfall, compare that  
19:25:03 6 to the data set that's being collected for the bay  
19:25:04 7 toxic hot spot; and see, again, if the  
19:25:11 8 concentrations that we're seeing in this area are  
19:25:16 9 part of the ambient background contamination that we  
19:25:19 10 know is in Paleta Creek, or if there's a localized  
19:25:25 11 area that looks like maybe there's a contribution  
19:25:26 12 there from Site 4.

19:25:29 13 If the compounds of concern match and if  
19:25:31 14 there's a gradient in the concentrations that  
19:25:34 15 suggest that that's a potential source, then that  
19:25:37 16 would be something that we would evaluate.

19:25:39 17 MR. BISHOP: We did more than five samples. I  
19:25:40 18 wouldn't want to compare the outfall there to the  
19:25:44 19 conditions in the bay where things are fairly  
19:25:46 20 dilute.

19:25:48 21 I would say sample back upstream of Paleta  
19:25:51 22 Creek.

19:25:53 23 MS. COLLINS: We have one up creek sample and  
19:25:54 24 then the others more localized right around the  
19:25:59 25 outfall.

19:26:02 1 MR. DIAZ: We are still at the planning stage.

19:26:05 2 We haven't decided anything about that yet.

08:11:12 3 MS. COLLINS: This is really -- that really

19:26:15 4 can't be clarified enough.

19:26:17 5 This is early, early planning, and these

19:26:18 6 are just some of the ideas that have been on the

19:26:21 7 table, and they're still being refined and we're

19:26:24 8 still looking to the agencies for input and have a

19:26:28 9 lot of --

19:26:29 10 MR. BISHOP: Is there not information available

19:26:31 11 on contamination at Paleta Creek? Has no one ever

19:26:34 12 done a study of that area?

19:26:36 13 MS. COLLINS: There's been a lot done. In

19:26:37 14 fact, a couple of years ago when we did the removal

19:26:38 15 action at Site 3, PCBs were one of the main drivers

19:26:42 16 there.

19:26:44 17 And as part of the data set that was

19:26:46 18 looked at for that study, we went upstream for a

19:26:49 19 background sample, and the highest PCB hit that we

19:26:53 20 had was the upstream background sample.

19:26:57 21 So there is data for Paleta Creek. The

19:26:59 22 usefulness is another question. It doesn't always

19:27:05 23 support the purpose at hand. And that sediment

19:27:12 24 issue is actually something that Theresa's been

19:27:15 25 involved in more directly, but it's kind of an

19:27:17 1 ancillary part of this RI. It's an important part  
19:27:20 2 but that is off-site and once you leave the site  
19:27:23 3 boundaries, that's outside the fence line, the Navy  
19:27:26 4 really has kind of limited control over what happens  
19:27:29 5 there.

19:27:38 6 Thank you.

19:27:40 7 MS. MORLEY: Glenn Starr from Foster Wheeler is  
19:27:42 8 going to talk about the removal action that's still  
19:27:45 9 going on at Sub-Site 2A.

18:44:10 10 MR. STARR: I just want to start out with a  
19:27:52 11 little bit of a history on the site usage of  
19:28:15 12 Sub-Site 2A.

19:28:16 13 The Mole Pier was created by hydraulic  
19:28:18 14 fill, and from approximately 1945 to 1972 the Mole  
19:28:28 15 Pier was used for disposal and open burning of  
19:28:29 16 debris. As part of the accelerant to help that open  
19:28:32 17 burning, the Navy used gasoline, motor oil and  
19:28:32 18 diesel, and the area after its use in 1972 was  
19:28:39 19 covered with fill in 1975.

19:28:42 20 Contaminants of Concern that were  
19:28:47 21 identified at this site were arsenic, hexavalent  
19:28:47 22 chromium, dioxins, lead, and various what we call  
19:28:54 23 polynuclear aromatic hydrocarbons or PAHs.

19:29:00 24 As part of the original investigation that  
19:29:02 25 was performed by Bechtel, they completed the

19:29:06 1 Engineering Evaluation/Corrective Action plan or  
19:29:08 2 what we call an EE/CA in August of 1999. That was  
19:29:13 3 followed by the Action Memo which was signed on  
19:29:15 4 December 10, 1999. We thought we were developing  
19:29:19 5 the final Removal Action Implementation Plan in  
19:29:23 6 parallel with Bechtel's action, and we completed  
19:29:24 7 that at the same day that the Action Memo was  
19:29:26 8 signed.

19:29:27 9               With the memo signed on the 10th of  
19:29:31 10 December, we got to the field on the 2nd of January  
19:29:34 11 2000 and commenced the removal action.

19:29:36 12               Some important project milestones: about  
19:29:42 13 six to seven months after we started, the site  
19:29:44 14 boundaries had expanded and the Navy Public Works  
19:29:45 15 Center also entered the site on the end of June 2000  
19:29:50 16 to assist with removal of contaminated soils.

19:29:53 17               I'll talk some more about the next two  
19:29:55 18 bullets a little bit later, but we did some  
19:29:56 19 additional sampling in the former collection of  
19:29:59 20 storage and transfer facility, which is also in  
19:30:03 21 Sub-Site 2A but directly east of our excavation  
19:30:05 22 boundary. That's the old haz waste yard. And based  
19:30:09 23 on results from that sampling, we did some  
19:30:10 24 additional sampling just to the south of the CST of  
19:30:16 25 what we call Phase 6.

19:30:19 1 As part of our original removal action we  
19:30:22 2 completed all the excavation activities in what we  
19:30:25 3 call Phases 1 through 5, and without getting into a  
19:30:28 4 lot of history here, we originally started out with  
19:30:31 5 a 2-phase approach for the excavation because we  
19:30:32 6 were trying to work around an active paint shop  
19:30:35 7 facility right smack dab in the middle of the site.

19:30:38 8 And as things progressed, a decision was  
19:30:38 9 made by the Navy to remove that paint shop, and  
19:30:43 10 every time we stepped out, we just gave it a new  
19:30:43 11 phase number. So we started with 1 and 2; we ended  
19:30:43 12 with 1 through 5.

19:30:43 13 But all that excavation was completed in  
19:30:51 14 March of this year. The site was fully restored in  
19:30:55 15 June, about six week ago, and we have gone to Phase  
19:31:00 16 6 and we started the excavation activities on June  
19:31:04 17 25th.

19:31:05 18 And maybe it'd be best if I showed  
19:31:07 19 this map right now. This is Sub-Site 2A. This is  
19:31:12 20 where we had done our original removal action. This  
19:31:15 21 is the former haz waste yard. And this is what we  
19:31:20 22 call Phase 6, and we have specific removal actions  
19:31:24 23 to perform based on the sampling we performed in  
19:31:27 24 this area.

19:31:28 25 Based on our current schedule, we

19:31:30 1 completed all the restoration activities in all  
19:31:30 2 these areas shown in red. I think there's a total  
19:31:36 3 of six individual excavation zones. We completed  
19:31:38 4 all that last week on the 18th of July, and if we  
19:31:43 5 stay on our current schedule, we'll have the site  
19:31:45 6 fully restored by the end of August.

19:31:48 7                   From the beginning of the project, we  
19:31:52 8 established a down-wind air monitoring station to  
19:31:57 9 make sure that any contaminants we were removing  
19:31:58 10 from the site were not released into the air and  
19:32:02 11 cause a hazard. The air monitoring program was  
19:32:05 12 based on the American Conference of Government  
19:32:08 13 Industrial Hygienist in what they call the Threshold  
19:32:09 14 Limit Values which are basically occupational  
19:32:09 15 standards for exposure to contaminants, and to date  
19:32:15 16 there have been no exceedances observed in the  
19:32:17 17 down-wind air monitoring station at any of the  
19:32:19 18 contaminants of concern.

19:32:21 19                   To give a recap of the amount of work  
19:32:25 20 we did out there, we removed a total of 75,700 and  
19:32:29 21 change cubic yards of contaminated soil from Phases  
19:32:33 22 1 through 5. And to give a breakdown if we  
19:32:36 23 classified this waste for off-site disposal, about a  
19:32:39 24 thousand cubic yards was classified as RCRA  
19:32:40 25 hazardous, another 63,700 cubic yards was classified

19:32:44 1 as what they call California hazardous, a lower  
19:32:44 2 classification or hazard classification than RCRA.  
19:32:48 3 Of that another 10,000 was non-hazardous in nature.  
19:32:56 4 And then we had about 900 cubic yards that was  
19:32:59 5 shipped off to a certified landfill in Texas that  
19:33:03 6 was suspect low-level radioactive soils.

19:33:07 7 In Phase 6 we're planning on a  
19:33:08 8 removal action of about another 3,800 cubic yards.

19:33:13 9 Here's an aerial photo. I believe  
19:33:16 10 when Darren Belton gave his presentation in January,  
19:33:19 11 this showed basically our excavation boundary. You  
19:33:23 12 can see our soil stockpiles here. This is where  
19:33:27 13 they're actually doing backfill and site restoration  
19:33:30 14 work. Over here in this green area is where they're  
19:33:35 15 actually doing an active removal action. We're  
19:33:35 16 excavating some of the soils, and this is some of  
19:33:35 17 the rock backfill. So it's a site where we're  
19:33:46 18 restoring soil. The site is being restored and  
19:33:46 19 excavated all at the same time in parallel.

19:33:49 20 MR. BELTON: Glenn, where's the hazardous waste  
19:33:49 21 area on that photo?

19:33:53 22 MR. STARR: The haz waste area is this area  
19:33:53 23 right here called the Thorasea Key facility. It's  
19:33:55 24 right here in this boundary.

19:34:02 25 MS. MORLEY: And the green is water.

08:11:12 1 MR. STARR: And the black is not bad stuff.  
19:34:05 2 The black is just plastic covering the stockpiles.  
19:34:13 3 The first time I showed that photo, everyone goes  
19:34:13 4 "Oh, you've got oil on the site." Okay?  
19:34:16 5 And this photo was taken in June, and this  
19:34:20 6 is the same area. Again, here is the hazardous  
19:34:22 7 waste or CST facility. The site has been fully  
19:34:24 8 restored. There's now a parking lot there. This  
19:34:28 9 area shown in brown will eventually be nice green  
19:34:31 10 grass. They've been hydro-seeded. It still needs a  
19:34:32 11 little more work to get it growing.  
19:34:37 12 CAPT. HERING: If we can ever get it to grow.  
08:11:12 13 MR. STARR: But basically you don't know --  
19:34:42 14 when you look at it -- and one of the pains of doing  
19:34:44 15 an environmental project, when you're all done, all  
19:34:44 16 you've got left is a parking lot. No one ever sees  
19:34:48 17 everything you went through to get all that stuff  
19:34:49 18 out of there in the first place.  
19:34:52 19 MS. MORLEY: And, Glenn, if I can interrupt you  
19:34:52 20 just for a second, one of the reasons that we're  
19:34:56 21 putting the grass around that site is what's called  
19:34:59 22 a vegetative swale, and Captain Hering has decreed  
19:35:01 23 that any new construction, any parking lot on Naval  
19:35:01 24 Station will have a vegetative swale to capture  
19:35:03 25 storm water runoff. We want to limit the amount

19:35:07 1 that does get off the base, so that's something that  
19:35:13 2 he's instituted since this time.

08:11:12 3 MR. STARR: Okay. There's some other photos  
19:35:19 4 here.

19:35:21 5 We have some detail photos showing our  
19:35:23 6 soil backfill, and this is probably Phase 1A. What  
19:35:27 7 you see down here is what we call the crush rock  
19:35:29 8 ballast. It's about three- to four-inch rock minus,  
19:35:32 9 which uses four inches a size or smaller. The  
19:35:35 10 bottom three feet of our backfill was the ballast  
19:35:38 11 rock because we were digging ten feet below ground  
19:35:39 12 surface or groundwater, whichever was greater, and  
19:35:42 13 we did not want the clean fill coming in contact  
19:35:45 14 with the groundwater, so we did this three-foot  
19:35:47 15 ballast backfill, and then what we call FS-15 or  
19:35:49 16 basically a sand engineered backfill on top.

19:35:54 17 This shows the excavation around the  
19:36:00 18 underground utility line. It's kind of hard to see,  
19:36:01 19 but this is basically a concrete encased electrical  
19:36:04 20 ductbank, so there's high voltage electrical cables  
19:36:06 21 running through here. And in order to get the  
19:36:07 22 contaminated soils out from underneath this  
19:36:10 23 ductbank, we devised a plan where we would take it  
19:36:12 24 out in sections, the soils supporting that ductbank,  
19:36:15 25 and then we would backfill what I call control

19:36:19 1 density fill, which is essentially light-weight  
19:36:19 2 concrete. So to allow this structure to be  
19:36:23 3 supported so they could take all the contaminated  
19:36:24 4 soil out from underneath the ductbanks and  
19:36:27 5 utilities.

19:36:31 6                   This is another photo. You can see  
19:36:33 7 the ballast rock being stockpiled on the site for  
19:36:38 8 the backfill. We are taking out some DPH or diesel  
19:36:41 9 impacted soils we found below groundwater in this  
19:36:42 10 location, and there's some excavation going on  
19:36:42 11 behind that.

19:36:48 12                   Again, we're just doing some backfill  
19:36:53 13 work. You can see some more of the utility lines  
19:36:58 14 that had to be dealt with. The yellow line is an  
19:36:58 15 air line, and the line next to it is a high pressure  
19:37:00 16 steam line, and the white you see on there -- the  
19:37:04 17 steam lines were encased in a steel jacket with  
19:37:05 18 asbestos installation. When we'd uncover this,  
19:37:05 19 basically the metal would fall off, and so we would  
19:37:08 20 have to re-encapsulate all the asbestos before we  
19:37:14 21 could do the excavation and then the backfill.

19:37:18 22                   Here's a nice photo. We do have  
19:37:22 23 grass in this location, so it's a little bit later  
19:37:23 24 than the last one. This was taken on the 4th of  
19:37:23 25 July. And we have the three flag poles that were

19:37:29 1 placed on the site, and you can see the parking lot  
19:37:30 2 in the background.

19:37:33 3 I have to apologize for the next set  
19:37:33 4 of photos because my photographer was technically  
19:37:36 5 challenged. What we're trying to show is the  
19:37:41 6 excavation we're professionally doing in Area 6.  
19:37:44 7 Right now we're showing a photo in the excavation  
19:37:46 8 we're doing in Excavation Area 4 which is part of  
19:37:50 9 Phase 6.

19:37:52 10 This is another really fine picture  
19:37:55 11 of a hole in the ground.

19:38:02 12 And this is to show -- some of these  
19:38:03 13 areas are very small. They're only about 10 feet  
19:38:03 14 wide, 15 feet long, and 10 feet deep. This is a  
19:38:10 15 very small area, and we have to dig vertically down  
19:38:11 16 in order to take out the hot spots of contamination.

19:38:16 17 And actually what's interesting --  
19:38:16 18 and I didn't have a picture of it -- in order for us  
19:38:19 19 to do our confirmation samples on the sidewalls and  
19:38:21 20 the floor of the excavation, we actually had to  
19:38:22 21 place a trench box inside of that excavation area so  
19:38:27 22 we could get a technician down into the hole to take  
19:38:30 23 his samples. That's a Health and Safety requirement  
19:38:32 24 because this is a vertical sidewall and so it could  
19:38:33 25 potentially collapse.

19:38:36 1 And this is another more shallow  
19:38:40 2 area. We had to dig to five feet, and right here is  
19:38:42 3 another one of these steam lines. Fortunately, this  
19:38:42 4 one was in actually pretty good shape. We didn't  
19:38:43 5 have to do anything with it.

19:38:48 6 Any questions?

19:38:54 7 MR. BELTON: One clarification on the removal  
19:38:54 8 action. The area and the CST area were not touching  
19:38:57 9 at this time. So when you go in and finish up with  
19:38:59 10 the removal action, we'll be done with the area.

19:39:04 11 Show the areas that you're digging right  
19:39:04 12 now.

08:11:12 13 MR. STARR: The areas that we're digging right  
19:39:09 14 now is right here, right here, here, here, and  
19:39:12 15 there's two small ones down here. The one that  
19:39:14 16 Darren's referring to is not part of our scope right  
19:39:16 17 now at this time.

19:39:18 18 MR. BELTON: That's correct. That's the CST  
19:39:18 19 area. We're waiting for funding in October before  
19:39:22 20 we proceed to that area.

08:11:12 21 MR. STARR: Okay. Any questions? Thank you.

19:39:31 22 MS. MORLEY: The status update on the Solid  
19:39:36 23 Waste Management Units, we're not really going to be  
19:39:37 24 going through that presentation because we were a  
19:39:41 25 little bit further behind than we had anticipated.

19:39:45 1 I don't know if you guys remember, but the  
19:39:46 2 Solid Waste Management Units are under hazardous  
19:39:49 3 waste laws RCRA as opposed to CERCLA, which governs  
19:39:52 4 IR, but we still work with the Department of Toxic  
19:39:56 5 Substances on those sites.

19:39:59 6 And basically I think you remember before  
19:40:05 7 when we had done a RCRA facility investigation, and  
19:40:05 8 there were seven SWMUs that went from Phase 1 to  
19:40:14 9 Phase 2. Now, the ones that -- there were three  
19:40:17 10 that were identified that needed to go to Phase 3  
19:40:20 11 for further action, as well as other SWMUs that were  
19:40:25 12 in our Part B permit which is what allows Naval  
19:40:27 13 Station to store hazardous waste on base for longer  
19:40:31 14 than 90 days. Otherwise, under the RCRA laws, you  
19:40:35 15 can only store it there for 90 days before you have  
19:40:37 16 to transport it to an appropriate facility.

19:40:40 17 So under that Part B permit there were  
19:40:41 18 other SWMUs that the Department of Toxic Substances  
19:40:45 19 wanted us to look at. So they will be sending us a  
19:40:48 20 letter. When we get that letter, we will either --  
19:40:52 21 if we have information where we can work with them  
19:40:54 22 to say, "No, these don't need to go into Phase 3,"  
19:40:57 23 or not, they will make that decision. And then  
19:40:57 24 finally, once we have the SWMUs that are identified  
19:40:58 25 to go to Phase 3 and we get funding, then we'll move

19:41:04 1 forward on investigating that last group before we  
19:41:08 2 can go to corrective action. So that's the update  
19:41:11 3 on that.

19:41:11 4           And then groundwater, we're not going to  
19:41:13 5 do that presentation either. Basically we're  
19:41:16 6 looking at groundwater on a site-by-site basis and  
19:41:21 7 looking for data gaps. For example, are there --  
19:41:24 8 did we look at all the constituents for groundwater  
19:41:27 9 at this site or have we sampled across the user site  
19:41:30 10 or are there groundwater samplings done during the  
19:41:33 11 dry season and the rainy season because things can  
19:41:36 12 change there -- and looking for those gaps to try to  
19:41:39 13 make sure that -- on an IR program there's a hole  
19:41:42 14 that we have enough information to be making  
19:41:45 15 decisions on a site-by-site basis, but we're not  
19:41:46 16 quite at that place yet where we have that  
19:41:49 17 information, so that will be coming later.

19:41:53 18           And that's it. So are there any general  
19:41:57 19 questions?

19:42:01 20           The next RAB will be the end of October,  
19:42:04 21 the last Wednesday in October, and I don't know what  
19:42:07 22 date that is. I think we're going to be in this  
19:42:12 23 hotel now.

19:42:13 24           MR. DIAZ: The 31st.

19:42:15 25           MS. MORLEY: The 31st? That's Halloween, so

19:42:15 1 everyone has to come in costume or you won't be  
19:42:21 2 allowed in. We can't do that? Come in costume or  
19:42:29 3 come to the RAB?

19:42:29 4 CAPT. HERING: You have to come in costume  
19:42:29 5 because that's where everybody will be.

19:42:36 6 MS. MORLEY: And Bechtel's volunteered to make  
19:42:29 7 cupcakes and stuff like that for everybody out of  
19:42:29 8 the goodness of their hearts. Just kidding.

19:42:41 9 And thank you, Bill, for coming, and thank  
19:42:45 10 you EHC. I hope that you guys continue to come. We  
19:42:46 11 miss not having your input, and thank you everybody  
19:42:51 12 else.

19:42:54 13 This meeting is now adjourned.

19:42:59 14

19:42:59 15 (Whereupon, at 7:45 p.m. the RAB meeting  
22:39:25 16 was adjourned.)

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22:39:25 1 STATE OF CALIFORNIA )

22:39:25 2 : SS

22:39:25 3 COUNTY OF SAN DIEGO )

22:39:25 4

22:39:25 5 I, Nancy A. Lee, CSR No. 3870, do hereby

22:39:25 6 certify that I reported in shorthand the above

22:39:25 7 proceedings on Wednesday, July 25, 2001, at the Red

22:39:25 8 Lion Inn in the USS Jason Room, in the City of

22:39:25 9 National City, County of San Diego, State of

22:39:25 10 California; and I do further certify that the above

22:39:25 11 and foregoing pages numbered 1 to 51, inclusive,

22:39:25 12 contain a true and correct transcript of all of said

22:39:25 13 proceedings.

22:39:25 14 Dated: \_\_\_\_\_, 2001.

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NANCY A. LEE

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