



**DEPARTMENT OF THE NAVY**

NAVAL SUBMARINE BASE NEW LONDON  
GROTON, CONNECTICUT 06349-5000

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From: Commanding Officer, Naval Submarine Base New London  
To: Distribution

Subj: RESTORATION ADVISORY BOARD (RAB)

Encl: (1) Minutes of Restoration Advisory Board (RAB) meeting of  
15 May 1996

1. Enclosure (1) is forwarded for your information.
2. If you have any questions please contact Mr. Andrew Stackpole at (860) 449-5191.

  
SUZANNE BERKMAN  
By direction

Distribution:  
RAB Members

MINUTES OF RESTORATION ADVISORY BOARD (RAB)  
MEETING  
MAY 15, 1996

Attendees of the meeting

Andrew Stackpole	NSB-NLON
Mark Evans	Navy
Jeff Dale	Navy
Kymerlee Keckler	USEPA Boston
Dick Conant	NSB-NLON
Robert Jones	COMSUBGRU1WO
Mark Lewis	CTDEP
Susan Orrill	RAB Co-Chair Member
Norman Richards	RAB Member
Harry Watson	RAB Member
Deborah Downie	RAB Member
S. H. Huang	

Agenda

The agenda for the meeting was as follows:

1. Welcome and Introduction
2. Review of Minutes from Last Meeting
3. Program Update
4. Groundwater Classification Discussion
5. Community Participation
6. Future Meeting Date/Time

Welcome and Introduction

Andy Stackpole opened the meeting at 7:08 p.m. and welcomed all attendees.

Review of January 21, 1995, Meeting Minutes

The January meeting minutes were reviewed and accepted. Next meeting minutes will be distributed by the middle of June.

Program Update

Andy Stackpole indicated that Brown and Root would be visiting SUBASE on 16-17 May regarding the Lower Base RI.

The ground water flow determination was revisited to ensure

everyone understood the concepts. There were no comments.

### Budget Update

Mark Evans provided an overview of the FY96-FY98 DERA Budget. Sites that have been budgeted for are high priority sites. Northern Division is given dollar control amounts and told how much funding NSB-NLON will receive. Individual costs for each site and phase have to use cost-to-complete estimates.

The budget has not been finalized yet. The plan for FY96 is the following:

Site 6, DRMO - The monitoring plan is awarded. A draft work plan is due at the end of this summer. This is required as part of the removal action that was completed. The Navy plans on conducting the groundwater monitoring either quarterly or three times a year. The monitoring plan will be out at the end of the summer.

Site 8, GOSS COVE Landfill - Waiting on funding. Feasibility study is currently within the budget. This is based on the recommendations in Phase II RI.

Site 3, Area A Downstream/OBDA - Waiting on funding for Feasibility Study. A removal action for this site is planned. The Navy has budgeted funding to prepare a decision document and the construction will start FY97.

Lower Base RI - Draft work plan complete by mid to late September.

Site 2, Area "A" Landfill - Construction of the cap is ready to start when funding becomes available in October. The Feasibility Study for Site 3 should be ready to move on to a Proposed Plan and Record of Decision in FY97. The Navy plans on starting the remedial design for the Area "A" downstream. We have a feasibility study that was done earlier. It's been put on hold until we have completed the ecological study in the Phase II RI.

Mark Evans indicated that the debris removal at the OBDA is planned for FY97.

Site 8, GOSS COVE Landfill - Proposed Plan and Record of Decision are budgeted for FY97.

Budgeting for FY98 is premature at this time and is as follows:

Site 3, Sediment contamination - Record of Decision should be signed and remedial action will begin.

A feasibility study for the Site 7 - Torpedo Shops is planned. Phase II RI recommended that this site proceed to a FS.

Site 8, GOSS COVE - Should be ready to award remedial action.

Norman Richards stated that an ecological risk assessment

framework revision has been in draft form going around EPA and other places for comment. It has not been released. He stated that it would be very important for these long term study contractors to review this document to see the changes and recommendations there are, and the new wave of ecological risk assessments.

Kymerlee Keckler stated that EPA does not release documents that are in the development stages because they have to go through public comment. As soon as they are accepted by EPA, EPA will provide them.

Norman Richards indicated that the management side and the consensual approach is different then the contractor's. Contractors should be aware, when the time comes, that these documents may be emerging. EPA had a briefing a short while ago on volatile substances and sediment underlining quality criteria. The key point of that briefing is regarding the divalent metals. It appears that there could be significant differences depending on the Eh's. As we have discussed earlier, the sulfides form insoluble metal sulfides which simply are not available.

Mark Evans stated that EPA Region I does a good job keeping the Navy up-to-date. EPA is conducting a workshop at the end of June, and they've invited the Navy to attend. They've invited all the RPMs from the Army, Air Force, and other DOD activities.

Norman Richards indicated that these new documents will be coming out very soon, and it is critical that taxpayer's money does not go towards analysis of particular chemicals that, in fact, may be little risk because of the particular environmental setting they're in. Norman Richards also indicated in reviewing the new volumes that are out, the logic was much cleaner then decades ago. The procedures and analytical methodology make it much easier to take a quick look at some of these results and not have to worry so much about subjective judgments that have been made.

#### Current Remediation Projects

Andy Stackpole stated that there are separate off-base and on-base ground water remediation systems scheduled for start-up next week. There is a gas station on base that was found to have a gasoline plume working to the southwest of the station into the ball field. Extraction wells have been installed and the Navy contractor has started the system and is in the process of getting it adjusted. Air and water discharge permits are in place. The site off-base is the Dolphin Mart. Start-up of these systems should occur in two weeks. Basically the system injects air into the soil and volatilizes the contamination which is removed with a vacuum system.

Andy Stackpole asked if anyone has any questions regarding the Phase II RI.

Norman Richards stated he was wondering about the assumptions that were used regarding the Cormorant and Herring Gull regarding their food web.

Kymerlee Keckler stated that combinations of literature values

which evaluated habitat and types of prey species for Cormorants and Herring Gulls were used.

Norm Richards stated that when using EPA's database, when you combine the exposure, it is possible that the contaminants of concern could be different among different birds.

Norman Richards indicated that based on the concentration in the food web in this area, it was really very surprising how there was essentially zeros all the way through the table on page 01 of the Herring Gull section. It seems strange that those numbers should come out so low. What endpoint was measured in these birds. Based on our knowledge of the toxicology of the particular compounds that we know they should of had some exposure.

Andy Stackpole asked Mr. Richards to write down the questions, and they will be answered as soon as possible.

Andy Stackpole also indicated that the information is in the information repository in the libraries.

#### Groundwater Classification Discussion

Mark Lewis, CT DEP, presented a briefing on the new ground water reclassification regulations that State of CT has recently published.

Some of the SUBASE is GB/GA Where it is classified as GB/GA CTDEP intends to restore it to GA. Reclassification of the groundwater is determined if it is technically infeasible to restore groundwater for one reason or another. A classic example would be chlorinated substances which would be impossible to clean-up using current technology. The contact at DEP for water quality issues is Randy May and his phone number is on the attachment.

Kymerlee Keckler asked if the Navy has submitted an application.

Jeff Dale stated that he had been speaking with Randy May. There currently is no specific application to be used. He stated he has guidance documents on how to prepare an application. He stated that the State of Connecticut is trying to straighten out some of the misclassifications from the early '80s.

Norman Richards asked for a brief summary of the risk assessment approach to groundwater that Connecticut has taken.

Mark Lewis stated they now have new remediation standards. The regulations took affect in January of this year. They apply first to soil and then to groundwater. The soil criteria are divided among direct exposure criteria, and they are aimed at protecting people and protecting environment for the risk from dermal contact. The second is the pollutant mobility criteria. CTDEP has provided a way for people to calculate exotic chemicals. Individuals can plug into the same risk assessment code to come up with their own numbers. If they think the

current numbers are not appropriate, they can use dilution factors. If they think the dilution factor was too conservative, they can make their case. If CTDEP approves it, we will allow a party to use the number that they came up with.

There is a difference between soil that is right at the surface of the ground and soil that is fifteen feet deep. It is unlikely that people would come in contact with this soil. CTDEP has some requirements for reporting where contamination is and recording on the land records for the property, which is called an environmental land record. Initial control would be to prohibit digging in the soil for example. In the case of groundwater, if a site is going to be closed and is not meeting all of the groundwater criteria for some reason, a land use restriction would prohibit the use of the groundwater.

Mark Lewis indicated another criteria which is used is when groundwater discharges to a surface water body. If the surface water had coliform bacteria it would not be assigned an "A" classification.

Jeff Dale indicated that he is meeting with the State of Connecticut to discuss exactly what we need to submit for a complete application.

Andy Stackpole indicated that there are residences who have salt water intrusion into their wells near the SUBASE. He asked if the State will take some of that data into account when they consider the application.

Mark Lewis stated that a case like that would be looked at.

#### Community Participation/RAB Selection

There was a motion to keep the meeting setting the same for next meeting. Also, it was requested to hold the meeting in one of the local libraries. Andy Stackpole will look into this.

Norman Richards commented that he was very pleased with the materials, and the herculean effort that had gone into the preparation of documentation.

#### Future Meeting Date/Time

The date for the next RAB meeting was schedule for August 7, 1996 at 7:00 PM at the Groton Public Library, RT 117, Groton CT.

The meeting was adjourned at 8:04 p.m.

**WATER QUALITY CLASSIFICATIONS**  
**PRESENTATION FOR NAVAL SUBMARINE BASE NEW LONDON**  
**RESTORATION ADVISORY BOARD**

**May 15, 1996**

Water quality classifications are the frame work for our system for managing water quality.

It is an effort to divide up the waters of the State to manage sometimes conflicting land uses. so that waters used at one extreme for drinking water supplies are not also used at the other extreme to receive waste water discharges.

We adopted them as required by the Federal Clean Water Act, Section 303.

We have had surface water classifications since 1970, and Ground Water Classifications since 1980.

Standards listed in our Water Quality Standards, which were adopted pursuant to CGS 22a-426

We revise the standards every 3 years. The most recent revision to standards just became effective April 12. Also periodically reevaluate classifications basin by basin, in addition to accepting reclassifications on site by site basis.

**Ground Water Quality Classifications (GA, GB, GC)**

Based on a number of factors:

- Historical land use urban/industrial vs. rural
- Hydrogeology- suitability for particular uses
- Social/ economic factors

GA= default classification -about 70%- 80% of state

Designated for use as private water supply, therefore assumed suitable for human consumption w/o treatment.

Discharges limited to wastes of human or animal origin such as septic systems, agriculture. minor cooling, and materials of natural origin or that easily biodegrade.

Goal to maintain high quality & restore waters not currently meeting criteria.

GB= Assumed to be contaminated, and unsuitable for human consumption.

# Naval Submarine Base New London

## Restoration Advisory Board

### Sign-In Sheet

Name	Organization	Phone
Harry Watson	Groton Town Council	
Deborah Downie	Community Member	
JEFF DALE	NAVY-NORTH DIV	
Mark Evans	NAVY-NORTH DIV	
Norman Richards	Mohegan Tribe	
Sue Orrill	Community Member	
Mark Lewis	Conn DEP	
ANDREW STACEY	SUBASE	
Kumbarlee Keckler	USEPA - Boston	
ROBERT JONES	CONSUBBAN TWO / Groton Resident	
S. H. Huang		
Dick Conant	Subbase Environ. Dept	

\* Please check address - see back of page

Attachment (1)