

To: Meeting Attendees

From: Matt Bartman and Corey Rich
TtNUS, Incorporated

Date: February 9, 1999

Subject: Feasibility Study (FS) for Goss Cove
Naval Submarine Base – New London
Groton, Connecticut

Meeting Date: January 19, 1999

Meeting Location: U.S. EPA Region I Offices
1 Congress Street Suite 1100

Meeting Objective: To discuss the findings of the Evaluation of Chemical and Toxicological Data for Goss Cove Report prepared by Science Applications Internal Corporation (SAIC) and the progression of the FS.

Meeting Attendees:

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|-------------------|----------------|---------------|--|
| Mark Evans | NORTHDIV | 610-595- 0567 | mdevans@efdnorth.navfac.navy.mil |
| Dave Barclift | NORTHDIV | 610-595-0567 | djbarclift@efdnorth.navfac.navy.mil |
| Jeff Sullivan | New London | 860-694-5176 | sullivanj@subasenlon.navy.mil |
| Kymberlee Keckler | U.S. EPA | 617-918-1385 | keckler.kymberlee@epa.gov |
| Patti Lynne Tyler | U.S. EPA | 781-860-4342 | tyler.patti@cpamail.epa.gov |
| Ken Finkelstein | NOAA | 617-639-1783 | ken.finklestein@noaa.gov |
| Mark Lewis | CTDEP | 860-424-3768 | mark.lewis@po.state.ct.us |
| Jennifer Stump | Gannet Fleming | 717-763-7212 | jstump@gfnet.com |
| Corey Rich | TtNUS | 412-921-8244 | richc@ttnus.com |
| Matt Bartman | TtNUS | 412-921-8984 | bartmanm@ttnus.com |
| Greg Tracey | SAIC | 401-847-4210 | gtracey@mtg.saic.com |

Meeting Highlights:

- Mark Evans stated the purpose for the meeting and presented the agenda that included the items for the meeting discussion. One of the agenda items Mark addressed was the addition to the Nautilus Museum. Mark indicated that the construction is planned and scheduled to begin soon. This addition and how it impacts the remedial alternatives will need to be addressed in the feasibility study.
- Although all attendees indicated that they had the opportunity to review the document prepared by SAIC Greg Tracey was asked to provide a summary of how the study was conducted and the findings.

- Greg Tracey explained that the sampling was conducted in August 1998. The bulk sediment testing indicated that the sediment was nontoxic. The pore water tests indicated possible toxicity to fish. TIE testing was completed on the pore water to determine if the toxicity was due to the presence of organics, pesticides, metals, or ammonia.
- Kimberlee Keckler asked Greg Tracey if when the organics were removed was the food supply also removed. Mr. Tracey indicated that there was no correlation between the two.
- Ken Finklestein posed the question as to whether there was a test that would show if metals are toxic. Could the ULVA be removing metals before the EDTA is used?
- Greg Tracey indicated that the metals are chelated by EDTA and not removed. If EDTA resulted in a precipitate it could be tested for metals.
- Patti Tyler asked about the hydrogen sulfide component.
- Greg Tracey indicated that during the sampling direct measurements were made for sulfide and found to be low; consequently, hydrogen sulfide was removed as a cause of toxicity without testing.
- Ken Finklestein asked what would be some possible sources of sulfide. It was indicated that the treatment facility, an up gradient source, and exchange with the Thames River could be possible sources.
- Greg Tracey discussed Figure 3.1.3 in the report. This figure indicated the Simultaneously Extracted Metals (SEM). He indicated that each of the metals on this figure bind 1:1 with sulfur. Mercury was initially included as a SEM but was dropped because it did not react classically as the other metals.
- Patti Tyler indicated that if the Cove were to be opened to the Thames River that the sulfur concentrations would potentially decrease and there would be an increase on oxygen levels therefore making the SEMs more available.
- Kimberlee Keckler asked if there was agreement that the toxicity in the Cove was caused by the levels of ammonia. Ken Finkelstein indicated that he had a 10 percent uncertainty with this conclusion. Ken Finkelstein indicated that additional testing for availability and toxicity of metals would provide support for his conclusion. Kimberlee Keckler concluded from the discussion, which for the purpose of the feasibility study that the sediments should not be considered toxic and that the opening of the Cove is not an issue to be dealt with in the feasibility study. Kimberlee indicated that based on the available information that the no further action is warranted for the sediments in the FS.

- Mark Lewis indicated that if mercury and silver were determined to be available and a possible concern that the State of Connecticut does not have applicable criteria to evaluate the available levels against.
- Kymberlee Keckler indicated that the U.S. EPA has not discussed health-based PRGs for metals because there are no existing risks to the sediment.
- Greg Tracey indicated that the data is available to estimate what will happen to SEM with the reduction in sulfide. Copper and cadmium will become available quickly in the absence of sulfur and lead and zinc will be slower in availability.
- A discussion was undertaken regarding the plans for the new storm sewer system. It was requested of Jeff Sullivan to find out what the plans are for the new system, where it will be installed, and if an initial Environmental Assessment was conducted. The state, U.S. EPA, and NOAA indicated that they favor rerouting the storm sewer system from its current routing through the landfill.
- It was decided among the attendees that a meeting should be held to discuss the plans for the storm sewer and the estimation of SEM availability prepared by SAIC. A RAB meeting is planned for February 3, 1999 and it was decided that the other topics could be discussed at a meeting on February 4, 1999. This meeting is to be conducted at NSB-New London. Prior to the February 3, 1999 RAB meeting a meeting is scheduled to discuss the RCRA issue and how this will impact the status of the landfill and the proposed alternatives.
- Matt Bartman raised the issue of the comments received from U. S. EPA on the draft Wetlands Functions and Values Assessment Report. Matt Bartman indicated that only the comment No. 1 was significant and asked for clarification of the comment and how this comment would impact the completion of this submittal and impact the completion of the feasibility study. Jennifer Stump indicated that she generated that the comments on this document. It was agreed that no additional investigation work was warranted for this report; however, work sheets that are provided in the Army Corps "New England" method will need to be completed and provided along with the next version of the report. Mark Lewis indicated that the CTDEP would not be commenting on this submittal. It was agreed that the Final Wetland Functions and Values Assessment Report should be provided as an appendix to the next version of the feasibility study.
- Kymberlee Keckler indicated she is projecting an aggressive schedule in order to have a signed Record of Decision in fiscal year 1999. Kymberlee indicated that she is looking at a revised feasibility study and Proposed Plan in early April and the final Record of Decision at the end of August. Kymberlee stated that it is assumed that a 30-day comment period will be provided by U.S. EPA in order to meet the schedule.
- Jennifer Stump brought up issues from past meetings that need to be addressed in the next version of the feasibility study. One issue is related to the vertical containment

evaluation, which was discussed at the January 30, 1998 meeting, and the other is the need to address the total excavation option. This option needs to be addressed and screened out. Kymberlee Keckler indicated that if the total excavation option is screened out early there strong evidence must be provided or the option must be carried through the feasibility study.

Action Items:

- Greg Tracey will prepare estimates of metals availability in the absence of sulfide. This information will be discussed at the meeting scheduled for February 4, 1999 at NSB-New London.
- Jeff Sullivan will research the existing Engineering Analysis that was prepared for the storm water system. This information will be provided to Mark Evans and discussed at the February 4, 1999 meeting.
- Greg Tracey will prepare a final report which is to be included as an appendix in the draft final feasibility study.
- Matt Bartman will contact Dr. Nearing and obtain the necessary forms in the to be included in the Wetlands Function Values Assessment Report to comply with the Army Corp New England method.
- TtNUS will review meeting minutes from previous meetings and comments on the draft feasibility study to ensure that all concerns are addressed in the draft final feasibility study.
- Mark Lewis will provide the U.S. EPA and the Navy with the findings from CTDEP's investigation being conducted for the offsite source of perchlorethene contamination.