

RESTORATION ADVISORY BOARD MEETING
NAS BRUNSWICK, MAINE

January 14, 1998

ATTENDEES:

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE/FAX</u>
Jim Caruthers	NASB	
Emil Klawitter	Northern Division	
Jeff Dale	Northern Division	
Bob Lim	USEPA	
Mike Barry	USEPA	
Claudia Sait	MEDEP	
Richard Heath	MEDEP	
Carolyn Lepage	BACSE Consultant	
Tom Fusco	BACSE	
Peter Nimmer	EA Engineering	
Chip McLeod	EA-Engineering	
Jeff Brandow	ABB-ES	
Claudia Dricot	ABB-ES	

MEETING DATE: January 14, 1998, 9:30 a.m.

MEETING LOCATION: NAS Brunswick

I. INTRODUCTION

The Restoration Advisory Board (RAB) meeting was opened by Emil Klawitter (NORTHDIV).

II. TENTATIVE SCHEDULE FOR 1998

Emil Klawitter reviewed the tentative schedule for calendar year 1998 (Attachment 1):

Site 2

The Navy is planning to complete a ROD for Site 2 during 1998, with a signing tentatively scheduled for May. Subsequent to the ROD, the Navy will be developing a work plan for actions described in the ROD. In addition, the Navy will finalize a long term monitoring plan for the site.

MEDEP noted that it may be difficult for the State to meet the schedule for reviewing documents. The State is hoping to hire a replacement for Richard Heath by March but in the interim, another geologist may be asked to help review documents.

Site 9

The Navy is tasking EA Engineering to write a Proposed Plan and ROD for Site 9. A final Proposed Plan is tentatively scheduled for July, followed by a public comment period and meeting. A ROD will be started in August to be signed by early 1999.

Eastern Plume

The geostatistical analysis will be finished in January and the Navy will propose revisions to the LTMP. A Technical Meeting is scheduled for March to discuss plans for the LTMP. The revisions to the LTMP may be able to be implemented by Monitoring Event 12.

Site 11

Additional sampling at Site 11 at the confining clay layer will be performed in March, weather permitting. The Navy would like the results prior to the Technical Meeting to be able to discuss possibly adding wells at Site 11, however, the analytical work will probably not be back from the lab yet. The raw data may be available for the meeting.

EW-2a

The Navy is in the process of negotiating the installation of the new extraction well near MW-311. The installation is schedule for March, weather permitting.

Additional Sites

Bob Lim (USEPA) asked about the status of Sites 7, 12, 15, and 16. Bob said that he, Fred Evans (NORTHDIV) and Nancy Beardsley (MEDEP) had been discussing outstanding issues at Site 7 such as groundwater flow and cadmium. Bob thought there had been agreement with the investigations' conclusions for No Action at Sites 12, 15 and 16 and that a consensus statement would be developed.

Jim Caruthers said that groundwater mapping was done as part of the old fuel farm remediation. As a result, there is more groundwater flow information available now. Jim noted that the groundwater flow changed when the old fuel farm was taken out of service. Emil Klawitter said he would provide a summary of where Site 7 stands for the next RAB meeting.

Emil Klawitter will add Sites 7, 12, 15 and 16 to the agenda for the next RAB meeting and to the revised schedule. Any changes or additions to the schedule will be sent out with the RAB minutes.

Bob Lim introduced Mike Barry (USEPA) who will be taking over for Bob as the EPA Remedial Project Manager for the NAS Brunswick site. Bob was previously the Army BRAC Coordinator for the Department of Defense at Fort Devens, MA.

III. SITES 4, 11, 13 AND THE EASTERN PLUME

A. Record of Decision

The Navy received comments on the Revised Draft Final ROD from USEPA, MEDEP, and Carolyn Lepage (BACSE). Emil Klawitter believes the issues have been resolved. He will be sending a letter to USEPA, MEDEP and Carolyn Lepage addressing the comments. Claudia Sait (MEDEP) said that once the letter is received, the State will concur and will not need to see another draft of the ROD.

It was decided that there would be only one ROD with original signatures and it would be kept by the Navy. USEPA and MEDEP said they did not want an original ink copy. NAS Brunswick's Commanding Officer will sign an unbound ROD. It then will be forwarded to USEPA for signature. MEDEP will fax a letter of concurrence to USEPA before USEPA signs the ROD. Once the ROD has been signed by both the Navy and USEPA, it will be issued to the RAB.

B. Extraction Well EW-2A

The installation of a new extraction well in the vicinity of MW-311 will take place in March. The Navy will inform the RAB as the time approaches so that members can observe the installation. Richard Heath (MEDEP) asked if there was any workplan associated with the installation. He recalled that previously there had been discussion about the screened interval of the well. Emil Klawitter said that the Navy would provide the RAB with additional details on the design of the extraction well. Richard Heath asked if the Navy had continued pumping MW-311. Peter Nimmer (EA) said that it had been terminated due to freezing conditions. The results had been showing slightly declining concentrations at MW-311.

C. Long Term Monitoring (Attachment 2)

1. Geostatistics

The 70% completed stage of the geostatistical analysis was presented at a technical meeting held on November 5, 1997, during which the approach, hypotheses, and preliminary assessment were discussed. The 100% assessment has now been completed and the Draft Geostatistical Assessment report will be issued in February. Richard Heath asked if there was much difference between the 70% assessment and the 100% assessment. Peter Nimmer said that there was one change; they had tried modeling the north and south lobes of the Eastern Plume separately and combined. They found that the combined model worked better. Everything else that was discussed at the technical meeting was carried out in completing the assessment.

2. Revision of LTMP

The revision of the Long Term Monitoring Program is in progress. Revisions will include monitoring locations, analytical methods, QA/QC, and sampling techniques. A list will be provided of the sampling points that will be included or discontinued and why. A separate LTMP will be issued for each site. There will be three documents: 1) Sites 1 and 3 and Eastern Plume, 2) Site 9, and 3) Building 95. Instead of issuing an entire LTMP for review, the Navy will be issuing a summary of the major changes to be reviewed by the RAB prior to making the changes to the big report. The Navy would like to review the changes during the technical meeting to be held in March.

Bob Lim noted that the MEDEP and USEPA comments on the annual reports should be incorporated into the new LTMPs. By March, USEPA will have submitted comments on the 1996 annual report. MEDEP noted that they will try to get help for Richard Heath for reviewing reports.

3. Event 10 Field Work

Event 10 field work was completed in November 1997.

At Sites 1 and 3, 15 out of 16 monitoring wells were sampled. MW-202B was dry. All surface water and sediment samples were collected. Two leachate sample stations were dry. The rest were collected as planned.

All Eastern Plume groundwater samples were collected.

All the extraction wells and treatment plant samples were collected.

At Site 9, 1 out of 3 surface water samples were collected. Two of the former sample points are flooded by the surface water impoundment pond.

There was no sampling at Building 95. It will be sampled during annual sampling scheduled for August 1998.

4. Sites 1 and 3 Landfill Water Levels

Water elevations in the landfill have continued to decrease except at MW-217A where levels have increased by two feet over a 2-month period. The increase is most likely a rebound due to turning off extraction wells EW-6 and EW-7. The Navy will continue to take monthly water elevations in the landfill and will see if the groundwater elevation at MW-217A stabilizes.

Landfill Influent

The landfill influent flow from EW-6 and EW-7 was terminated on November 19, 1997. The Navy is considering using the well assemblies in the new extraction well EW-2A.

Eastern Plume Influent

All the extraction wells are showing diminished capacity. The Navy is planning to remove pump assemblies one at a time to be cleaned and reinstalled.

Richard Heath asked about the status of the direct push sampling at Building 95. The RAB had identified a sampling location but the sampling was never completed. Emil Klawitter said he would add the sampling to the schedule as part of the Site 11 field work. Since the Navy is planning to use a Geoprobe at Site 11, it would make sense to combine the two events. A sample will be taken at a depth of 6 to 8 feet, just below the geotextile fabric that was placed at the bottom of the excavation. The sampling is being performed to resolve the discrepancy in DDT concentrations between a field sample and a laboratory sample taken at the time of the Building 95 excavation. Richard Heath asked about taking a water sample because there is no monitoring downgradient of the sample location. Jeff Brandow (ABB-ES) said that turbidity may be a concern if a water sample is taken from a micro-well or by direct push. He suggested taking both filtered and unfiltered samples. Carolyn Lepage reviewed her notes from the July 1997 RAB meeting during which the RAB talked about taking 3 direct push soil samples. Fred Evans had suggested additional sampling in response to MEDEP requesting the installation of an additional well. Richard Heath said he thought groundwater had been discussed to see the groundwater impact in the event the analysis was a real hit. Emil Klawitter said that perhaps the issue can be resolved more completely with a groundwater sample. Emil Klawitter agreed to compile the Navy's notes on the issue and fax them to the RAB before the next technical meeting.

5. Reduction of Paper in Reports

The Navy is proposing a change in the way reports are issued in order to reduce paper and limit the amount of space needed to house reports. The alternatives presented a combination of electronic and paper formats for text and data. (Attachment 3). The digital format would be in Adobe Acrobat on either 3.5 inch disks or CD ROM.

Peter Nimmer noted that Adobe format looks exactly like the printed page. The reader can zoom in and out and can print whatever number of pages he wants. EA has had good success with scanning Form 1's and photographs.

Richard Heath suggested providing everything on CD ROM. Claudia Sait said she would check to see what kind of CD ROM capability the State has.

Bob Lim said he would get back to USEPA lab personnel to see if the Form 1's are necessary. Currently, Form 1's are provided in the monitoring reports but not in RI reports. Emil Klawitter said the Navy will maintain at least 1 paper copy of the Form 1's.

Jim Caruthers noted that the Web-Page is in progress. There are no online dates yet, but once it is online, everything from that date forward will be included electronically. Eventually, he will be going back through the Administrative Record and adding it to the Web Page. He anticipates that 99% of the information will be in Adobe format.

Emil Klawitter said the Event 10 Monitoring Reports will be provided on paper and on disk as a trial version in February.

Emil Klawitter asked the RAB to think about whether their requirements would differ for draft versus final reports. For example, a paper copy may be necessary for only the final version of a report. Jim Caruthers added that requirements might change as people become more comfortable with the electronic versions.

Carolyn Lepage said that Susan Weddle may not need to receive a copy of reports but, because she represents the town of Brunswick, she will have to get an answer from the town. It was suggested that the Navy send a letter to the RAB members asking their preference and whether they still need to continue to receive reports. Claudia Dricot (ABB-ES) and Peter Nimmer will provide Emil Klawitter with report distribution lists.

D. Infiltration Study

Carolyn Lepage had asked the Navy if a cost analysis was done comparing discharge of treated groundwater to the sewer district versus infiltration back to the site. Emil Klawitter responded that another cost analysis had not yet been accomplished. EA will be doing an engineering analysis of the changes to the treatment plant that may be necessary to meet MEGs as a ceiling for infiltration. Sand filters may need to be converted to carbon, in which case the UV/oxidation system would be shut down. Modifications to the existing UV/oxidation system may also be possible. The Navy is hoping the costs to reconfigure the treatment plant will be lower than the \$250,000 yearly sewer bill. Once the engineering analysis is completed there will be enough information to develop costs.

IV. SITE 2 RECORD OF DECISION

The Draft ROD for Site 2 will be distributed to the RAB for review within the next few days.

V. SITES 1 AND 3 LANDFILL CAP INSPECTION

In March, the Navy will conduct a landfill cap inspection. The cap will be mowed and inspected, and minor repairs will be performed. The Navy already knows of some ruts but they are due to erosion, not settling. The RAB will be informed of the inspection ahead of time and it will be added to the schedule.

VI. OTHER ISSUES

1. Jim Caruthers is in the final stages of formalizing an agreement with the Geology Department at Bowdoin College to use the NAS Brunswick sites for field exercises for their geology and hydrogeology classes. The classes will perform well monitoring and slug tests on wells in uncontaminated portions of the Base that are not currently being used for monitoring.

2. Bob Lim asked about the recalibration of the numerical model and its value with respect to long term containment and clean up of the Eastern Plume. ABB-ES has submitted a report to the Navy which concluded that the model in general still reflects an adequate level of accuracy as a design tool but would need some additional recalibration to be used for other purposes.
3. Jeff Brandow asked for some input on locations for the additional sampling at Site 11 to verify that there are no more source areas. Richard Heath said the 3 additional geoprobe locations should correspond to locations that had detections of chlorinated compounds after the soil removal. Jeff Brandow indicated that only one sampling location had detections of chlorinated compounds, and it was located beneath the former concrete fire training pad. After some discussion, it was agreed that the Navy would provide a brief work plan for review and agreement.

Richard Heath asked about the cone penetrometer work south of Site 11. The Navy is looking at it as a separate effort from the work at Site 11 and will be performing the work at the same time as the extraction well installation in order to reduce mobilization costs. In Fiscal Year 98, \$1.7 million is targeted for work to be accomplished at NAS Brunswick. Long term monitoring costs \$600K per year, and operation of the treatment plant with utilities and sewer discharge costs \$500K per year. Therefore, the Navy needs to spend the remaining available funds as efficiently as possible.

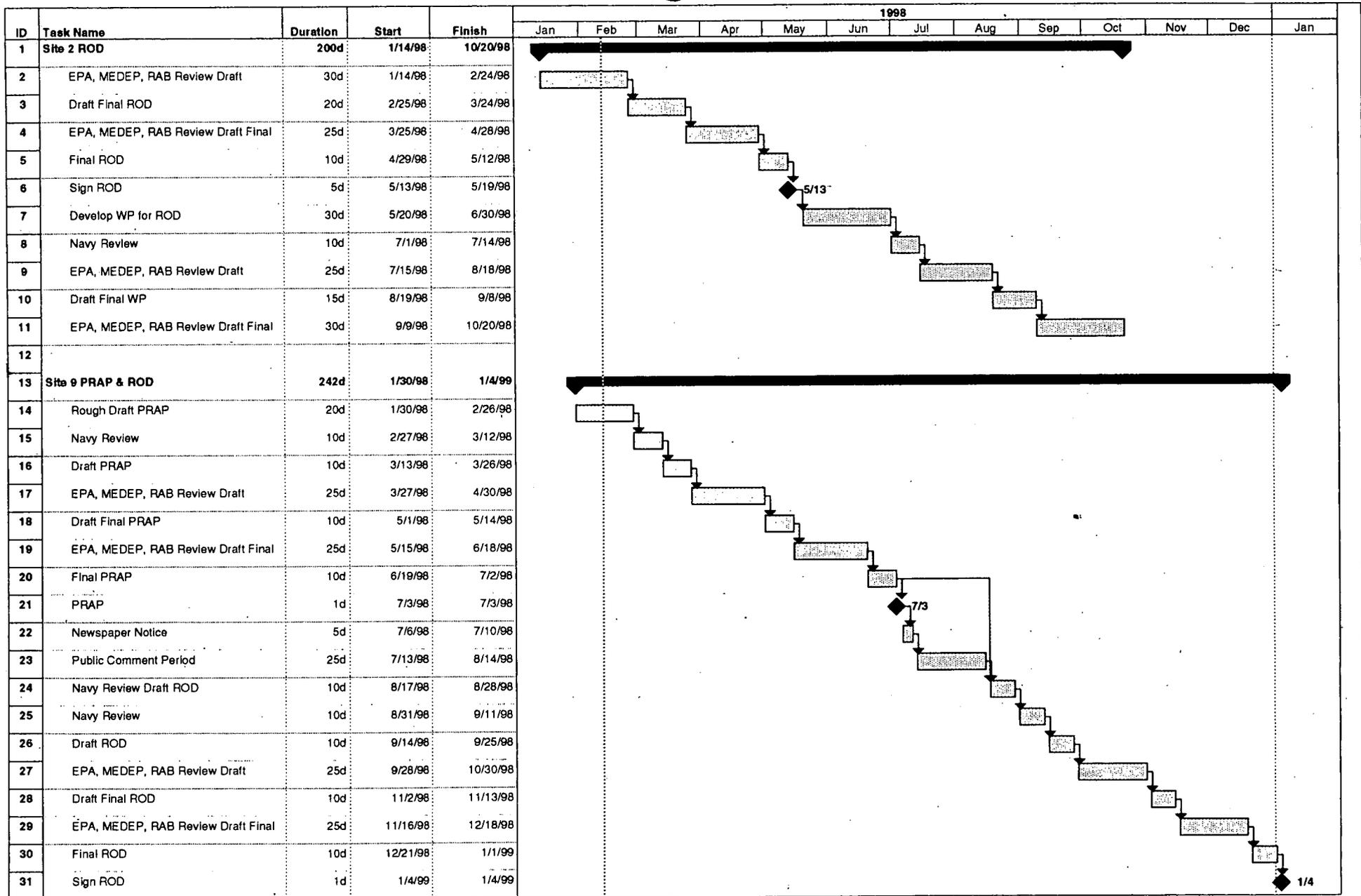
4. Tom Fusco (BACSE) is attending a Community RAB meeting in Arizona at the end of the month sponsored by the Department of Defense. RAB members from all 3 defense branches have been invited to participate. Tom is looking for some financial support to cover part of the trip (\$20 per day for living expenses). Bob Lim said he would check with the TAG grant coordinator to see if a community group can use the funds rather than a consultant. Tom hopes to give a presentation on how to develop RABs so that participants do not view one another adversarially.

VI. FUTURE TECHNICAL AND RAB MEETINGS

A technical meeting is scheduled for Wednesday, March 25, 1998 at 9:30 a.m.

The next quarterly RAB meeting is scheduled for Wednesday, April 22, 1998 at 9:30 a.m.

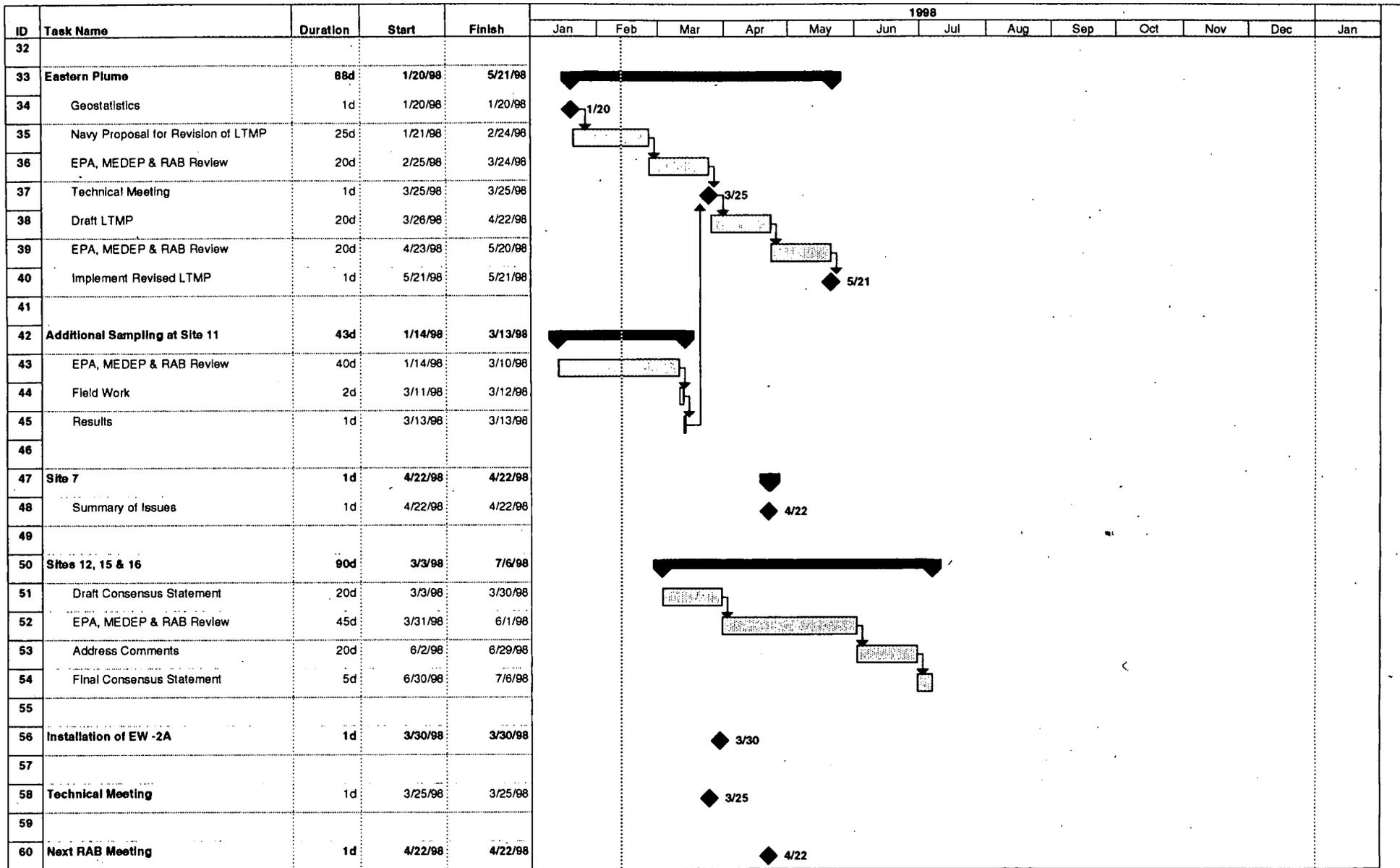
ATTACHMENT 1



Project: Schedule
Date: 2/12/98

Task [Task bar] Milestone [Milestone diamond]
Progress [Progress bar] Summary [Summary bar]

Rolled Up Task [Rolled Up Task bar] Rolled Up Progress [Rolled Up Progress bar]
Rolled Up Milestone [Rolled Up Milestone diamond]



Project: Schedule
Date: 2/12/98

Task
Progress



Milestone
Summary



Rolled Up Task
Rolled Up Milestone



Rolled Up Progress



ATTACHMENT 2

RESTORATION ADVISORY BOARD MEETING NAVAL AIR STATION, BRUNSWICK, MAINE 14 JANUARY 1998

STATUS OF GEOSTATISTICAL ASSESSMENT OF EASTERN PLUME

- The results of the 70% complete geostatistics were discussed at technical meeting held on 5 November 1997. The hypothesis to be tested during the geostatistical assessment were discussed.
- The remaining geostatistical assessment was completed based on the discussions held during the technical meeting.
- The geostatistical assessment of the Eastern Plume has been completed and the report is currently undergoing review.
- The Draft Geostatistical Assessment of the Eastern Plume is scheduled to be issued in February 1998.

REVISION OF THE LONG TERM MONITORING PLAN

- The Revision of the Long Term Monitoring Plan is currently being completed.
- The LTMP revision will contain revised monitoring points, analytical methods and sampling techniques.
- A separate LTMP will be issued for Sites 1 and 3 and Eastern Plume, Site 9 and Building 95.
- The final LTMP revisions will be issued following conclusion of the Geostatistical Assessment of the Eastern Plume.

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SUMMARY OF MONITORING EVENT 10 FIELD ACTIVITIES (NOVEMBER 1997)

- Event 10 was completed between 3 to 19 November 1997.

SITES 1 & 3

- 15 of 16 monitoring wells sampled; MW-202B was not sampled due to insufficient water to collect sample.
- 7 of 7 planned surface water and sediment samples were collected.
- 3 of 5 leachate sample station aqueous samples were collected (LT-02 and LT-04 were dry). 5 of 5 sediment samples were collected from leachate sample stations.

EASTERN PLUME

- 36 of 36 planned ground-water samples were collected.

GWETS/EXTRACTION WELLS

- 7 of 7 extraction wells sampled; 3 of 3 planned treatment plant samples were collected.
- Sites 1 and 3 extraction wells (EW-6 and EW-7) were deactivated on 19 November 1997.

SITE 9

- 1 of 3 planned surface water, sediment and 1 leachate station samples seep/sediment were collected. SW-11 and SW-12 were flooded by the surface water impoundment pond.
- 9 of 9 planned ground-water samples were collected.

BUILDING 95

- No samples were collected during Monitoring Event 10. Annual sampling scheduled in August 1998.

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SITES 1 & 3 WATER ELEVATIONS

- Water elevations in shallow landfill wells continue to decrease (see attached graph).
- Water elevations in deep landfill wells continue to decrease (see attached graph).
- Water elevations at one well (MW-217A) increased approximately 2 ft since, although no other significant increase in water elevations noted to date following the deactivation of EW-6 and EW-7 in November 1997.

GROUND-WATER TREATMENT PLANT

LANDFILL INFLUENT

- Landfill influent flow from EW-6 and EW-7 was terminated on 19 November 1997 based on diminishing pumping yield and declining water elevations within the Sites 1 and 3 Landfill.
- EW-6 and EW-7 well assemblies, controls, and associated equipment have been removed from the wells and placed in storage at the treatment plant.
- Monthly Water Elevations are being collected from landfill monitoring points.

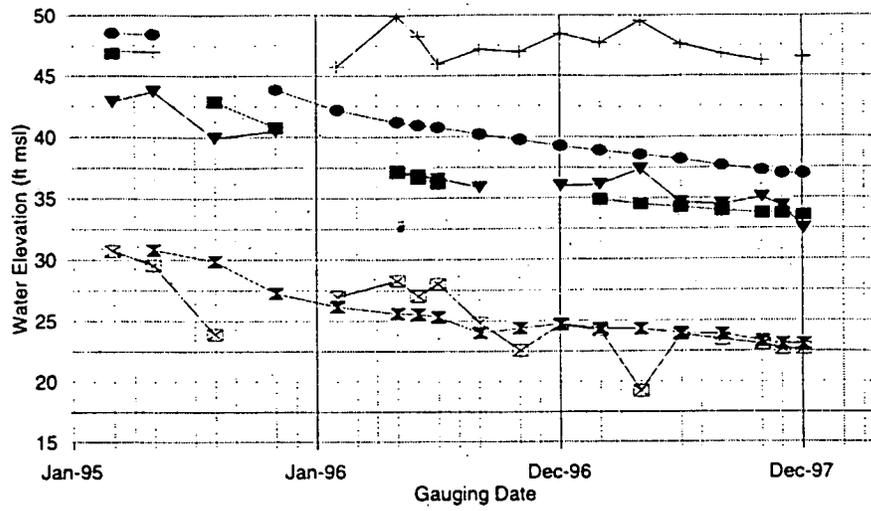
EASTERN PLUME INFLUENT

- Extraction wells EW-1, EW-2, EW-3, EW-4, and EW-5 are currently operating without operational problems (i.e., low turbidity) at a combined extraction rate of 73 gpm.
- Extraction rates at individual wells, as of 30 December 1997, include:

EW-1	11 gpm	EW-2	24 gpm	EW-3	9 gpm
EW-4	19 gpm	EW-5	10 gpm		

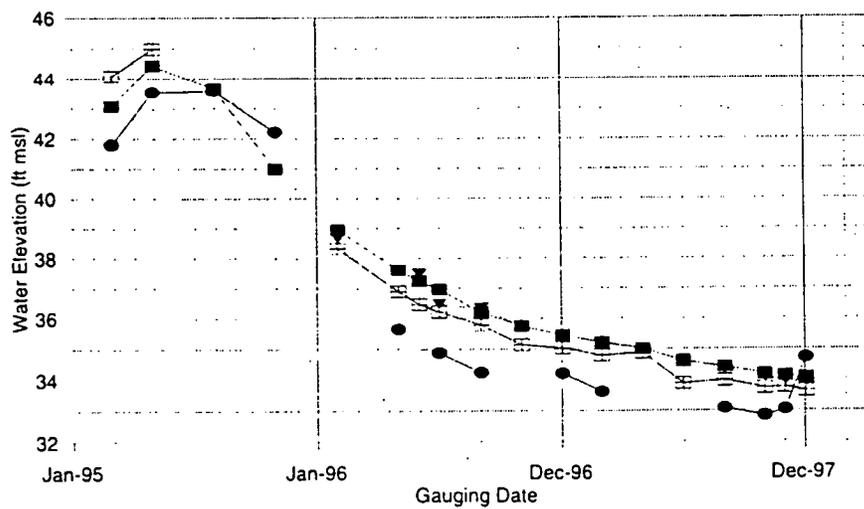
- The Combined Eastern Plume Influent flow is comparable to the previous quarter with the exception of EW-3, where flow has diminished gradually over the operational period. Pump fouling is suspected, and pump assembly is scheduled for removal, inspection, and reinstallation to increase yield.

Shallow Landfill Wells Water Elevations



-■- MW-234
-⊗- MW-210B
-▼- MW-217B
-●- MW-211B
-+- MW-201R
-⊗- MW-215

Deep Landfill Wells Water Elevations



-■- MW-216A
-●- MW-217A
-⊗- MW-232A
-▼- MW-233

ATTACHMENT 3

Paper Reduction for Long Term Monitoring Reports

Purpose – Long Term Monitoring Reports have traditionally been voluminous and while using a great deal of paper they also use a large amount of space. The following alternatives are being presented for discussion.

Alternative 1 - Provide digital copy of report with text in Adobe format and data in currently supplied electronic format.

Text	This would consist of the text of the report in Adobe Acrobat format (*.pdf). This format provides the reader with a page that looks exactly like a printed page, including graphs & charts. The digital copy would also contain the Adobe Reader such that no additional software would be required for the user.
Data	Provide electronic data as currently supplied only file will be available on the CD in lieu of 3 ½ inch disk
Advantages	No paper would be transmitted. The reader would be able to print out anything from report. Files could be accessed directly on Future NAS Brunswick Web Page
Disadvantages	Actual Form 1's would not be scanned.

Alternative 2 - Provide digital copy of report with text in Adobe format and data in currently supplied electronic format.

Text	Same
Data	All Form 1's would be scanned.
Advantages	Same as Alternative 1
Disadvantages	Additional time required scanning all Form 1's.

Alternative 3 - Provide text of report in paper form and data as electronic form only.

Text	No change as to how report is currently supplied
Data	Data would be provided as currently provided in electronic form only.
Advantages	Reduce a large amount of paper by not reproducing all Form 1's
Disadvantages	May still have to be scanned to include on Web Page