

December 14, 2016

Special Master Susan Calkins
2112 Promontory Point Lane
Gold River, CA 95670



**Subject: Monthly Status Report 11 for November 2016
Penobscot River Estuary Phase III - Engineering Study**

Dear Ms. Calkins:

Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler) is pleased to submit this Monthly Status Report for the Penobscot River Estuary Phase III - Engineering Study. This report covers the period from November 1, 2016 through November 31, 2016. The monthly report has been re-formatted to include more detailed descriptions of activities performed by Task during the reporting period, as well as proposed activities by Task for the following period. A cash flow projection for the following 6-month period is also attached.

ACTIVITIES AND EVENTS DURING THE REPORTING PERIOD

Task 1 - Understanding the Problem and Existing Background Information

- No activities were conducted under this task during the reporting period.

Tasks 2/2A - Technologies and Remedial Approaches for Consideration

- *Work Order 2A-010 - Technology Screening Report: Report Revisions*
 - Work Order Submitted to Special Master/Litigants on November 18, 2016
 - Funding authorization for this Work Order received from Special Master/Mallinckrodt on November 30, 2016
- *Work Order 2A-020 - Treatability/Pilot Studies: Scoping*
 - Work Order Submitted to Special Master/Litigants on November 18, 2016
 - Funding authorization for this Work Order received from Special Master/Mallinckrodt on November 30, 2016

Tasks 3/3A - Risk Reduction Evaluation

- Reviewed Litigant comments on biota trending analyses, received November 23, 2016, and discussed implications to proposed Amec Foster Wheeler technical approach
- Continued limited BSAF calculations for biota
- *Work Order 03A-010 - Trend Analyses, BSAFs, PRGs:*
 - Work Order submitted to Special Master/Litigants on December 12, 2016
- *Work Order 03A-020 – Baseline Risk Assessments:*
 - Work Order submitted to Special Master/Litigants on December 12, 2016

Correspondence:
Amec Foster Wheeler
511 Congress Street, Suite 200
Portland, Maine 04101
Tel 207-775-5401
Fax 207-772-4762

Task 4 - Potential Data Needs and Additional Field Work

- *Work Orders 003/003A - Mobile Sediment Pool Characterization:*
 - Reviewed field records and prepared analytical plan for samples collected in October 2016 under WO 003A
 - Reviewed vendor invoices associated with field work conducted in October 2016
 - Validation of sediment and surface water analytical data collected in June 2016 under WO 003 was completed during the reporting period
 - Charges under WO 003A during this time period also included travel expenses for field work conducted in October 2016
 - At the current time, the remaining scope of WOs 003/003A is expected to be completed within budget
- *Work Order 004 - 2016 Sediment and Water Quality Monitoring:*
 - Completed data validation for August-October 2016 monthly surface water analytical data
 - Completed data validation for July-August 2016 sediment analytical data
 - Submitted updated project database including validated 2016 water quality monitoring and sediment data to the project SharePoint site on December 2, 2016 for the Litigants
 - Review and assess 2012 PRMS Monitoring report statistical approaches
 - Travel to Penobscot River to change battery on turbidity meter at Eddington, ME
 - At the current time, the remaining scope of WO 004 is expected to be completed under budget
- *Work Order 005 - 2016 Biota Monitoring:*
 - Analyses of bird blood, insects, spiders, and polychaetes completed at Eurofins laboratory in Bothell, WA
 - Analyses of fish and shellfish samples collected in September 2016 continued at Eurofins laboratory in Bothell, WA
 - Data validation of September 2016 fish and shellfish sample analytical data initiated
 - At the current time, the remaining scope of WO 005 is expected to be completed within budget; however, the availability of black ducks for sampling in January 2017 may impact schedule and funding requirements
- *Work Order 007 - 2015 ME DMR Lobster Analyses:*
 - Submitted Data Package containing technical memorandum and electronic analytical data for the 2015 ME DMR Lobster and Crab sample analyses to the Special Master, Litigants, and Dr. Carl Wilson at the ME DMR on December 2, 2016.
 - With the exception of processing analytical laboratory invoices, no further activities are planned under this work order
- *Work Order 04A-010 - Analytical Methods Evaluation and OC Study (formerly Work Order 012):*
 - Work Order 04A-010 submitted to Special Master/Litigants on December 1, 2016

Task 5 - Phase III Engineering Study Report

- No activity during the reporting period

Tasks 6/6A – Meetings/Communications

- *Work Order 06A-010 - Meetings/Reporting: Nov 2016 thru July 2017*
 - Submitted to the Special Master/Litigants November 18, 2016
 - Received authorization for funding from Mallinckrodt on November 30, 2016
- Prepared and submitted meeting minutes from the October 27, 2016 Quarterly Status Meeting in Boston, MA, to the Special Master/Litigants on November 22, 2016
- November 15, 2016 – Amec Foster Wheeler submitted Invoice # J02205805 and Monthly Report for the month of October 2016 to the Special Master/Litigants
- November 16, 2016 – Amec Foster Wheeler submitted an updated list of awarded, current, and future Work Orders for the project, as well as the current project schedule, to the Special Master and Litigants
- Prepared for and attended November 17, 2016 Monthly Project Status Call with Special Master and Litigants
- Prepared and submitted meeting minutes from the November 17, 2016 Monthly Project Status Call to the Special Master/Litigants on November 22, 2016

Task 7 – Community Involvement

- *Work Order 006 - Community Involvement:*
 - Received comments from NRDC on website content December 1, 2016

PROPOSED ACTIVITIES FOR THE FOLLOWING PERIOD

Task 1 - Understanding the Problem and Existing Background Information

- No further activity planned under this task.

Tasks 2/2A - Technologies and Remedial Approaches for Consideration

- *Work Order 2A-010 - Technology Screening Report: Report Revision*
 - Initiate revisions to Draft Technology Screening Report based on comments from Litigants; Final Report due to Special Master/Litigants by February 3, 2017
- *Work Order 2A-020 - Treatability/Pilot Studies: Scoping*
 - Initiate preparation of Draft Treatability/Pilot Study Scoping Memorandum; memorandum due to Special Master/Litigants by January 25, 2017
- Prepare draft *Work Order 2A-100 - Recovery Times & Sediment(Hg) Transport*, which consists of the following elements:
 - Evaluate spatial variability of water column characteristics downstream of Fort Point;
 - Evaluate sediment and Hg outflux downstream of Fort Point;
 - Evaluate sediment and Hg influx and fate upstream of former Veazie Dam location;

- Evaluate vertical distribution of mobile pool mud and wood waste transport – Mendall Marsh and Orland River;
- Conduct in-situ measurements to evaluate surface sediment stability;
- Refine surface sediment Hg characterization upstream of Orono, ME;
- Characterize total tidal currents In the estuary;
- Refine dissolved versus suspended Hg equilibrium;
- Refine interpolation of velocity and bed shear stress; and
- Refine mass estimates of Hg in mobile pool.

Task 3 - Risk Reduction Evaluation

- *Work Order 03A-010 - Trend Analyses, BSAFs, PRGs:*
 - Pending authorization of funding, initiate tasks under work order
- *Work Order 03A-020 – Baseline Risk Assessments:*
 - Pending authorization of funding, initiate tasks under work order

Task 4 - Potential Data Needs and Additional Field Work

- *Work Orders 003/003A - Mobile Sediment Pool Characterization:*
 - Develop tables and figures documenting observations and visual characterization of October 2016 field sampling for presentation to the Special Master/Litigants at the January 19, 2017 Quarterly Project Status Meeting
- *Work Order 004 – 2016 Sediment and Water Quality Monitoring:*
 - Continue development of 2016 Sediment and Water Quality Monitoring Report, due as a draft to the Special Master/Litigants by February 22, 2016
 - Process remaining subcontractor invoices
- *Work Order 005 – 2016 Biota Monitoring:*
 - Laboratory to complete analyses of fish and shellfish samples collected in September 2016
 - Continue data validation of September 2016 fish and shellfish analytical data; anticipated to be completed in early January 2017
 - Initiate development of the 2016 Biota Monitoring Report
 - Prepare for black duck sampling in January 2017' coordinate with ME DIFW
- *Work Order 007 - 2015 ME DMR Lobster Analyses:*
 - With the exception of processing analytical laboratory invoices, no further activities are planned under this Work Order
- *Work Order 04A-010 - Analytical Methods Evaluation and OC Study (formerly Work Order 012):*
 - Respond to Mallinckrodt comments on WO 04A-010 and re-issue to Special Master/Litigants by December 21, 2016
- *Work Order 04A-020 - Analyses/Evaluation of WO 003A Samples:*
 - Prepare and submit work order to Special Master/Litigants by December 21, 2016

- Pending authorization of funding, initiate tasks under work order, including planning for mobilization to the field for sample processing

Task 5 - Phase III Engineering Study Report

- No activities planned for the upcoming reporting period

Task 6 – Meetings/Communications

- Respond to NRDC/Mallinckrodt comments on Project Schedule issued November 16, 2016
- Prepare and submit invoice, monthly report, cash flow projection, and updated project schedule for November 2016 to the Special Master/Litigants by December 15, 2016
- Attend Monthly Project Status Call on December 15, 2106 with the Special Master/Litigants.
- Prepare for Quarterly Project Status Meeting to be held in Boston, MA on January 19, 2017

Task 7 – Community Involvement

- Respond to NRDC/Mallinckrodt comments on the draft website mock-up
- Provide link to revised draft website (password-protected) for Special Master and Litigant review of format and proposed content

SCHEDULE UPDATE, FUTURE MEETINGS, AND CONFERENCE CALLS

- Monthly Project Status Calls will be held from 2-3PM (Eastern time) on the following dates:
 - December 15, 2016
 - February 2017 (TBD)
 - March 2017 (TBD)
 - May 2017 (TBD)
 - June 2017 (TBD)
- Quarterly Status Meetings with the Special Master and Litigants will be held in Boston, MA on the following dates:
 - January 19, 2017
 - April 27, 2017
 - July 20, 2017

ISSUES AND PROBLEMS IDENTIFIED DURING THE REPORTING PERIOD

- The turbidity meter installed at the location of the former Eddington boat ramp lost battery power on November 8, 2016. Troubleshooting indicated that the source of the problem was the frequency of telemetry (transmission of data via cell signal), as well as the high frequency of probe window operation to clean the window surface. The corrective actions Amec Foster Wheeler took included: 1) revisions to the programming code of the unit to reduce load on the battery, and 2) replacement of the original battery.

The corrective actions were implemented the week of November 28, 2016, and are currently proving successful. The corrective actions were conducted within the budget of Work Order 004, and no additional funding is required.

CASH FLOW PROJECTION

Please refer to Attachment A for the Amec Foster Wheeler financial status summary and cash flow projection for the next six months.

If you have any questions regarding the information contained in this report, please call me at 207-651-0315.

Sincerely,



Nelson Walter, PE, LSP, LEP, PMP
Principal Project Manager

Attachments

Attachment A – Cash Flow Projection

cc: Mitchell Bernard (NRDC) Patricia Duft (Mallinckrodt)
Jared Thompson (NRDC) Jeffrey Talbert (Preti Flaherty)
Project File (3616166052)