

October 27, 2017

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



**Subject: Monthly Status Report 21 for September 2017
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 September 1, 2017 through September 30, 2017. A cash flow projection for the following 6-month period is also attached.

ACTIVITIES AND EVENTS DURING THE REPORTING PERIOD

Task 2A - Technologies and Remedial Approaches for Consideration

- *Work Order 2A-030A - Bench-Scale/Pilot Studies: Phase 1 Work Plans - Bench Scale & Pilot-Scale Constructability*
 - No further activities are anticipated under this work order
- *Work Order 2A-040A - Permitting Support for Alternatives Evaluation*
 - Amec Foster Wheeler compiled meeting minutes for July 13, 2017 meeting held in Bangor Maine with NOAA, USACE, ME DEP, ME DIFW, and ME DMR to discuss permitting issues associated with potential remedial actions
 - August 27, 2017: Issued letter to Maine State Historic Preservation Office (SHPO) requesting locations of historical significance within the Penobscot River Estuary
- *Work Order 2A-051 - Leachability/Toxicity Testing*
 - Amec Foster Wheeler collected and submitted sediment/water samples for the Leachability/Toxicity testing to subcontracted laboratories
- *Work Order 2A-053 - Dewatering / Flocculant Testing / Water Treatment*
 - Amec Foster Wheeler collected and submitted sediment/water samples for the Dewatering / Flocculant Testing / Water Treatment activities to subcontracted laboratories
- *Work Order 2A-054 - Sediment Erosion and Transport Testing*
 - The US Army's Environmental Research and Development Center mobilized to the site and conducted Sedflume testing in late September 2017
- *Work Order 2A-055 – Amendment Test Plot Re-sampling*
 - Dr. Cindy Gilmour of the Smithsonian Environmental Research Center mobilized to the site in September 2017 and collected sediments and porewater for the Amendment Test Plot Re-sampling
- *Work Order 2A-080 – Alternatives Evaluation Report*
 - Development of Alternatives Analysis Report continued in September 2017

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- *Work Order 2A-100 – Hydrodynamic Evaluation*
 - Amec Foster Wheeler continued development of the 2-D hydrodynamic model
 - In September 2017, the USGS mobilized to the site, installed several tide gauges, and conducted ADCP and CTD profiles in the river

Tasks 3/3A - Risk Reduction Evaluation

- *Work Order 3A-010 - BAFs/BSAFs, Biota Trending Analysis:*
 - September 15, 2017: Amec Foster Wheeler submits the Final BSAF Technical Memorandum with revisions based on Mallinckrodt comments
- *Work Order 3A-020 – Baseline Risk Assessments:*
 - Work on baseline risk assessments continued September 2017

Tasks 4/4A - Potential Data Needs and Additional Field Work

- *Work Order 004 - 2016 Sediment and Water Quality Monitoring:*
 - September 12, 2017: Amec Foster Wheeler submits the Final 2016 Sediment and Water Quality Monitoring Report with revisions based on comments from NRDC and Mallinckrodt
- *Work Order 005 - 2016 Biota Monitoring:*
 - No further activities are anticipated under this work order
- *Work Order 4A-010 - Analytical Methods Evaluation and OC Study (formerly Work Order 012):*
 - September 15, 2017: Analytical Methods Evaluation Technical Memorandum submitted to the Special Master/Litigants
 - Continued development and refinement of the Conceptual Site Model for the project
- *Work Order 4A-020 - Analyses/Evaluation of WO 003A Samples:*
 - September 20, 2017: Comments on 2016 Mobile Sediment Report received from Mallinckrodt
- *Work Order 4A-030 – 2017 Marsh Platform Sediment Characterization:*
 - Analyses of WO 4A-030 samples continued
- *Work Order 4A-040 – 2017 Sediment and Water Quality Monitoring:*
 - Analyses of WO 4A-040 samples continued; data validation initiated
 - Periodic downloads of the turbidity meter at Eddington were made throughout the period; the meter is functioning properly
- *Work Order 4A-050 – 2017 Biota Monitoring:*
 - Amec Foster Wheeler completed 2017 fish and shellfish biota monitoring in September 2017

- *Work Order 4A-060 – 2017 Additional Mobile Pool Characterization:*
 - During the week of September 18, 2017, Amec Foster Wheeler conducted physical sampling of the mobile sediment pool using nets and pumping methodologies
- *Work Order 4A-070 – 2017 Intertidal and Subtidal Sediment Characterization:*
 - Intertidal and subtidal sediment collection for this work order was completed in September 2017
- *Work Order 4A-080 – Thin Interval Coring*
 - Continued sediment core collection for this work order in September 2017
 - Some sediment cores were transported to Amec Foster Wheeler's Durham, NC office and Dr. Yeager's University of Kentucky laboratory for processing

Tasks 5A – Phase III Engineering Study Report

- *Work Order 5A-010 - Phase III Engineering Study Report*
 - No activities were conducted under this work order during the reporting period

Tasks 6A – Meetings/Communications

- *Work Orders 6A-010/6A-020 - Meetings/Reporting:*
 - September 1, 2017: Amec Foster Wheeler submitted Invoice # J02207063 for the month of July 2017 to the Special Master/Litigants
 - September 1, 2017: Amec Foster Wheeler submitted the Monthly Report for the month of July 2017 to the Special Master/Litigants
 - September 11, 2017: Amec Foster Wheeler submitted meeting notes and slide deck from July 13, 2017 Meeting w/ Regulatory Agencies in Bangor, Maine to the Special Master/Litigants
 - September 11, 2017: Amec Foster Wheeler submitted meeting notes and slide deck from July 20, 2017 Quarterly Project Status Meeting to the Special Master/Litigants
 - September 14, 2017: Monthly Project Status Call held with the Special Master/Litigants
 - September 25, 2017: Amec Foster Wheeler submitted Invoice # J10104394 for the month of August 2017 to the Special Master/Litigants
 - Prepared for the October 4-5, 2017 Quarterly Project Status Meeting in Bangor, Maine

Task 7/7A – Community Involvement

- *Work Orders 006/7A-010 - Community Involvement:*
 - September 1, 2017: Amec Foster Wheeler submitted the presentation and list of significant comments from meetings with lobstermen in Belfast and Islesboro to the Special Master and Litigants
 - Updated the website document repository to include the most recent monthly reports and approved work orders

PROPOSED ACTIVITIES FOR THE FOLLOWING PERIOD

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

- *Work Order 2A-040A - Permitting Support for Alternatives Evaluation*

- Continue permitting support for Alternatives Evaluation
- *Work Order 2A-051 - Leachability/Toxicity Testing*
 - Monitor progress of subcontractor leachability and toxicity testing
- *Work Order 2A-053 - Dewatering / Flocculant Testing / Water Treatment*
 - Monitor progress of subcontractor dewatering, flocculant, and water treatment testing
- *Work Order 2A-054 - Sediment Erosion and Transport Testing*
 - ERDC (subcontractor) will prepare report for Amec Foster Wheeler documenting the Sedflume testing completed in September 2017
- *Work Order 2A-055 – Amendment Test Plot Re-sampling*
 - Dr. Cindy Gilmour will analyze sediment and water samples collected as part of the Amendment Plot Re-sampling Study conducted in September 2017
- *Work Order 2A-080 - Alternatives Evaluation*
 - Continue development of remedial alternatives
- *Work Order 2A-100 - Hydrodynamic Evaluation*
 - Continue development of 2-D hydrodynamic model
 - Monitor progress of USGS data reduction of ADCP and CTD data collected in September 2017

Task 3 - Risk Reduction Evaluation

- *Work Order 3A-010 – BAFs/BSAFs, Biota Trend Analyses:*
 - No further activities are anticipated under this work order
- *Work Order 3A-020 – Baseline Risk Assessments:*
 - Continue development of baseline risk assessments

Task 4 - Potential Data Needs and Additional Field Work

- *Work Order 004 – 2016 Sediment and Water Quality Monitoring:*
 - No further activities are anticipated under this work order
- *Work Order 005 – 2016 Biota Monitoring:*
 - No further activities are anticipated under this work order
- *Work Order 4A-010 - Analytical Methods Evaluation and OC Study (formerly Work Order 012):*
 - Respond to NRDC and Mallinckrodt comments on the Draft 2016 Analytical Methods Evaluation Technical Memorandum
 - Continue to refine and update the CSM
- *Work Order 4A-020 - Analyses/Evaluation of WO 003A Samples:*
 - Respond to NRDC and Mallinckrodt comments on the Draft 2016 Mobile Sediment Characterization Report
- *Work Order 4A-030 - Additional Marsh Platform Characterization:*
 - Continue analyses of core sediment samples
- *Work Order 4A-040 - 2017 Sediment & Water Quality Monitoring:*
 - Continue analyses of core sediment samples
- *Work Order 4A-050 - 2017 Biota Monitoring*

- Continue data validation of avian and insect biota sample data
- Monitor laboratory analytical progress for fish and shellfish samples collected in September 2017
- *Work Order 4A-060 - Additional Mobile Pool Characterization*
 - Develop Draft 2017 Additional Mobile Sediment Characterization Technical Memorandum
- *Work Order 4A-070 - Additional Intertidal and Subtidal Sediment Characterization*
 - Process sediment cores in Amec Foster Wheeler Durham, NC laboratory and submit samples to analytical laboratory for analyses
- *Work Order 4A-080 - Sediment Geochronology Cores*
 - Complete sediment core collection
 - Transport cores to Amec Foster Wheeler's Durham, NC laboratory and Dr. Yeager's University of Kentucky laboratory for processing
 - Continue coordination with universities and laboratories regarding core sectioning and analyses

Task 6A – Meetings/Communications

- *Work Orders 6A-010/6A-020 - Meetings/Reporting:*
 - Prepare and submit monthly report, cash flow projection, and updated project schedule for August 2017 to the Special Master/Litigants
 - Prepare and submit invoice, monthly report, cash flow projection, and updated project schedule for September 2017 to the Special Master/Litigants
 - Prepare for and attend October 4-5, 2017 Quarterly Project Status Meeting in Bangor, Maine
 - Submit meeting minutes for August 17, 2017 Monthly Project Status Call

Task 7/7A – Community Involvement

- *Work Orders 006/7A-010 - Community Involvement:*
 - Initiate preparation of Draft Community Involvement Plan
 - Monitor incoming messages from interested parties regarding the website content
 - Follow-up by phone or email with interested parties

FUTURE MEETINGS AND CONFERENCE CALLS

- The next Monthly Project Status Call will be held from 3:00 – 5:00 PM (Eastern time) on Wednesday, November 1, 2017.

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.

PROJECT DELIVERABLES SCHEDULE

The schedule below provides an overview of project deliverable dates:

Monthly Status Report 21 for September 2017
 Penobscot River Estuary Phase III - Engineering Study

| Work Order | Deliverable | Draft to SM/Litigants | Comments Due from Litigants | Final to SM/Litigants |
|------------|---|-----------------------|-----------------------------|-----------------------|
| 004 | 2016 Sediment and Surface Water Monitoring Report | 3/28/2017 | | 9/12/2017 |
| 005 | 2016 Biota Monitoring Report | 5/28/2017 | | 8/30/2017 |
| 3A-010 | Technical Memorandum - BSAFs | 7/12/2017 | | 9/15/2017 |
| 4A-020 | 2016 Mobile Sediment Characterization Report | 7/12/2017 | N/A | N/A |
| 4A-010 | Technical Memorandum - Analytical Methods Evaluation | 9/15/2017 | N/A | N/A |
| 4A-030 | Technical Memorandum - 2017 Marsh Platform Characterization | 12/8/2017 | 1/26/2018 | N/A |
| 4A-040 | 2017 Sediment and Surface Water Monitoring Report | 12/13/2017 | 1/26/2018 | 3/13/2018 |
| 7A-010 | Community Involvement Plan | 12/15/2017 | 2/2/2018 | 3/15/2018 |
| 2A-100 | Hydrodynamic Model Report | 12/22/2017 | 2/9/2018 | N/A |
| 4A-060 | Technical Memorandum - 2017 Additional Mobile Sediment Characterization | 1/11/2018 | 3/2/2018 | N/A |
| 4A-070 | Technical Memorandum - 2017 Intertidal & Subtidal Sediment Characterization | 2/2/2018 | 3/21/2018 | N/A |
| 3A-020 | Risk Assessment Report | 2/9/2018 | 3/30/2018 | 5/10/2018 |
| 4A-050 | 2017 Biota Monitoring Report (w/out Black Duck data) | 2/16/2018 | 4/5/2018 | 5/17/2018 |
| 4A-080 | Geochron Core Report | 2/28/2018 | 4/13/2018 | N/A |
| 2A-080 | Alternatives Evaluation Report | 3/15/2018 | 5/3/2018 | 6/13/2018 |
| 3A-020 | Risk Reduction Report | 3/15/2018 | 5/3/2018 | 6/13/2018 |
| 5A-010 | Phase III Engineering Study Report | 3/31/2018 | 5/15/2018 | 6/29/2018 |

N/A - not applicable; comments from SM/Litigants will be incorporated in Final version to be included as an Appendix to the Alternatives Evaluation Report
 Shaded dates indicate actual completion dates

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)