

July 18, 2017

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



**Subject: Monthly Status Report 18 for June 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 June 1, 2017 through June 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-010 - Technology Screening Report: Report Revisions*
 - No activities were conducted under this task during the reporting period.
 - All activities under this task are 100% complete and no further charges are anticipated.
- *Work Order 2A-020 - Treatability/Pilot Studies: Scoping Memorandum*
 - No activities were conducted under this task during the reporting period.
 - All activities under this task are 100% complete and no further charges are anticipated.
- *Work Order 2A-030A - Bench-Scale/Pilot Studies: Phase 1 Work Plans - Bench Scale & Pilot-Scale Constructability*
 - Development of the following Work Plans continued in June 2017: Dewatering Work Plan, Leachability & Toxicity Work Plan, Resampling Amendment Test Plot Work Plan, Sediment Erosion & Transport Work Plan
- *Work Order 2A-040A - Permitting Support for Alternatives Evaluation*
 - Amec Foster Wheeler subcontracted Normandeau Associates for permitting support regarding the in-water work windows and endangered species
 - Contact with NOAA, USACE, ME DEP, and ME DMR was made to schedule a meeting in July 2017 to discuss permitting issues associated with potential remedial actions
- *Work Order 2A-080 – Alternatives Evaluation Report*
 - Development of Alternatives Analysis Report continued in June 2017
- *Work Order 2A-100 – Hydrodynamic Evaluation*
 - Amec Foster Wheeler initiated development of the 2-D hydrodynamic model
 - Subcontracting of the US Army Corps of Engineers, ERDC for SedFlume testing and the USGS for ADCP and CTD profiles in the river were initiated

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Tasks 3/3A - Risk Reduction Evaluation

- *Work Order 3A-010 - BAFs/BSAFs, Biota Trending Analysis:*
 - The 2016 BSAF Technical Memorandum was prepared for submittal in July 2017
- *Work Order 3A-020 – Baseline Risk Assessments:*
 - Work on baseline risk assessments continued in June 2017

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

- *Work Orders 003/003A - Mobile Sediment Pool Characterization:*
 - No activities were conducted under this task during the reporting period.
 - All activities under this task are 100% complete and no further charges are anticipated.
- *Work Order 004 - 2016 Sediment and Water Quality Monitoring:*
 - Comments from NRDC and Mallinckrodt regarding the Draft 2016 Sediment and Water Quality Monitoring Report were discussed on the June 15, 2017 Monthly Project Status call
 - Revisions to the Draft 2016 Sediment and Water Quality Monitoring Report continued
- *Work Order 005 - 2016 Biota Monitoring:*
 - June 16, 2017: Comments on the 2016 Draft Biota Monitoring Report were received from NRDC
 - At the current time, the remaining scope of WO 005 is expected to be completed within budget
- *Work Order 4A-010 - Analytical Methods Evaluation and OC Study (formerly Work Order 012):*
 - Work continued on the Analytical Methods Development and Comparison Study, including development of a draft technical memorandum
 - Continued development and refinement of the Conceptual Site Model for the project
- *Work Order 4A-020 - Analyses/Evaluation of WO 003A Samples:*
 - Development of the Draft report of findings from WOs 003/003A/4A-020 continued (scheduled for submission in July 2017)
- *Work Order 4A-030 – 2017 Marsh Platform Sediment Characterization:*
 - June 8, 2017: Amec Foster Wheeler received work order authorization from the Court
 - Amec Foster Wheeler developed sediment core sampling protocol for shallow sediment cores
 - Planning for the July field event was initiated
- *Work Order 4A-040 – 2017 Sediment and Water Quality Monitoring:*
 - A temporary (rental) turbidity meter was installed on June 20, 2017, while the original turbidity meter and system malfunctions are diagnosed.
 - Planning was initiated for 2017 sediment monitoring to be conducted in July 2017
- *Work Order 4A-050 – 2017 Biota Monitoring:*
 - Planning of the field schedule and staffing for 2017 biota monitoring were completed, and bird, spider, and insect sampling was initiated on June 19, 2017

- The following table presents a summary of biota sampling in June 2017:

	W-17	MM-SE	MM-SW	Addison
Spiders	5	2	5	5
Terrestrial Insects	5	5	5	5
Nelson's Sparrow	12	15	15	15
Red-Winged Blackbird	5	6	6	0

Targets are:

- 15 individual birds per species per location
- 5 composite samples of spiders/insects per location

- *Work Order 4A-060 – 2017 Additional Mobile Pool Characterization:*
 - June 8, 2017: Amec Foster Wheeler received authorization from the Court to proceed with WO 4A-060
- *Work Order 4A-070 – 2017 Intertidal and Subtidal Sediment Characterization:*
 - June 8, 2017: Amec Foster Wheeler received authorization from the Court to proceed with WO 4A-070

Tasks 5A – Phase III Engineering Study Report

- *Work Order 5A-010 - Phase III Engineering Study Report*
 - June 15, 2017: Amec Foster Wheeler attended Monthly Project Status Call with

Tasks 6A – Meetings/Communications

- *Work Order 6A-010 - Meetings/Reporting: Nov 2016 thru July 2017*
 - June 15, 2017: Amec Foster Wheeler attended Monthly Project Status Call with SM/Litigants
 - June 18, 2017: Amec Foster Wheeler submitted Invoice # J02206834 and Monthly Report for the month of April 2017 to the Special Master/Litigants
 - June 26, 2017: Amec Foster Wheeler submitted meeting minutes to the Special Master/Litigants for the June 15, 2017 Monthly Project Status Call
 - Prepared for July 20, 2017 Quarterly Project Status Meeting with the Special Master/Litigants in Boston, MA
- *Work Order 6A-020 - Meetings/Reporting: Aug 2017 thru Mar 2018*
 - June 29, 2017: Amec Foster Wheeler submitted WO 6A-020 to the Special Master/Litigants

Task 7/7A – Community Involvement

- *Work Order 006 - Community Involvement:*
 - Emails were issued to 59 individuals and/or groups, including:
 - Citizens' groups
 - Industry / Worker groups (such as Maine Lobstermen's Association)
 - Municipalities
 - Penobscot Indian Nation
 - Research / Academic organizations
 - Survey responses received (9 responses to-date) identified:
 - Interest in fact sheets (60%), community meetings (50%)

- Interest in remedial options and the potential for impact (economic / commercial, environmental, navigation)
- All respondents identified an interest in being kept informed and involved
- Preference for being kept up-to-date through written communications (90%) and meetings
- Specific concerns related to the potential remediation activities were identified, such as a municipality considering expanding public use of marina; effectiveness of the remedial approach; commercial navigation
- Follow-up by phone or email has occurred with the following individuals:
 - Representative for the Penobscot lobstermen
 - Captain of the Penobscot Bay & River Pilots Association
 - Representative for the Island Institute
 - Penobscot Indian Nation
- *Work Order 7A-010 – Community Involvement*
 - June 29, 2017: Amec Foster Wheeler submitted WO 7A-010 to the Special Master/Litigants

PROPOSED ACTIVITIES FOR THE FOLLOWING PERIOD

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

- *Work Order 2A-030A - Phase 1 Bench-Scale Treatability Studies Work Plan*
 - Issue draft work plans to the SM/Litigants for review by July 18, 2017
- *Work Order 2A-040A - Permitting Support for Alternatives Evaluation*
 - Prepare for and attend meeting with federal and state regulatory agencies in July to discuss permitting issues associated with potential remedial alternatives
- *Work Order 2A-055 – Amendment Test Plot Re-sampling*
 - Prepare and submit WO 2A-055 for the Mendall Marsh amendment plots re-sampling
- *Work Order 2A-080 - Alternatives Evaluation*
 - Continue development of remedial alternatives
- *Work Order 2A-100: Hydrodynamic Evaluation*
 - Continue development of 2-D hydrodynamic model
 - Prepare for field events to collect tidal levels, ADCP, CDT, and SedFlume data

Task 3 - Risk Reduction Evaluation

- *Work Order 3A-010 – BAFs/BSAFs, Biota Trend Analyses:*
 - Submit the Draft 2016 BSAF Technical Memorandum
- *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:*
 - Revise Draft 2016 Sediment and Water Quality Monitoring Report, and submit Final
- *Work Order 005 – 2016 Biota Monitoring:*
 - Await receipt of Mallinckrodt comments on Draft 2016 Biota Monitoring Report
 - Revise Draft 2016 Biota Monitoring Report based on comments from the Litigants

- *Work Order 4A-010 - Analytical Methods Evaluation and OC Study (formerly Work Order 012):*
 - Prepare and submit Technical Memorandum regarding analytical methods development and comparison study
 - Continue to refine and update the CSM
- *Work Order 4A-020 - Analyses/Evaluation of WO 003A Samples:*
 - Submit Draft Technical Memorandum of results of mobile pool investigations conducted under WOs 003, 003A, and 4A-020
- *Work Order 4A-030 - Additional Marsh Platform Characterization:*
 - Initiate collection of sediment cores in July 2017
- *Work Order 4A-040 - 2017 Sediment & Water Quality Monitoring:*
 - Initiate collection of sediment samples as part of the annual monitoring
- *Work Order 4A-050 - 2017 Biota Monitoring*
 - Monitor laboratory analytical progress for samples submitted in June 2016
 - Collect polychaetes and co-located sediments in July 2017
 - Prepare for fish/shellfish collection in early fall 2017
- *Work Order 4A-060 - Additional Mobile Pool Characterization*
 - Initiate geophysical and physical sampling of mobile sediment pool in late July 2017
- *Work Order 4A-070 - Additional Intertidal and Subtidal Sediment Characterization*
 - Initiate collection of sediment samples in late July 2017
- *Work Order 4A-080 - Sediment Geochronology Cores*
 - *Prepare and submit WO 4A-080 for collection and analysis/age-dating of sediment cores*

Task 6A – Meetings/Communications

- Prepare and submit invoice, monthly report, cash flow projection, and updated project schedule for June 2017 to the Special Master/Litigants
- Submit meeting minutes for July 2017 meeting with regulatory agencies regarding permitting
- Prepare for and attend July 20, 2017 Quarterly Project Status Meeting with Special Master/Litigants in Boston, MA
- Submit meeting minutes for July 20, 2017 Quarterly Project Status Meeting with the Special Master/Litigants
- Schedule fall Quarterly Project Status Meeting and Penobscot River boat tour for early October 2017

Task 7/7A – Community Involvement

- *Work Orders 006/7A-010 - Community Involvement:*
- Continue to monitor online survey responses regarding website
- Follow-up by phone or email with interested parties

FUTURE MEETINGS AND CONFERENCE CALLS

- Quarterly Project Status Meetings with the Special Master and Litigants will be held in Boston, MA on the following dates:
 - July 20, 2017
- Monthly Project Status Calls will be held from 2-3PM (Eastern time) on the following dates:
 - August 2017 (TBD)

PROJECT DELIVERABLES SCHEDULE

The schedule below provides an overview of project deliverable dates:

Work Order	Deliverable	Draft	Final
004	2016 Sediment and Surface Water Monitoring Report	3/28/2017	7/14/2017
005	2016 Biota Monitoring Report	5/28/2017	8/30/2017
2A-030	Bench Scale Treatability Work Plans	7/15/2017	
2A-055	Work Order 2A-055 - Amendment Study Plots Re-sampling	7/10/2017	7/12/2017
7A-010	Work Order 7A-010 - Addtl. Support Community Involvement	6/29/2017	7/10/2017
5A-010	Work Order 5A-010 - Phase III Engineering Study Report	6/30/2017	7/3/2017
6A-020	Work Order 6A-020 - Meetings: Aug-Dec2017	6/29/2017	7/5/2017
3A-010	BSAF Tech Memo	7/12/2017	9/14/2017
4A-020	2016 Mobile Pool Characterization Report	7/12/2017	
4A-010	Analytical Methods Evaluation	7/30/2017	
4A-010	Conceptual Site Model Tech Memo	9/30/2017	
4A-030	Technical Memorandum - 2017 Marsh Platform Characterization	11/1/2017	1/15/2018
4A-040	2017 Sediment and Surface Water Monitoring Report	11/1/2017	12/18/2017
3A-020	Risk Assessment	11/9/2017	1/12/2018
4A-070	Technical Memorandum - 2017 Intertidal & Subtidal Sediment Characterization	11/15/2017	1/30/2017
4A-060	Technical Memorandum - 2017 Additional Mobile Pool Characterization	11/30/2017	2/15/2017
2A-100	Hydrodynamic Model	12/1/2017	2/1/2018
006	Community Involvement Plan	12/5/2017	2/5/2018
2A-080	Alternatives Evaluation Report	12/15/2017	3/5/2018
3A-020	Risk Reduction Report	1/19/2018	3/18/2018
5A-010	Phase III Engineering Study Report	1/31/2018	3/31/2018
4A-050	2017 Biota Monitoring Report	3/31/2018	

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)