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MEMORANDUM

TO: James R. Fair P.E., Weston & Sampson Engineers, Inc.

FROM: Sean F. Healey, LSP Weston & Sampson Engineers, Inc.
Prasanta K. Bhunia, LSP Weston & Sampson Engineers, Inc.

DATE: June 14, 2012

SUBJECT: **Potential Environmental Scope of Work and Cost Estimate Proposed Salt Shed - Town of Needham, Massachusetts.**

WSE Project: 2120140.A

This memorandum provides a summary of the potential environmental scope of work and cost estimate in association with the construction of the proposed salt shed at the Recycling and Transfer Station facility at 1407 Central Avenue in Needham, Massachusetts (Site). The structure is proposed in the central portion of the Site, which is located immediately south of a closed municipal landfill. We understand that the proposed structure is a salt shed with an attached storage canopy and vehicle bay, with total combined footprint of approximately 14,300 square feet.

Based on a review of recent geotechnical investigations performed at the Site in the area of the proposed building footprint, we understand that fill material has been identified to a depth of at least 14 feet below grade surface (bgs). The fill material consists of sand fill containing variable amounts of gravel, occasional cobbles; and debris including concrete, bricks, dimensional lumber, metal, and plastic. Minor hydrocarbon odors were identified in the test pits excavated. In one soil boring (B-4), a strong hydrocarbon odor and high photoionization detector (PID) reading was identified. Soil samples were not collected for chemical analysis as part of the geotechnical investigations.

Because of the fill and hydrocarbon impacted soil identified, at this time we are assuming that the Site will be regulated under the Massachusetts Contingency Plan (MCP). However, testing of the soil will be required to confirm this assumption. Based on this assumption, and additional assumptions listed below, the following is a potential scope of work and cost estimate for managing the Site in accordance with the MCP as part of the proposed construction:

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Scope of Work	**Cost Range**
Initial Site Assessment / DEP Notification ▪ Review of Site history and Site assessment of soil and groundwater in proposed construction area. ▪ Preparation and submittal of Release Notification Form (RNF) to DEP.	**$15,000 to $20,000**
Additional Assessment and Report to DEP ▪ Additional subsurface investigation. ▪ Preparation and submittal of Phase I Report and Tier Classification to the DEP.	**$20,000 to $30,000**
Remedial Design and Preparation of Soil Management Plan, and Plans and Specifications ▪ Prepare plans and specification for soil and groundwater management during construction and potential cover requirements.	**$15,000 to $30,000**
Construction Release Abatement Measure (RAM) Plan for Soil Management and Associated Reports to DEP ▪ Preparation and submittal of RAM Plan for soil and groundwater management during construction activities. ▪ Preparation of one RAM Status Report and one RAM Completion Report.	**$20,000 to $30,000**
Soil Management Oversight ▪ On-site documentation of soil and groundwater management activities during construction.	**$25,000 to $50,000**
Soil Transportation and Disposal ▪ Transportation and disposal of impacted soil generated during construction activities (assumes 1,000 to 3,000 tons to in-state lined landfills at $50 ton).	**$50,000 to $150,000**
Other MCP Compliance Activities ▪ Additional assessment (outside the salt shed footprint) ▪ Preparation of Phase II, III, or IV Reports for submittal to DEP. ▪ Preparation and submittal of Response Action Outcome (RAO) Statement and Activity and Use Limitation (AUL) in support of regulatory closure.	**$20,000 to $ 80,000**
Total Potential Cost Estimate	**$165,000 to $390,000**

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ASSUMPTIONS

1.) Site will be regulated under MCP.
2.) Soil management work will be completed within 6 months.
3.) Concentrations are not identified above MCP upper concentration limits (UCLs).
4.) On-site construction documentation of up to 20 hrs. per week for 6 months.
5.) Between 1,000 to 3,000 tons of soil disposal. Assumes app. 50% of soil can be reused on Site.
6.) Groundwater is not impacted and groundwater treatment will not be required.