

AquaBlok® Installation Profiles



Site Location: *US EPA Region 2*
Passaic River – RM 10.9 Action

Project Status: Completed **December 2013**



AquaGate®+PAC 10% Installation Overview

Setting / Purpose: Tidal River location 10.9 miles from Newark Bay – Removal of sediments and addition of a permeable reactive cap to minimize the migration of residual contamination. The project area was approximately 180,000 square feet.

Cap Design / Site Area: Sand and AquaGate+PAC 10% was blended to provide a uniform 10-inch thick cap layer. The mixture consists of 3-inches AquaGate+PAC and 7-inch of sand, blended prior to placement through the water. The permeable reactive capping layer will be covered by geotextile and an approximately 12-inch thick stone armor layer.



Dual Hopper Sand/AquaGate+PAC Mixing



Uniform Sand/AquaGate+Pac Mixture on Belt

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Contaminant(s) of Concern: A range of contaminants exist at the site which are associated with historic manufacturing activities. However, dioxin and PCB are primary contaminants of concern along with a range of metals and PAHs (polynuclear aromatic hydrocarbons).



AquaGate+PAC – Confirmation of Sand/AquaGate+PAC Mixture Placed

Method of AquaGate Placement: Barge-based Telebelt® Conveyor



AquaGate+PAC placement by telebelt

Mixing of sand and AquaGate in feed hopper



View of sand turbidity in water during placement



GPS quality control and documentation of placement



Core sample of mixed layer showing uniform distribution of AquaGate+PAC within capping layer and achievement of target cap thickness

Contractor: TerraSea/Great Lakes Dredging

Engineering Firm: CH2MHill