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
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).

Method of AquaGate Placement: Barge-based Telebelt® Conveyor

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: CH2M Hill