

BACKGROUND

Pease International Maritime Terminal, located directly on the coast of historic Portsmouth, New Hampshire operated for years as a scrap metal depot that would ship materials overseas for recycling.

During routine effluent stormwater sample testing, which is required of any company operating under an Industrial General Stormwater Permit (IGSP), Pease discovered they were exceeding their benchmarks for Total Suspended Solids (TSS). Under penalty of fines and legal action from the New Hampshire Department of Environmental Services, they had to find a solution to their sediment problem.



Three 6-ft Downstream Defender stormwater separators were installed at the Pease International Maritime Terminal to reduce sediment in their effluent TSS

CHALLENGE

Despite implementing a *daily* sweeping of the site and use of catch basin inserts called “silt socks” designed to catch sediment, Pease Terminal continued to be over their benchmarks.

Sediment pollution from the terminal's stormwater had the potential to wreak havoc on the aquatic life in one of America's oldest Northeast Port Cities.



Historic Portsmouth, New Hampshire



Sediment pollution can cloud water causing aquatic plant and animal life to suffocate and eventually die

SOLUTION

Three 6-ft Downstream Defender® stormwater separators were chosen for the site because of their ability capture large amounts of sediment and trash without risk of washout. Additionally, the Downstream Defender can treat high peak flows in a small footprint and it works well on sites with tail water or tidal conditions which was applicable for Pease Terminal given their coastal location.

The systems were installed on site in September of 2012, primarily to address sediment but are also proven to remove:

- TSS
- Trash
- Hydrocarbons
- Sediment-bound metals



OUTCOME

The Downstream Defender was proven to remove over **90%** of sediment particles larger than 500 micron

Third party testing has proven that the Downstream Defender has a TSS removal percentage of over **80%** when flow rates are 4 CFS or less.

