

**United States Environmental Protection Agency  
Region II  
POLLUTION REPORT**

**Date:** Monday, September 16, 2013

**From:** Andrew L. Confortini, OSC

**To:** Tanya Mitchell, USEPA, Region 2, ERRD-SPB

**Subject:** Final

Raritan Bay Slag Site

Old Bridge.Sayreville Waterfront, Old Bridge, NJ

Latitude: 40.3879889

Longitude: -74.3352858

|                          |                        |                            |                |
|--------------------------|------------------------|----------------------------|----------------|
| <b>POLREP No.:</b>       | 4                      | <b>Site #:</b>             | A205           |
| <b>Reporting Period:</b> | 5/09/2013 to 9/16/2013 | <b>D.O. #:</b>             | 0059           |
| <b>Start Date:</b>       | 11/27/2012             | <b>Response Authority:</b> | CERCLA         |
| <b>Mob Date:</b>         | 4/1/2013               | <b>Response Type:</b>      | Time-Critical  |
| <b>Demob Date:</b>       | 5/30/2013              | <b>NPL Status:</b>         | NPL            |
| <b>Completion Date:</b>  | 5/30/2013              | <b>Incident Category:</b>  | Removal Action |
| <b>CERCLIS ID #:</b>     | NJN000206276           | <b>Contract #</b>          | EP-S2-10-03    |
| <b>RCRIS ID #:</b>       |                        |                            |                |

**Site Description**

CERCLA incident category: On-going release of heavy metals into adjacent soil, sand and water. This release has impacted, and continues to impact nearby beaches and shoreline and sediment within this portion of Raritan Bay. The affected areas are currently being utilized by local fisherman, sun bathers and boaters.

**B. Site Description**

The Site is located in the Laurence Harbor section of Old Bridge and in Sayreville along the Raritan Bay. The Site includes Margaret's Creek the Old Bridge Waterfront Park and the western jetty at the Cheesequake Creek Inlet. The portion of the Site that is situated in Laurence Harbor includes Margaret's Creek and the Old Bridge Waterfront Park. Margaret's Creek is open space consisting of wetland and upland areas. The upland area is reported to be filled with debris containing slag and battery carcasses. The Old Bridge Waterfront Park is made up of walking paths, a playground area, several public beaches, and three jetties, not including the two jetties at the Cheesequake Creek Inlet. The park waterfront is protected by a seawall, which is partially constructed with pieces of slag. The western jetty at the Cheesequake Creek Inlet, and the adjoining waterfront area west of the jetty, contains slag as well. The slag was placed at the Site approximately 40 years ago. The seawall, jetties, beach area east of the Cheesequake Creek Inlet, and the western jetty at the Cheesequake Creek Inlet are popular fishing areas. The beaches east of the Cheesequake Creek Inlet and west of the seawall are the most popular for recreation.

EPA has conducted multiple sampling events at the site since 2008 under both the removal and remedial programs. The sampling activities included the collection of soil, sediment, water, biological, and waste samples along the seawall in Laurence Harbor, the western jetty at the Cheesequake Creek Inlet, the beaches situated near these two locations, and the developed portion of the park. Analytical results generated by EPA indicate that significantly elevated levels of lead and other heavy metals are present in the soils, sediment, and surface water in and around both the seawall in Laurence Harbor and the western jetty at the Cheesequake Creek Inlet. Analytical results for surface soil samples collected near the seawall were as high as: 142,000 mg/kg for lead, 12,900 mg/kg for antimony, 3,350 mg/kg for arsenic, and 3,590 mg/kg for copper. Soil samples collected on the western jetty at the Cheesequake Creek Inlet contained lead, at concentrations that ranged from 54,800 mg/kg to 198,000 mg/kg. The maximum concentrations of antimony, arsenic, and copper detected on the western jetty at the Cheesequake Creek Inlet were 3,120 mg/kg, 2,470 mg/kg, and 4,630 mg/kg, respectively. Nine of 13 soil samples collected in and around the seawall and the western jetty at the Cheesequake Creek Inlet exceeded the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure limit for lead (5 mg/l). The

TCLP results for the soil from the western jetty exceeded the limit by a magnitude of approximately 100 to 250 times.

Elevated levels of lead were also identified at several surface water locations on the first beach between the western end of the seawall and the first jetty in Old Bridge Waterfront Park. The average lead concentration of the four highest detections at this location was 1,365 ug/l, with a maximum lead concentration of 1,630 ug/l. Three activity-based water samples collected from the beach area situated between the western end of the seawall and the first jetty had an average total lead concentration of 1,179 ug/l, with a maximum total lead concentration of 1,450 ug/l.

Soil samples collected from upland areas in the Margaret's Creek area identified lead, antimony and arsenic at elevated concentrations.

Based on the findings noted above an emergency removal action was implemented by EPA at the site in April and May of 2009 to secure the site and demarcate areas that contained hazardous substances that presented a threat to public health through direct contact

On October 29, 2012 Hurricane Sandy made landfall along the New Jersey coast. The storm surge and high winds caused catastrophic damage along the entire NJ coast. The Site which is located on the Raritan Bay was severely impacted by the storm. The storm surge resulted in severe erosion to the peninsula at Margaret's Creek, erosion of cap material at numerous locations along the top of the seawall, destruction of approximately 2,000 feet of security fence installed to demark contaminated from non contaminated areas, loss of signage notifying the public of health concerns associated with lead and deposition of thousands of tons of sand/debris from potentially contaminated areas onto previously uncontaminated areas that are used by the public for recreation.

#### **Current Activities**

The following removal action tasks were completed during this reporting period:

:Final inspection of impacted portions of the park and jetty.

#### **Planned Removal Actions**

This concludes the immediate response portion of the Site work.

#### **Next Steps**

To be determined.

#### **Key Issues**

None at this time.

#### **Disposition of Wastes**

| <b>Waste Stream</b>                     | <b>Quantity</b> | <b>Manifest #</b> | <b>Disposal Facility</b>                             |
|-----------------------------------------|-----------------|-------------------|------------------------------------------------------|
| Non-Hazardous, Non-Regulated Debris     | 69 tons         | N/A               | Bayshore Recycling, Keasby, NJ                       |
| Lead, Non-Hazardous, Non-Regulated Soil | 150 tons        | N/A               | Cumberland County Solid Waste Complex, Millville, NJ |

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