

The Contaminated Legacy of Raritan Bay: An Environmental Sociology Case Study

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Introduction

The Raritan Bay in New Jersey has a long history of being on the receiving end of various environmental transgressions. This case study focused particularly on the **Raritan Bay Slag** Superfund site located in Laurence Harbor, New Jersey, a community off the southern coast of the Raritan Bay. In the 1960s, the Army Corps of Engineers constructed a jetty at the mouth of the Cheesequake Creek Inlet and added beach fill in Laurence Harbor in an effort to mitigate coastal erosion. The NJDEP granted land rights to Sea-Land Development Corporation in 1969 to construct a seawall and redevelop the existing jetty. In 2007, the NJDEP tested soil sediments in the area and found elevated lead levels, and, upon further investigation, discovered elevated lead levels at several nearby sites, which led to adding the area to the National Priorities List. The source of the lead was determined to be slag, a byproduct of lead smelting processes, used during construction coming from a lead smelting plant in Perth Amboy owned by NL Industries. [1][2]

Case Study Causes

Dominionism
The development of residential properties along the coast of the Raritan Bay created a demand for coastal erosion mitigation. The Bay is the home of a rich and diverse ecosystem that has slowly been dwindling as a result of nearby industrial and residential development, and the Raritan Bay Slag Superfund site is one of many examples of the consequences that come from our unhealthy relationship with the environment.

Risk Society and the Government
Once the site was added to the National Priorities List, the United States Environmental Protection Agency (EPA) initiated a \$79 million remediation and cleanup effort, of which NL Industries was charged. Despite the State government’s involvement in overseeing the construction and approving construction plans of the seawall and the jetty, the State was granted sovereign immunity and was not forced to pay for any of the remediation.

Comparison Cases

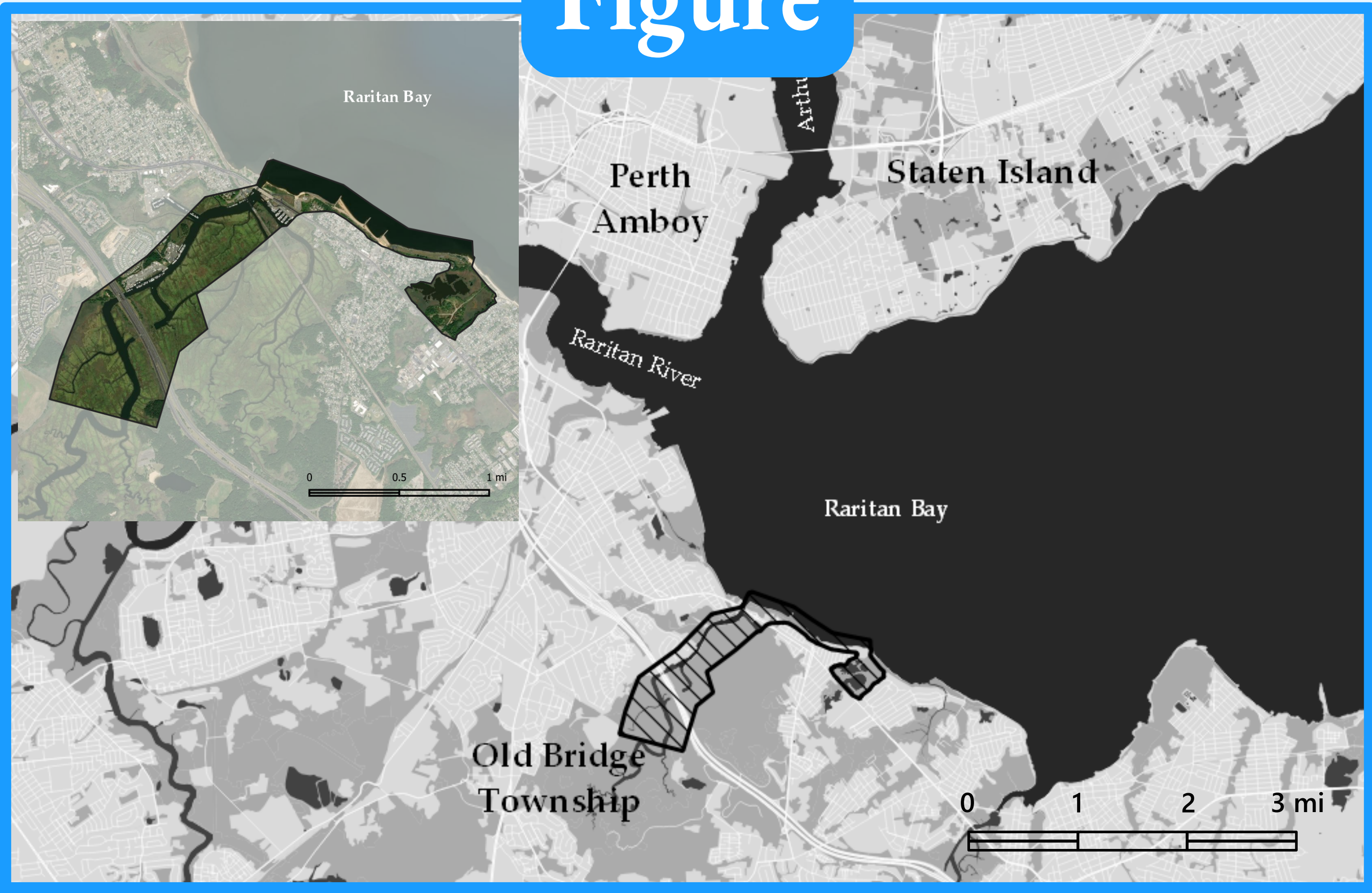
Fresh Kills Landfill: The Fresh Kills in Staten Island was the site of, at its peak, the world’s largest landfill during the mid to late 1900s. As a result of inadequate infrastructure, waste would occasionally leak and fall into the Fresh Kills and would travel through the Arthur Kill. During the late 1980s, hundreds of syringes, blood vials, and other medical wastes appeared in beaches at the Jersey Shore, in Long Island, and other surrounding areas. The source was determined to be the Fresh Kills Landfill. [7]

Asbestos in Libby, Montana: A vermiculite mining company in Libby, Montana had been exposing mine workers and local residents to asbestos for decades before investigative journalists brought national attention to the town that had been accruing hundreds of deaths as a consequence of asbestos poisoning. Families have been compensated as recently as 2017, while the W. R. Grace and Co, the company responsible, has filed for bankruptcy under the weight of the thousands of lawsuits it has received. [8]

Institutional Context

- Public Regulators [3][4]**
- Trustee Council
 - + National Oceanic and Atmospheric Administration (NOAA)
 - + NJDEP
 - + United States Fish and Wildlife Service (USFWS)
- Judiciary**
- Trustee Council
 - United States Department of Justice (DOJ)
- Corporate Entities/Non-governmental Organizations**
- NL Industries
 - Sea-Land Development Corporation
 - Raritan Bay Slag Community Advisory Group (CAG)

Figure



Proposed Solutions

- Further sampling and testing of the area, specifically testing of lead levels in the Raritan Bay, which has so far remained absent from the NOAA’s testing locations.
- Declaring the Raritan Bay as a protected area to make it a priority for federal funding for remediation and conservancy efforts.
- Increasing local community outreach, which has so far been limited to the Raritan Bay Slag Community Advisory Group, with involvement from only 2 of the 4 affected municipalities.
- Limiting state sovereign immunity to help hold the State government accountable for their involvement in the creation of several Superfund sites around New Jersey.

Human Population

Affected Communities: Laurence Harbor, Sayreville, South Amboy, Perth Amboy

Total Population: 108,685

Demographic Composition:

- 62% White
- 10% Black or African American
- 8% Asian,
- 1% Native American
- 43% Hispanic or Latinx
- 25% Below the age of 18

Case Study Effects

- Elevated lead levels were detected in hundreds of samples of surface water, and soil and sediment located at Cheesequake Creek, at Margaret’s Creek, and in the Old Bridge Waterfront Park and beach. [6]
- The Raritan Bay was under constant exposure to lead and other harmful chemicals for over 30 years. Shellfish and certain bird populations have declined over the past few decades.
- An unknown amount of people have been potentially exposed to lead and other harmful chemicals, especially at the Old Bridge Waterfront Park, which has been closed since the site was added to the National Priorities List.

References

[1] Lowenstein Sandler. New jersey supreme court finds broad immunity for the state in spill act suits.<https://www.lowenstein.com/news-insights/publications/client-alerts/new-jersey-supreme-court-finds-broad-immunity-for-the-state-in-spill-act-suits>.Date Accessed: 4-28-2021.

[2] Mike Deak. Nl industries lose court bid to have state help pay for superfund cleanup. my central jersey, 2017.

[3] Boornazian, R., Westerholm, D., & Weber, W. (n.d.). RBS MOA signed April 2015 - signature pages. National Oceanic and Atmospheric Administration.

[4] <https://www.facebook.com/Raritan-Bay-Slag-Community-Advisory-Group-100499536690309/>.

[5] United States Census Bureau, 2010 Decennial Census

[6] National Oceanic and Atmospheric Administration Data Integration Visualization Exploration and Reporting

[7] Lucy R. Lippard. New york comes clean: the controversial story of the fresh kills dumpsite. The Guardian, 2016.

[8] Daniel King. Libby. The Mesothelioma Center, 2021.

Figure is author's own work.