LCP Chemicals Superfund Site
Brunswick, Georgia

Image credit: NOAA.

How Did Contamination Happen?

The Turtle-Brunswick River Estuary is an environmentally important waterway impacted by industrial pollution.

From 1919 to 1994, the LCP Chemicals site in Brunswick, Georgia was occupied by a series of industrial operations that released polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), lead, and mercury into the environment.

In 1996, the site was designated as a Superfund site by the Environmental Protection Agency (EPA). In 1999, approximately 13 acres of the most heavily contaminated marsh areas were cleaned up. In 2016, a $28.6 million settlement was announced to further clean up the marsh.

Hazardous substances are still present at the LCP Site and cleanup (remediation) is ongoing. NOAA has and will continue to provide technical input to the EPA during the cleanup.

What Were the Impacts?

Hazardous substances have contaminated over 700 acres of salt marsh habitat at the LCP Chemicals site.

Natural resources, like fish, wildlife, and other species, have been exposed to the pollution and potentially injured as a result. This contamination may have adverse effects on growth, reproduction, and survival.

Elevated levels of mercury and PCBs prompted the State of Georgia to issue warnings for eating certain fish and shellfish (consumption advisories) from portions of the Turtle-Brunswick River Estuary because of risks to human health.

Other species in the area exposed to the pollution include bottlenose dolphins.

Studying Bottlenose Dolphins

Elevated levels of PCBs have been reported in bottlenose dolphins and their preferred fish prey species living in the Turtle-Brunswick River Estuary

Prior studies have demonstrated health impacts linked to PCB exposure such as issues with thyroid hormone levels (endocrine disruption) and possibly making them more vulnerable to infectious disease (changes to immune function.)

Research has also indicated that the populations of bottlenose dolphins in this area are smaller than comparable populations in similar habitats.

In July 2022, NOAA, along with the National Marine Mammal Foundation and other scientific and veterinary experts, conducted health evaluations of common bottlenose dolphins in estuarine waters near Brunswick, Georgia.

This work was part of the ongoing effort by NOAA and our co-trustees to assess potential injuries and develop restoration options for natural resources impacted by contamination from the LCP Chemicals site.

Image credit: NOAA.

The Environmental Protection Agency Cleans Up Contamination, NOAA Assesses and Restores

The U.S. Environmental Protection Agency (EPA) and other federal and state agencies work together, but have separate responsibilities under environmental law (CERCLA, or "Superfund").

The EPA is the lead agency, working with responsible parties, on the cleanup of the LCP Chemicals site. EPA's goal is to prevent further pollution and clean up sites to levels protective of human health and the environment.

The role of NOAA and our co-trustee agencies, with invited participation of responsible parties, is to assess and restore natural resources that may have been injured by pollution.

This process is known as a natural resource damage assessment (NRDA).

For Questions and Comments:

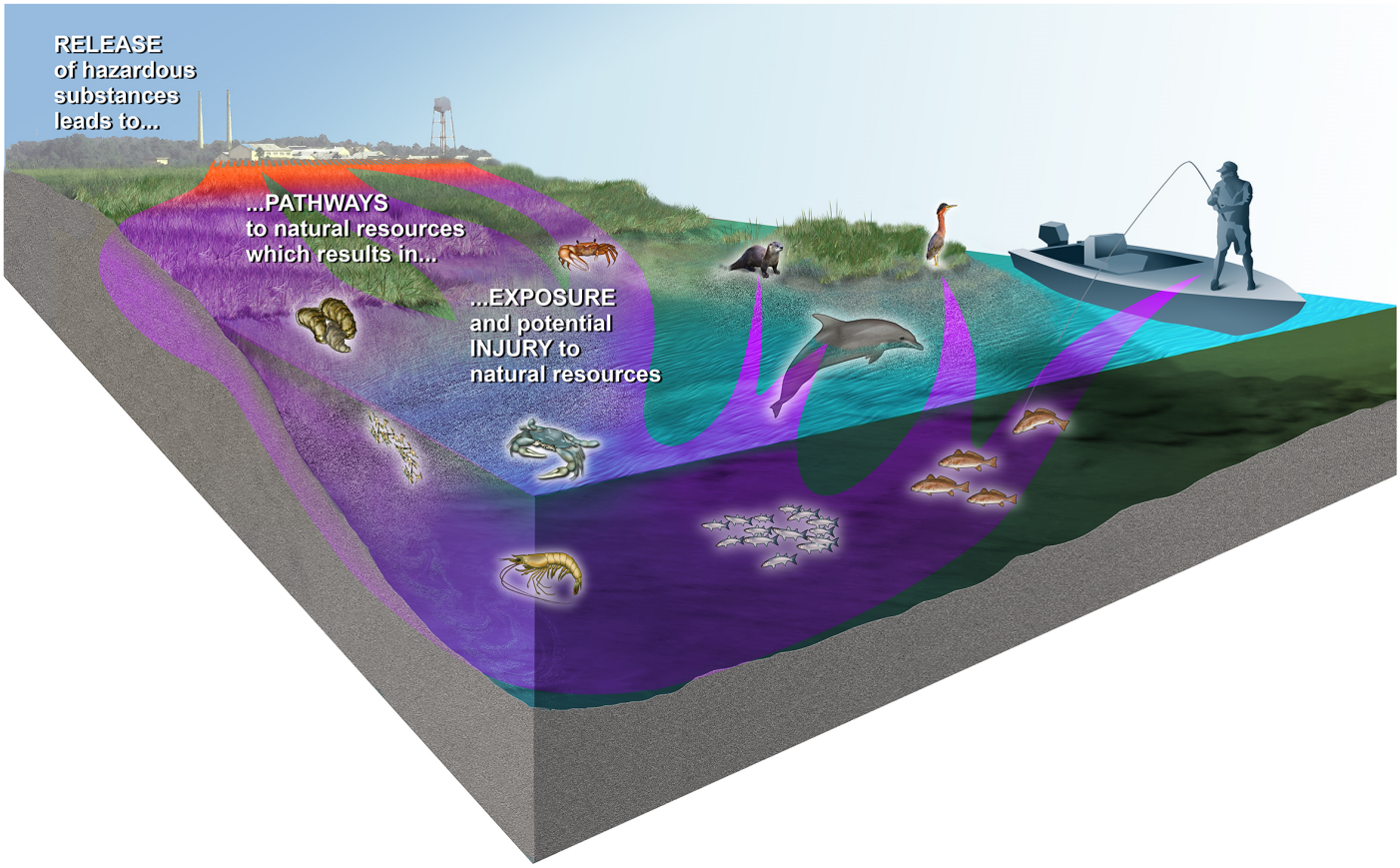
- **Email:** lcp.nrda@noaa.gov
- Visit: https://darrp.noaa.gov/hazardous-waste/lcp-chemical

What is Natural Resource Damage Assessment (NRDA) and How Does it Fund Restoration?

NRDA is a process to determine the type and amount of restoration needed to compensate for injuries to public natural resources from contamination. The NRDA process is driven by law, science, economics, and public input.

There are five basic steps to this process:

- **Screen for Injury:** Determine if impacts to resources have occurred and if a NRDA is appropriate.
- **Assess the Injury:** Quantify injuries to the environment, including lost recreational uses, by using existing data or conducting scientific and economic studies.
- **Plan for Restoration**: With public input, develop a restoration plan that identifies projects and best methods to restore injured natural resources.
- **Hold Polluters Accountable for Restoration:** Work cooperatively, when possible, with responsible parties to recover (through settlement or litigation) the costs of assessing injuries and implementing restoration.
- **Restore the Environment:** Implement projects to restore habitats and natural resources.



Graphic showing how the release of hazardous substances moves through the ecosystem and impacts natural resources and human uses at the LCP Chemicals Superfund site in Brunswick, Georgia (Credit: Kate Sweeney for NOAA).