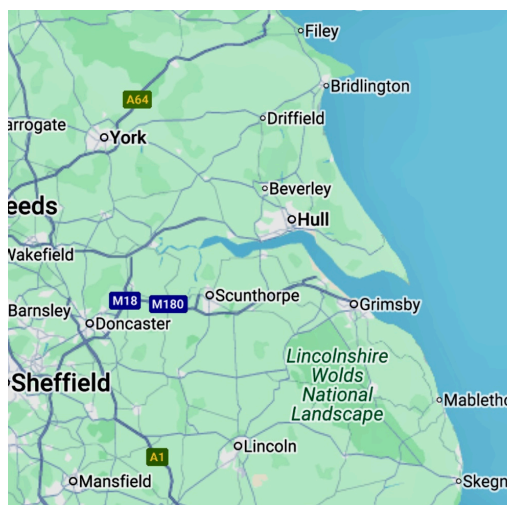


Humber Industrial Cluster



Map showing the Humber region

Overview

The Humber Industrial Cluster is located on the east coast of England, situated along the Humber Estuary. The cluster spans both banks of the estuary - East Yorkshire on the north bank and Lincolnshire on the south bank - which are connected by the Humber Bridge.

The region includes the UK's largest port complex; has 2 of 6 of the UK's oil refineries; has significant 'traditional' power generation capacity, energy from waste; and produces: lime, cement, steel, iron, glass and chemicals.

Key Environmental Capacity Challenges

Water quality

- Reduced summer rainfall and increased river temperatures, since 2010, have lowered river flows and groundwater recharge.
- This is putting pressure on the Humber environment.

Water availability

- No new water is available to abstract on South Humber bank.
- The industrial cluster will need an additional 181 million litres of water per day by 2050, posing a significant challenge given the existing water shortage.

Flood risk

- Rising temperatures and changing precipitation patterns increase the risk and severity of flooding in the Humber region.
- A significant portion of the Humber region is already prone to flooding.

Air quality

- The deployment of low-carbon technologies, may lead to increased emissions of residual pollutants and nitrogen compounds.
- There is currently limited data on the expected emissions from new technologies and their cumulative impact on air quality.

Recommendations

To effectively deploy low-carbon technology in the Humber region we need to prioritise innovation and collaboration among stakeholders.

Innovation

Reduce water use: Prioritise water efficiency in both the design and operation of low-carbon technology to ensure sustainable use of water resources.

Research: Encourage the Government to support research and development of water-efficient carbon capture and hydrogen production technologies, ensuring they meet future environmental standards and sustainability goals.

Technology adaptation: Promote the adaptation of existing technologies to enhance water efficiency, reuse and recycling, minimising water abstractions and reducing the impact on local ecosystems.

Collaboration

Early engagement: Foster early collaboration between Government, regulators, and industry to align environmental standards and strategies for deploying low-carbon technology.

Local forum: Establish local forums to facilitate discussions on environmental impacts and limitations, ensuring that stakeholders can share data, insights and best practices.

Joint planning: Encourage joint planning initiatives to anticipate and mitigate environmental risks, enhancing the resilience and sustainability of industrial clusters.