

East Anglia

East Anglia is **sediment cell 3** of the UK coastal system. Running geographically from **the Wash** to the **Thames** are eight towns of interest:

Blackney Point

- **4 mile spit**, curving due to a recent change in prevailing wind direction
- Made of **97% flint**
- The spit has cut off **Clay-next-the-sea** from the sea, causing the loss of their harbour and migration of fishermen families away.

Weybourne

- Suffers from rapid erosion, due to its cliffs. They're made from **unconsolidated sands** and its base consists of **chalk with flint nodules**.
- The permeable sand absorbs rainwater, making them unstable and causing

Sheringham

- Experiences waves of travelled **4100km** from the North Pole and **600km** from Denmark.
- Due to their **large fetch**, waves have high energy and so high eroding capacity.
- Sheringham has **bull nose sea walls** to reduce erosion and hold the coastline.

Happisburgh

- Cliffs consist of **glacial till**, which is permeable and so absorbs rainwater, causing it to **slump**. Its base is **clay**, which is vulnerable to **marine erosion**.
- Since wave fetch is long and Happisburgh beach is narrow, **output > input**.
- **Wooden revetments** (built 1959) became easily damaged due to frequent storms. They were going to be replaced by a **sea wall** in 1990s, but the value of land wasn't high enough for **DEFRA's Cost-Benefit Analysis**. Now, **rock armour** is used, but is ineffective in reducing erosion.

Sea Palling

- Installed **9 artificial reefs** (costing £350 million) and **2 million cubic metres** of **beach nourishment**.
- This has increased Sea Palling's beach, adding to its **tourist attraction**.
- Some would say it's a **sustainable** approach, since:

Economically – high initial cost, but minimal maintenance costs after.

Socially – Tourists and Locals happy for a long time, after beach created.

Environmentally – no damage caused to coast, maybe increased sea life at reefs.

Great Yarmouth

- **128m long sea wall** installed to stop the land receding and prevent flooding.
- **Wooden groynes** used to trap sediment and create a beach in front of wall. However, there is little sediment to trap.
- Costs **£7.6 million**. Area is seen as high value to DEFRA, hence expensive management used.

Lowestoff & Southwold

- Lowestoff & Southwold are being negatively impacted by the management schemes used by northern towns.
- Groynes, artificial reefs and sea walls are **reducing sediment available** further along the sediment cell. With little sediment in front the **cliffs are exposed** to more marine erosion.
- Known as **Terminal Groyne Syndrome**

