

1953

EAST COAST FLOODS

50th ANNIVERSARY

2003

BEAR UP
CANVEY
WILL
RISE
AGAIN

Essex

The battle to protect our
coastal communities



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January 31st 1953 - The Great Surge

On 31st January 1953 three elements were linked in a fateful combination. It was the night of a spring tide, a deep atmospheric low pressure over the North Sea had been raising water levels, and northerly gales were driving a wall of water down the coast. As it funnelled into the narrower areas of the North Sea between England and Holland, this wall of water grew higher. At its peak the surge was 2½ metres above the high spring tide level. This was more than the defences could stand and spelled disaster.

In all over 300 people died, 24,500 houses were damaged and over 30,000 people were evacuated. Outside the towns and villages, thousands of animals were drowned and great tracts of farmland were made infertile by the salt water. This was one of the worst peace-time disasters ever to strike Britain, comparable with some of the heaviest nights of the Blitz.

The surge hit Essex in the late evening and a total of 103 people lost their lives in the county due to the floods.



The Progressive Tide

Harwich

The water started to come over the quay at 10.30 pm, a full 2½ hours before the predicted high tide. The old town was flooded to a depth of 3.7 metres and a thousand people were made homeless. A total of 8 died in Harwich.

Jaywick

Many people had gone to bed. Most of the houses were holiday and retirement bungalows just inside the sea wall. The wall held, but water swept across a weak spot in the defences near St Osyth, where about 1000 caravans were swept away by a tidal wave. Miraculously nobody from the caravans died as they were virtually all vacant due to the time of year.

Many Jaywick residents were able to climb into their lofts, and after a terrifying night, were saved by rescuers in boats who broke through their roofs. 37 people drowned, many of them elderly.

Canvey Island

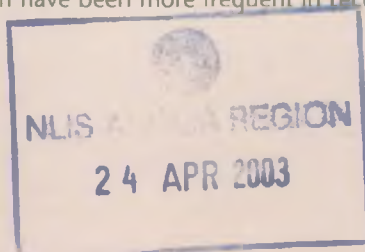
All of Canvey island lies in the tidal flood plain. The population of over 11,000 had just one bridge linking them to the mainland. Once again most of the houses were bungalows. Shortly after midnight the defences were overwhelmed, and very rapidly the island was underwater. By the following morning every single house had been evacuated, and the Great Surge had claimed 58 lives.



The Never-Ending Challenge

Containing the massive destructive power of the sea is an expensive and never-ending business. The situation is constantly changing, so there will never be a time when we can relax and declare the job complete. Why is this?

- The sea erodes sea walls and banks.
- The sea also shifts millions of tonnes of sand and gravel along the coast, altering the shoreline and often reducing the protection given by beaches and dunes.
- Britain is tilting, with the East Coast slowly sinking into the North Sea at a rate of 150 mm a century.
- Global Warming may increase the sea level by a further 650mm, making a total of 800 mm in a hundred years.
- Severe gales, which can drive a surge of water before them have been more frequent in recent times.



Will 1953 Happen Again?

The real question is '**When** will this happen again?' Surges of about 1m sweep the coast three or four times a year, but they rarely coincide with high tides and bad weather as they did in 1953. We work to ensure people are fully aware of the risk of flooding, are prepared for it, and receive warnings of flood events. In this way, when nature does deliver this combination of conditions, there is less risk of people losing their lives to the sea.

Flood Management Methods

There are many methods of flood protection, but there is no one answer, no 'quick fix' and certainly no cheap solution. Some methods include:

- Sea walls
- Flood banks
- Beach recharge
- Groynes and other structures to hold beaches in place
- Tidal barriers, which can cost millions of pounds.

These are traditional, well-tried solutions, but as we become increasingly threatened by sea level rise we see a need to work with nature, rather than against it. Thanks to an improvement in understanding of natural coastal processes and the much more detailed information we have about defences and the coast, we can help predict

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how man-made structures and beach management will affect natural processes. This helps us plan long-term, sustainable solutions which are cost-effective and reduce impact on the environment.

Managed realignment is also an important way of providing flood defence. Here we consider the most sustainable first line of defence, and if that is further inland, we can create valuable habitats like saltmarsh and mudflats. These in turn play a role in providing natural flood defences, as they break down wave energy and reduce attack at the base of sea walls.

Through a hierarchy of plans such as Shoreline Management Plans and Coastal and Estuary Strategies, natural processes, environmental and economic impacts are considered. At each stage a public consultation aims to ensure the views of those affected by coastal management are included. If flood defence schemes are considered necessary, these are then developed and implemented, often in partnership with other organisations.

Major Improvements Since 1953

Canvey Island Sea Defences

Following the devastating loss of life as a result of the 1953 floods, the sea walls were repaired, raised and strengthened. Between 1974 and 1983 major improvements were made to all the Thameside Tidal defences from the Thames Barrier in London, downstream to Canvey and beyond. The total cost of the works to the Canvey Island sea defences was approximately £40 million.

Flood Warning

The Agency operates a flood warning system. Flood defence staff constantly monitor weather conditions and tidal and river levels to determine where floods may occur, the severity of the flood and the extent of areas that may be affected. Information is collated using data from the Meteorological Office weather radar stations, the Storm Tide Forecasting Service and other sources. The Agency issues the following warnings to the Emergency Services, local authorities and the public:



Flooding Possible.

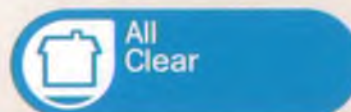
Be aware! Be prepared! Watch out!



Flooding expected, affecting many homes, businesses and main roads. Act now!



Severe flooding expected. Imminent danger to life and property. Act now!



All clear. There are no Flood Watches or Warnings in force. Water levels receding. Check all is safe to return. Seek advice.

24 hour information available through

Floodline
0845 988 1188
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Flood warnings are posted on the internet and are updated every 15 minutes, log onto

www.environment-agency.gov.uk/flood

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