Hunstanton Coastal Defences Works Update June 2026

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Coastal Trends Overview

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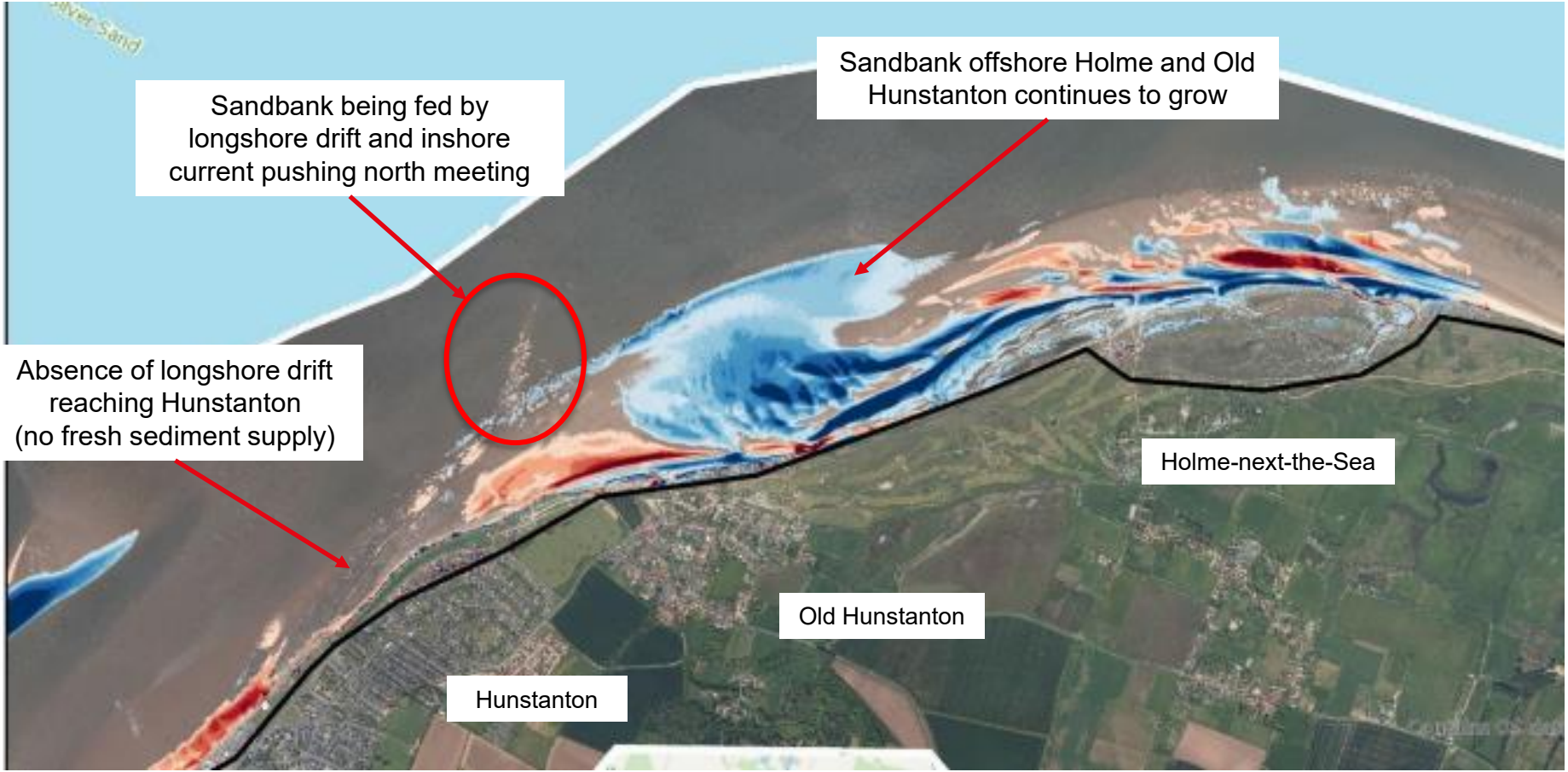
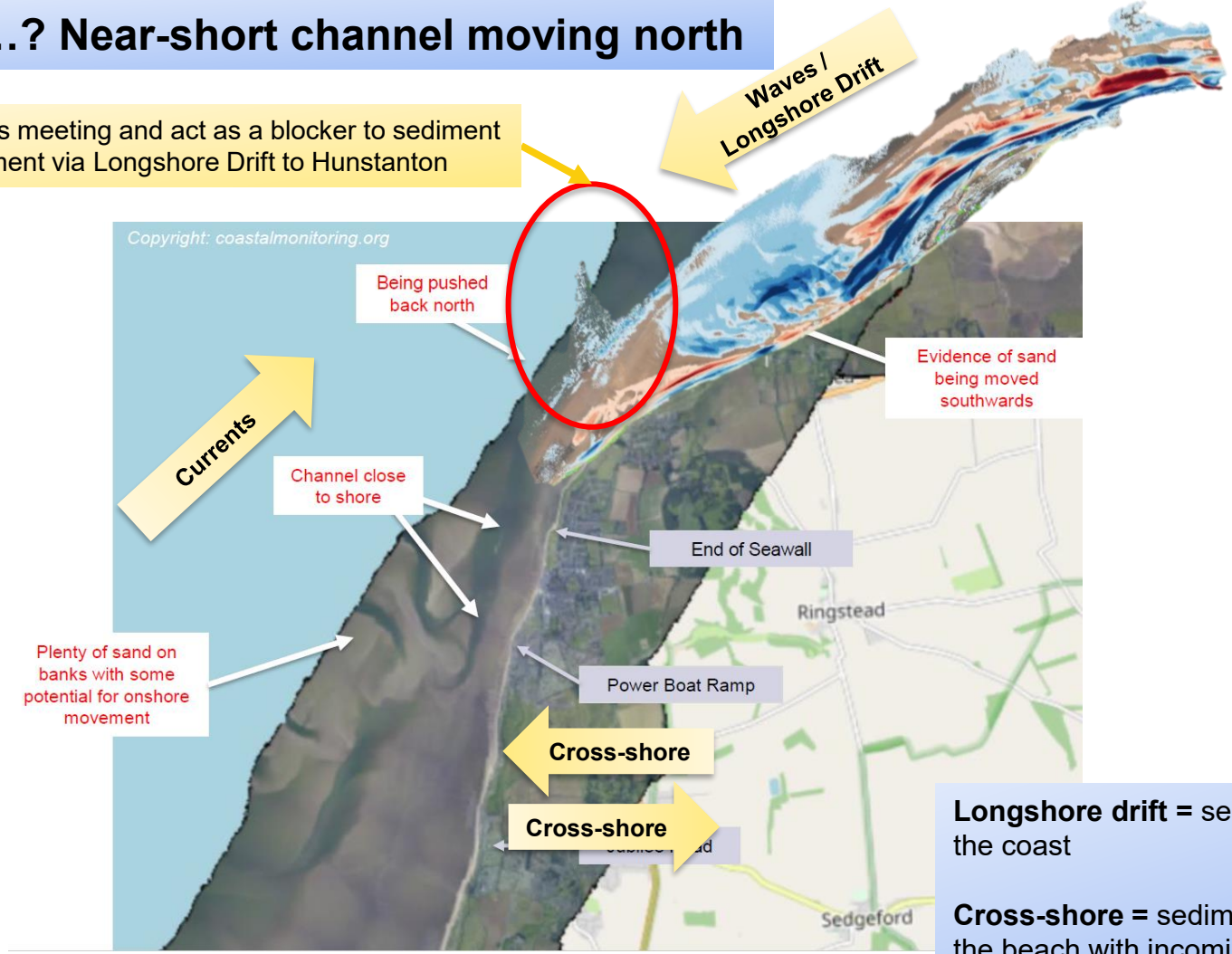
Aerial LiDAR Data over approx last 20 yrs



Cause…? Near-short channel moving north

2 processes meeting and act as a blocker to sediment movement via Longshore Drift to Hunstanton



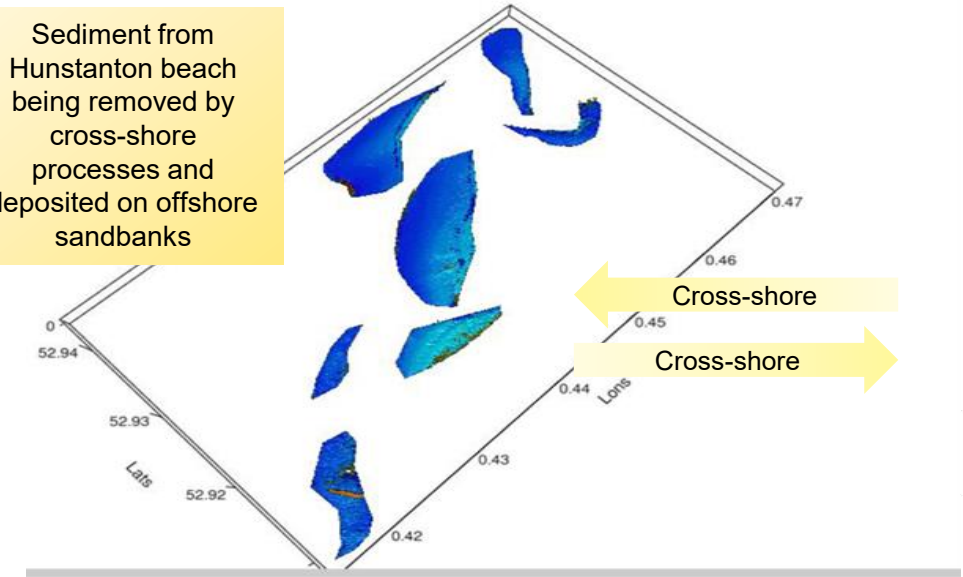
Longshore drift = sediment moved parallel to the coast

Cross-shore = sediment moved up and down the beach with incoming and outgoing tides

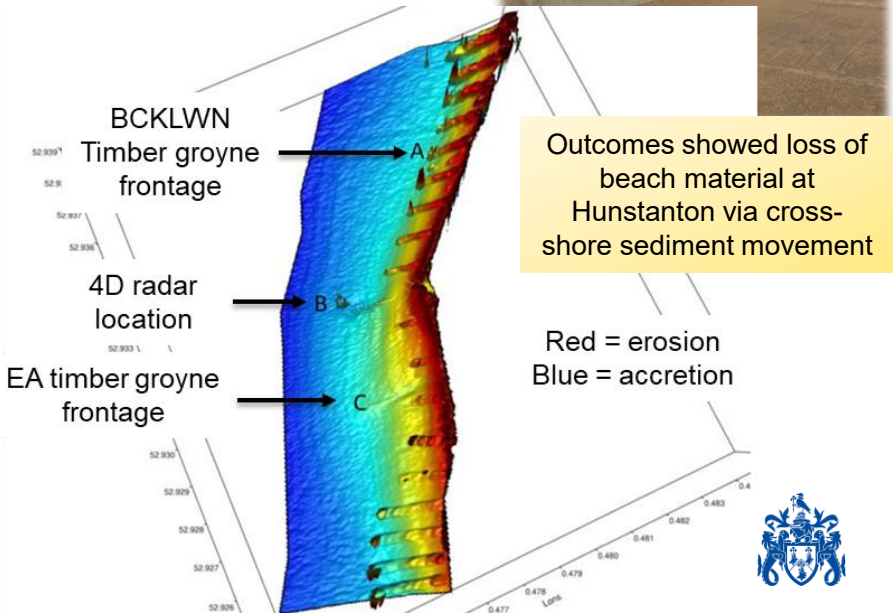
4D Radar Deployment

- Penetrates water to map the seabed and its features (e.g. sandbanks)
- Deployed between August and September 2021
- Outcomes supported outcomes of Wash Trends Report & Jacobs Groyne Effectiveness Reports – showing erosion of the beach and growth of sandbanks offshore from Hunstanton

Sediment from Hunstanton beach being removed by cross-shore processes and deposited on offshore sandbanks

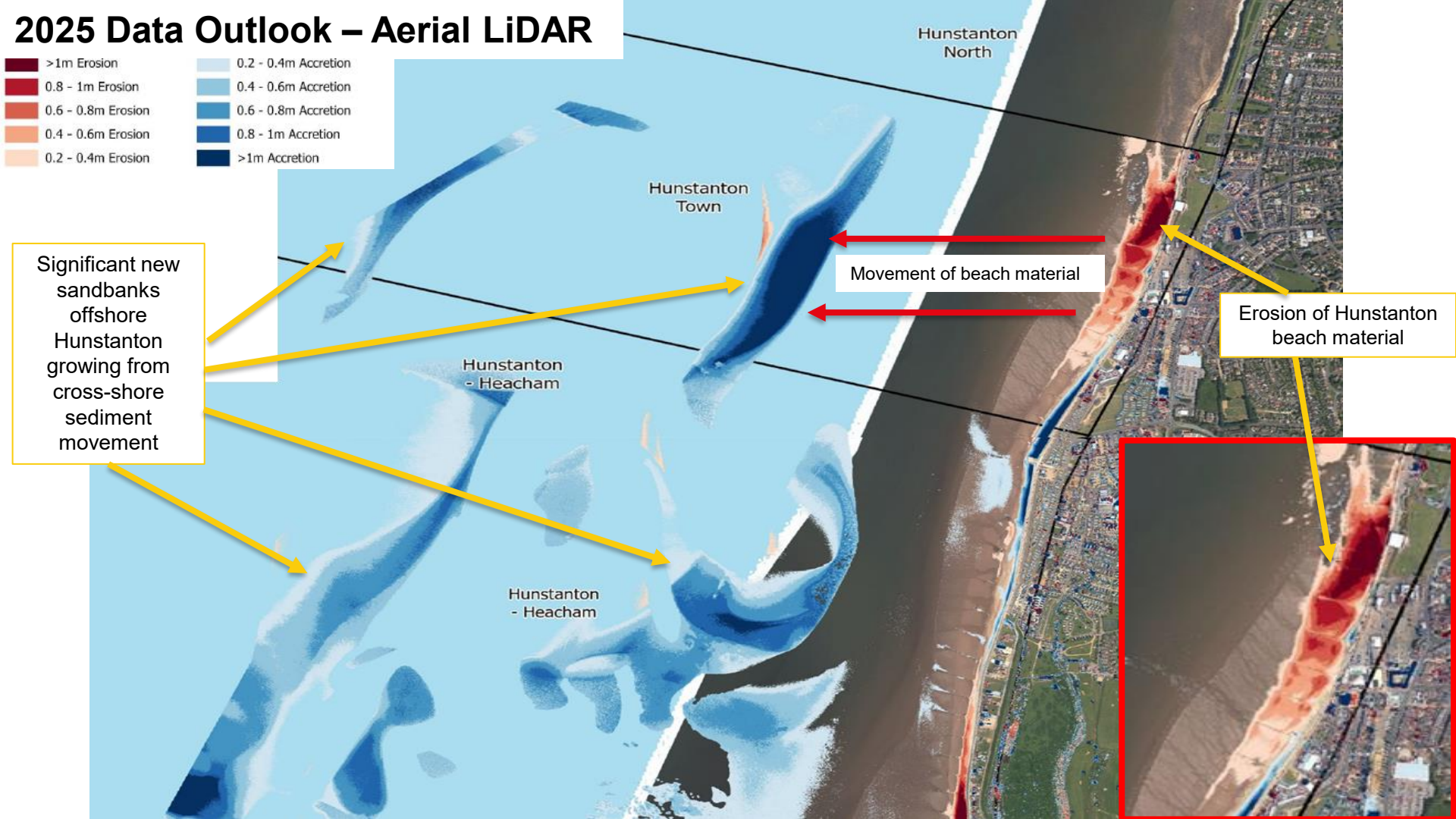


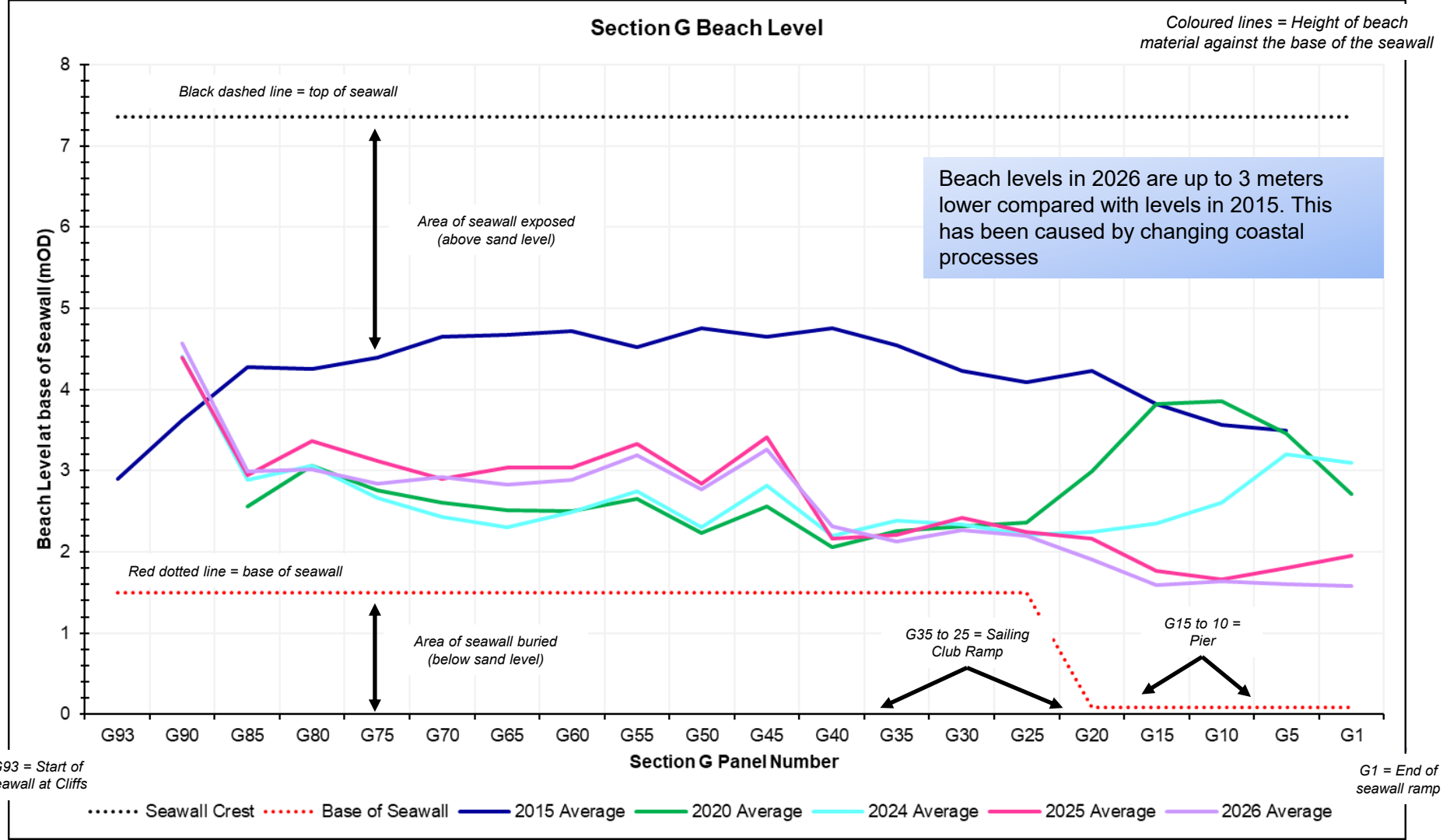
Sandbanks offshore from Hunstanton



Outcomes showed loss of beach material at Hunstanton via cross-shore sediment movement

2025 Data Outlook – Aerial LiDAR

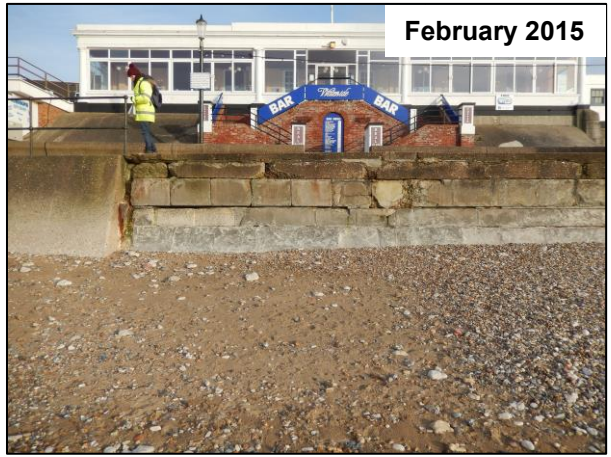



Section G Beach Level
Coloured lines = Height of beach material against the base of the seawall
Black dashed line = top of seawall
Area of seawall exposed (above sand level)
Beach levels in 2026 are up to 3 meters lower compared with levels in 2015. This has been caused by changing coastal processes
Red dotted line = base of seawall
Area of seawall buried (below sand level)
G35 to 25 = Sailing Club Ramp
G15 to 10 = Pier
Beach Level at base of Seawall (mOD)
0
1
2
3
4
5
6
7
8
G93
G90
G85
G80
G75
G70
G65
G60
G55
G50
G45
G40
G35
G30
G25
G20
G15
G10
G5
G1
Section G Panel Number
G93 = Start of seawall at Cliffs
G1 = End of seawall ramp
Seawall Crest
Base of Seawall
2015 Average
2020 Average
2024 Average
2025 Average
2026 Average

Section G (2015 vs 2026)

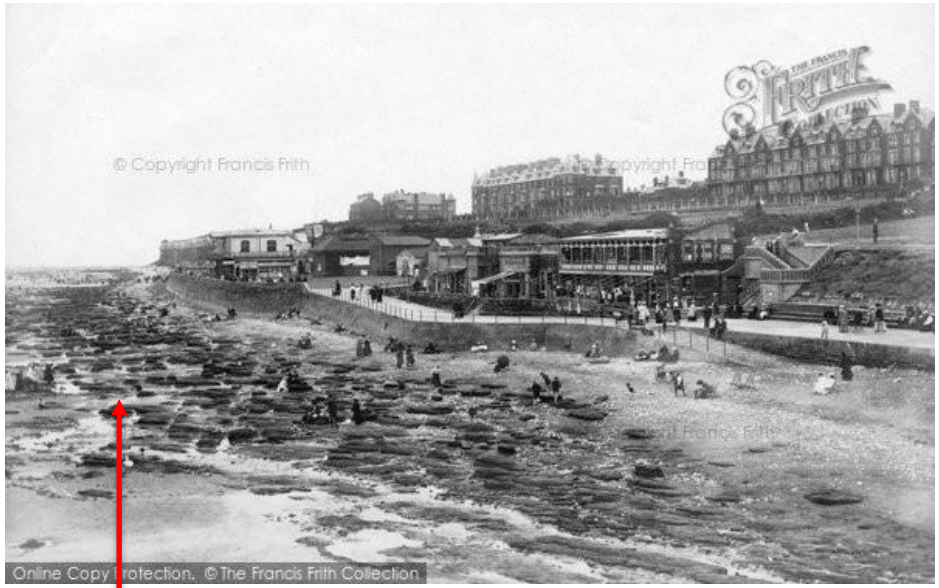
Section F (2015 vs 2026)

Section E (2015 vs 2026)



Hunstanton in 1893 & 1907 – Similar beach conditions to today

Hunstanton in 1893



Hunstanton in 1907

Widespread Carstone exposure and limited beach cover is evident

Beach conditions between 1893-1907 look very similar to today

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Summary

- Coastal processes acting at Hunstanton have changed over the past 10-years
- Hunstanton no longer receives a fresh supply of beach material via longshore drift. Groynes are designed to capture sediment moved by longshore drift, and cannot prevent loss of beach material by cross shore sediment movement which is the main process now acting at Hunstanton
- Replacement or repair of the current groynes at Hunstanton will not improve beach levels
- The changes in coastal processes which have occurred are caused by natural changes in coastal process, outside of our control

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https://www.west-norfolk.gov.uk/info/385/coastal/988/coastal_trend_reports

Hunstanton Coastal Defence Capital Works

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Geotechnical Investigation

- Excavation of 25 trial pits along the base of the seawall to expose the conditions seawall foundations which are normally buried beneath beach material.
- A ground penetrating radar survey to assess the internal condition of the promenade deck
- A falling weight deflectometer to test the material strength of the concrete promenade deck
- On site investigations were completed in Autumn 2024, and a final report of outcomes received in July 2025


Trial pit excavation


Ground penetrating radar

Falling weight deflectometer

Geotechnical Investigations – Outcomes

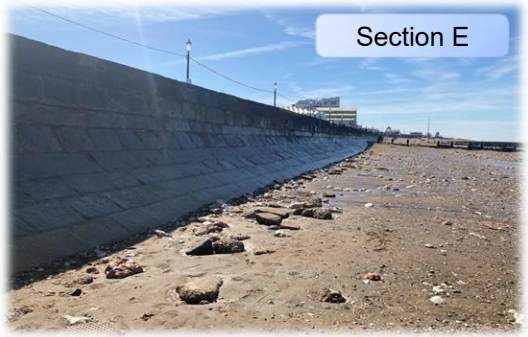
Final report received on the 31st July 2025.

Outcomes: -

- The concrete promenade deck has poor structural condition and voids beneath it and requires replacement
- Seawall Section E is at risk of undermining if beach levels lower further and requires toe protection (sheet pile) installation and a seawall reface to mitigate future risk of undermining failure.
- Seawall Sections F and G are at risk of structural failure if beach levels lower further and require toe protection (sheet pile) installation and a seawall reface to mitigate future risk of structural failure.

We now need to move away from a 'patch and mend' approach to a capital works rebuild of aspects of the coastal defences. This is to ensure they continue to provide their intended standard of protection.

https://www.west-norfolk.gov.uk/HunstantonProm



Concurrent Work Streams

The Capital Works Project is one of several work streams taking place at the same time along the Hunstanton coastal defence frontage including: -

- Routine repair works
- Monitoring and surveying of beach levels and coastal defence asset condition
- Capital works project
- Interim / emergency works (as required)
- Wash East Coastal Management Strategy (WECMS) Review
- Tie in with Hunstanton Masterplan

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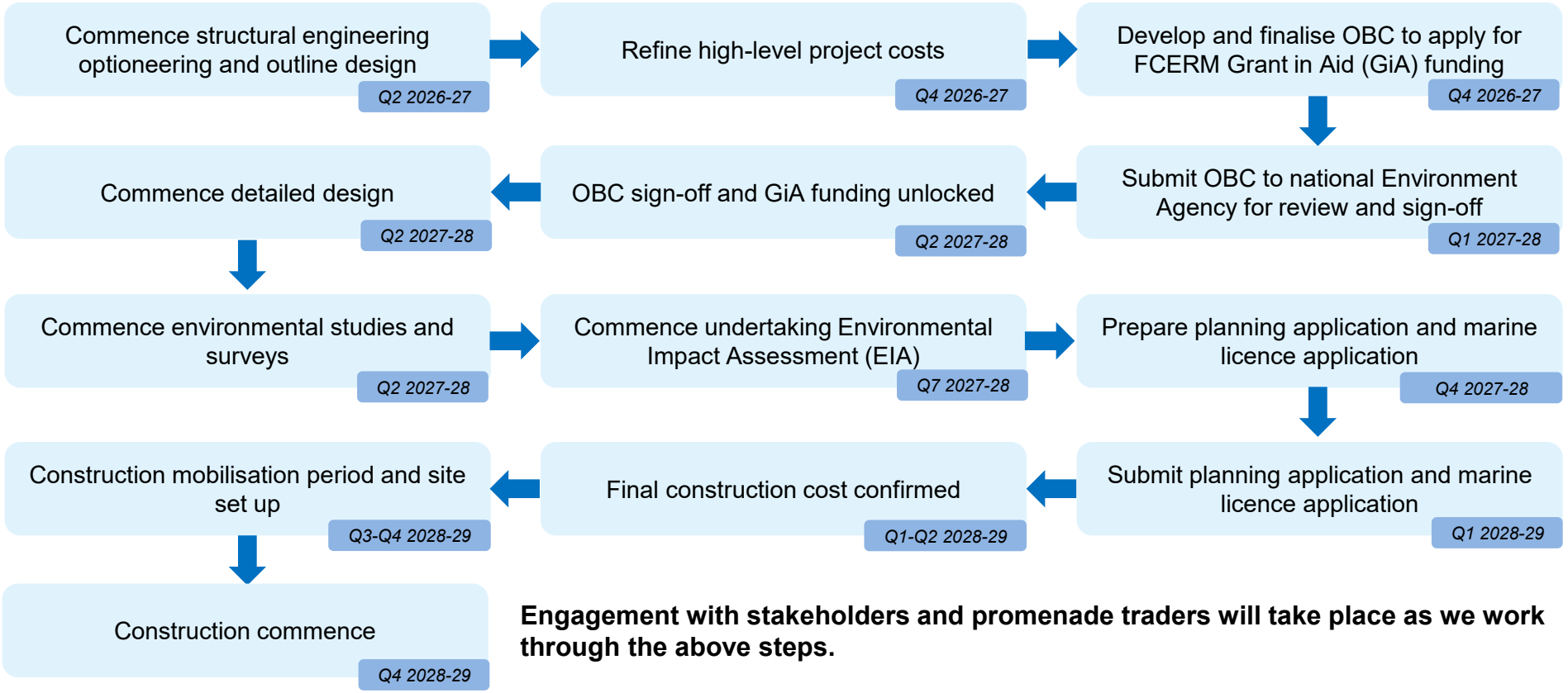
Ongoing Monitoring

- Ground Penetrating Radar (GPR) Surveys
- Digital Laser Surveys (structural stability monitoring)
- Window (Core) Sampling
- Ground water monitoring
- Beach Level Monitoring
- Routine visual asset condition checks

Project Planning – Next Steps & Timeline

The project planning phase is anticipated to take 12-18 months to complete and will include the following high level steps: -



Engagement with stakeholders and promenade traders will take place as we work through the above steps.

Works Since September 2025

- Following outputs of Geotechnical Investigations and their recommendations in summer 2025, a capital works project to rebuild aspects of the Coastal Defences has commenced
- Since the start of this project in September 2025, works completed include: -

  - Balfour Beatty completed a high-level feasibility assessment
  - Entered contract with Balfour Beatty & commenced undertaking initial works
  - Submitted an application for RFCC Local Levy funding to support preliminary works
  - Started economic assessments to support funding business case
  - Procured and undertaken structural stability monitoring (Dec-25 & Mar-26)
  - Undertaken a repeat GPR survey of promenade between Sailing Club and Oasis
  - Window (core) sampling investigation started
  - Continued beach level monitoring and visual asset condition surveys

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Works going forwards (next 6-months)

- Over the next 6-months we will continue working on developing the capital works project.
- Key activities planned include: -

  - Receive outcomes of window (core) sampling investigations
  - Continue 3-monthly structural stability monitoring
  - Undertake repeat GPR survey of all 1.5km of promenade
  - Enter contract with Balfour Beatty and Jacobs for the next phase of works
  - Complete economic assessments to support an OBC
  - Confirm new funding rule changes from April 2026
  - Begin design optioneering, outline design and OBC development
  - Stakeholder engagement

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