Hunstanton Capital Sea Defence Works Briefing

Thursday 7th August 2025

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King's Lynn &
West Norfolk

Background

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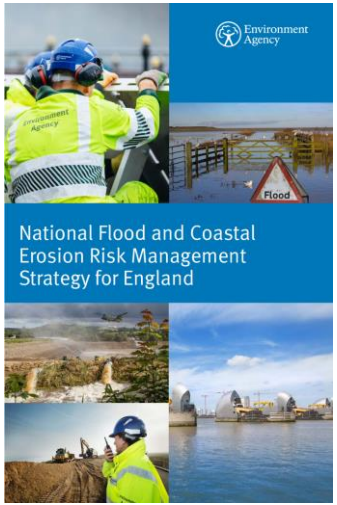
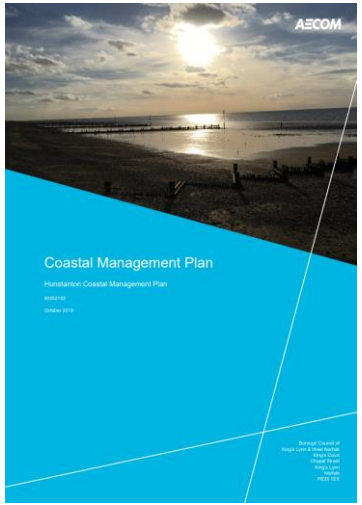
Policy, Strategy and Plan Context

Coast Protection Act 1949

Flood and Water Management Act 2010





Government Acts → **National Strategy** → **Regional Plan (SMP)** → **Local Strategy (WECMS)** → **Local Implementation Plan (HCMP)**

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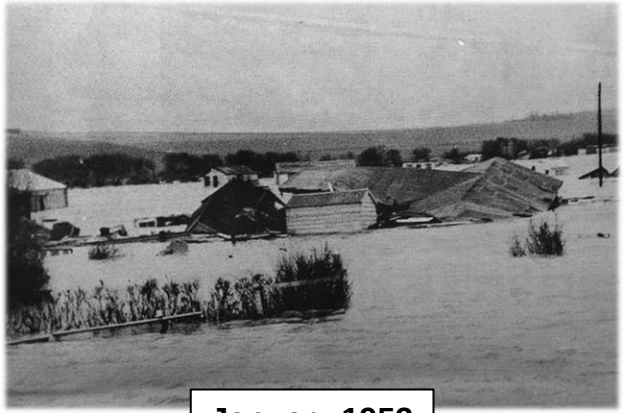
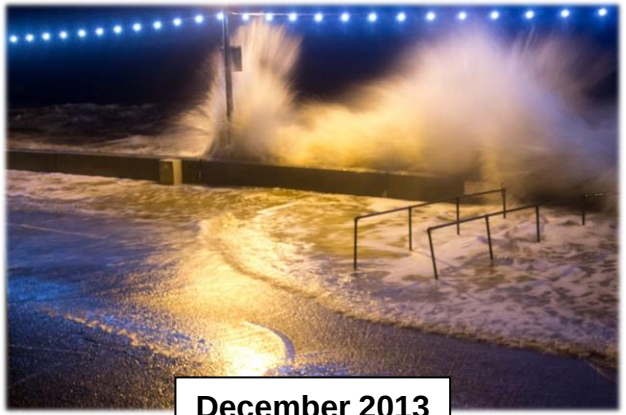
Why do we manage the West Norfolk coast?

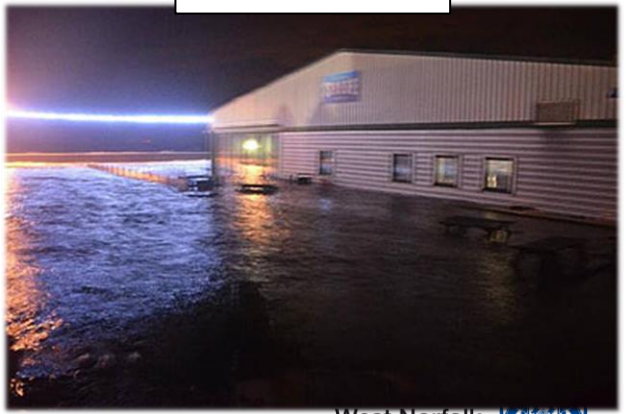


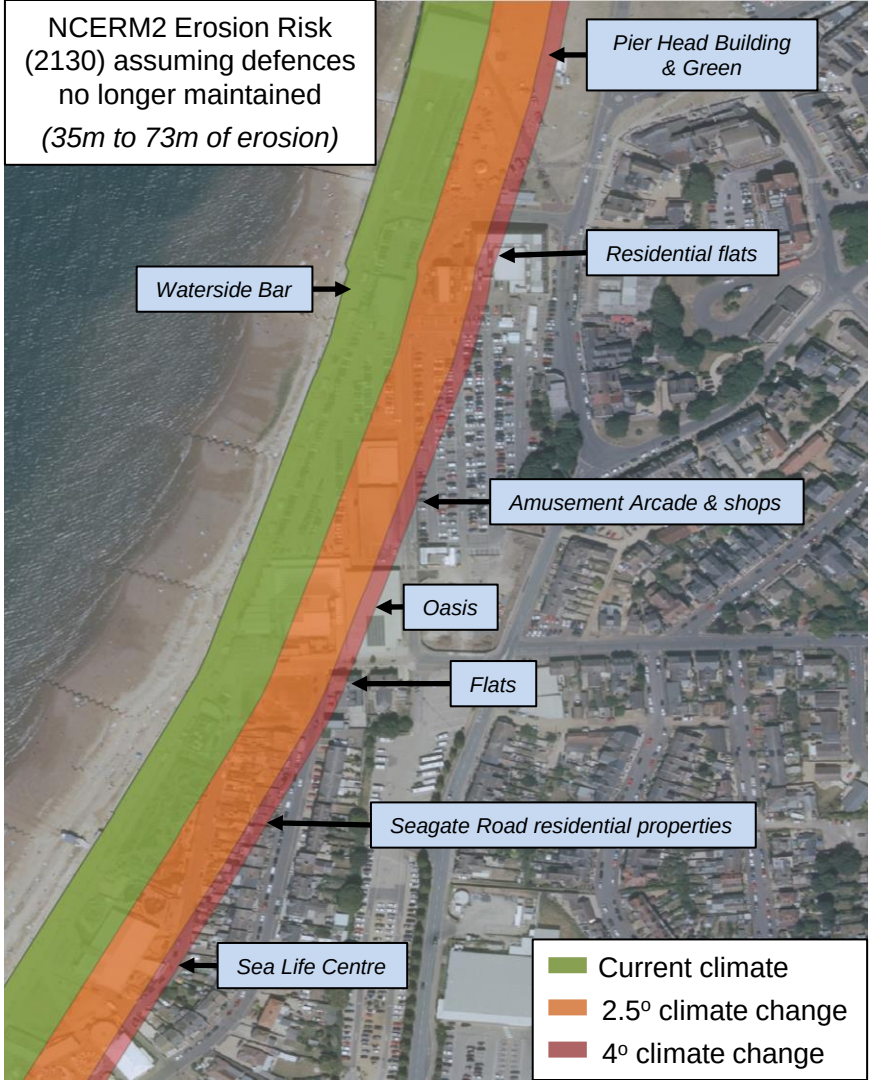
January 1953

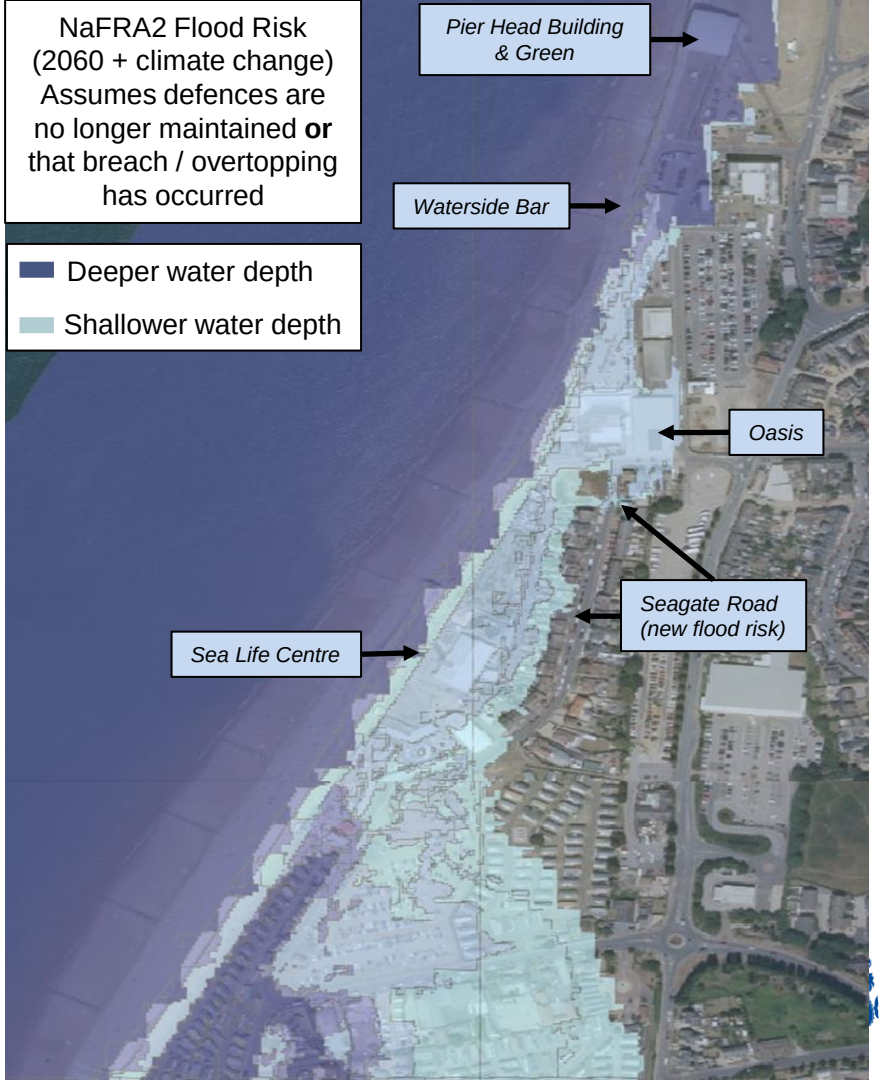
January 1978



December 2013

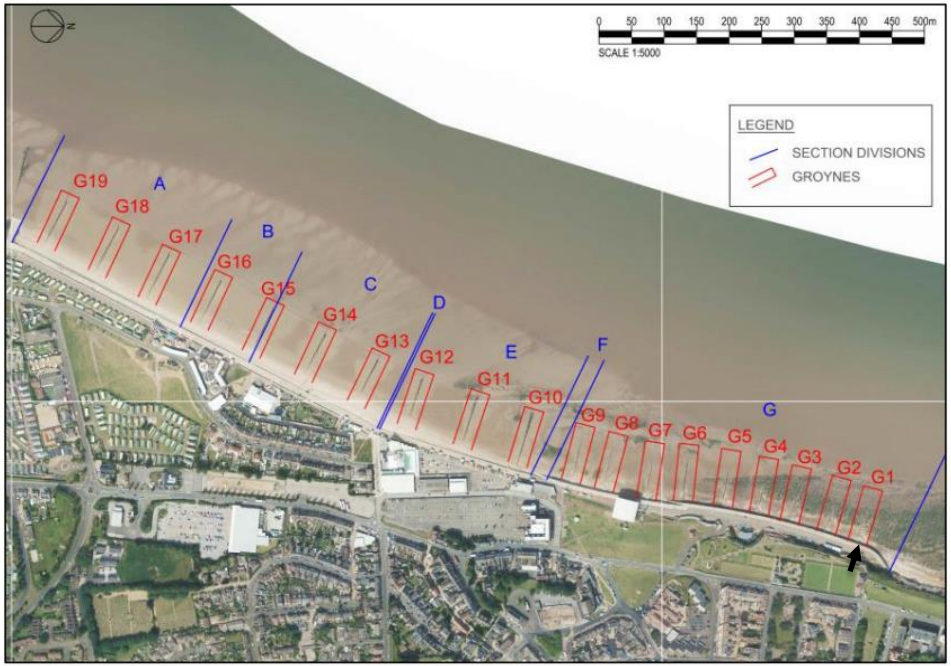



NCERM2 Erosion Risk (2130) assuming defences no longer maintained
(35m to 73m of erosion)
Pier Head Building & Green
Residential flats
Waterside Bar
Amusement Arcade & shops
Oasis
Flats
Seagate Road residential properties
Sea Life Centre
Current climate
2.5º climate change
4º climate change

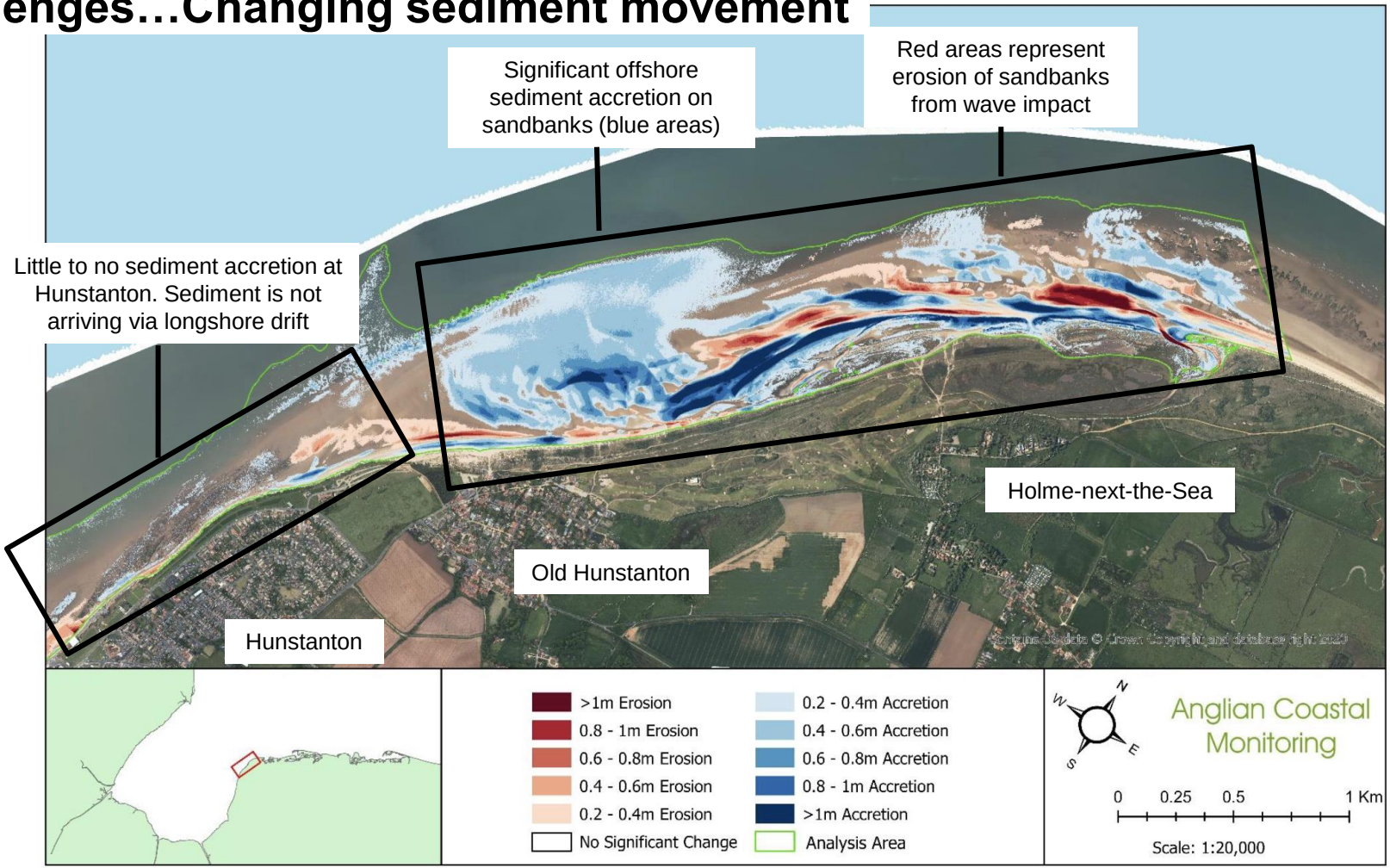

NaFRA2 Flood Risk (2060 + climate change) Assumes defences are no longer maintained **or** that breach / overtopping has occurred
Deeper water depth
Shallower water depth
Pier Head Building & Green
Waterside Bar
Oasis
Seagate Road (new flood risk)
Sea Life Centre

Hunstanton Town

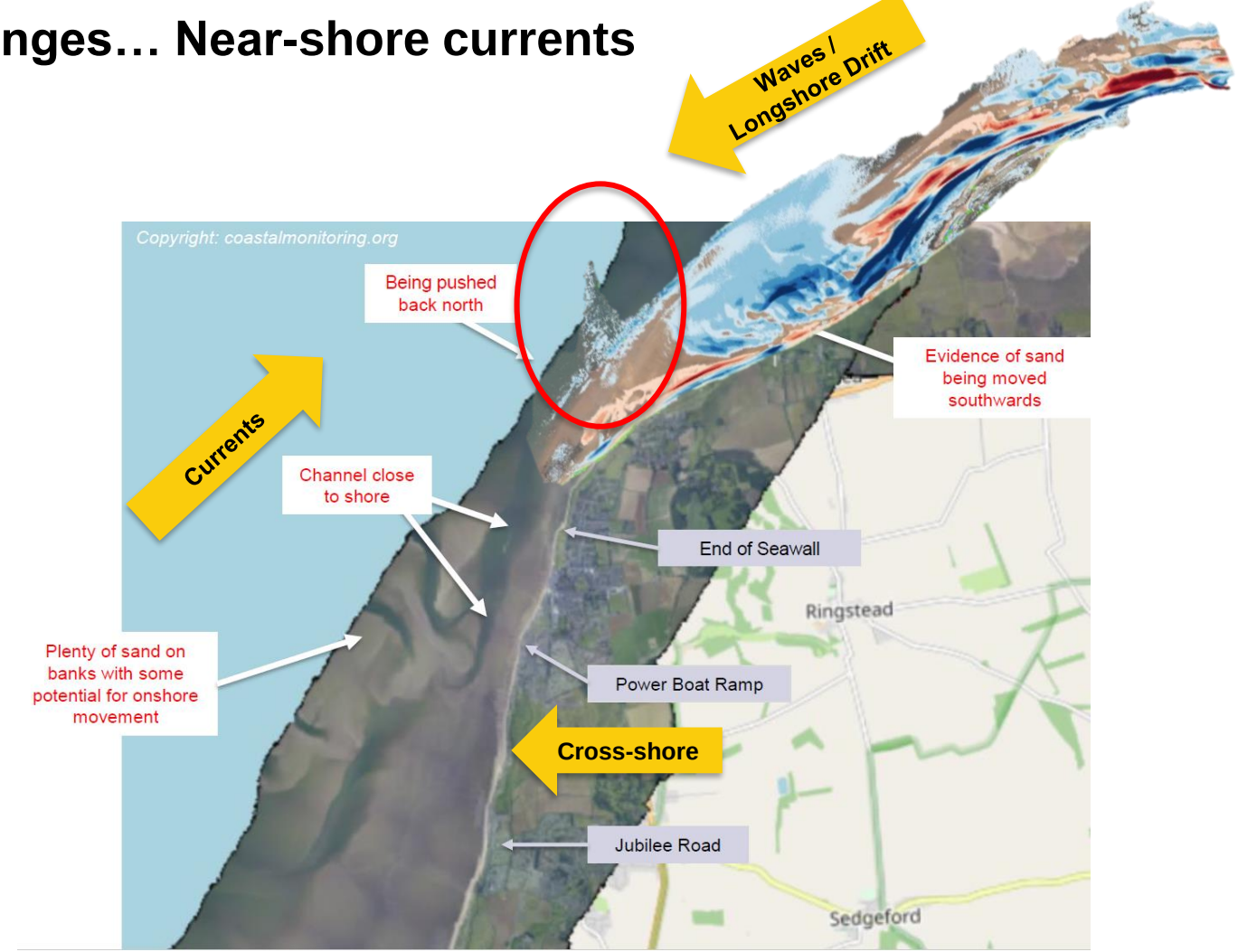
- ‘Hold the Line’ of defences policy for the next 100-years
- Actively managed by a 1.5km of traditional ‘hard engineered’ coastal defences
- Challenges…Changing coastal processes resulting in erosion of beach material



Challenges…Changing sediment movement



Challenges… Near-shore currents



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2024 Data – Aerial LiDAR Data

Section G (2016 vs 2025)

December 2016

January 2025

Section F (2016 vs 2025)

September 2016

March 2025

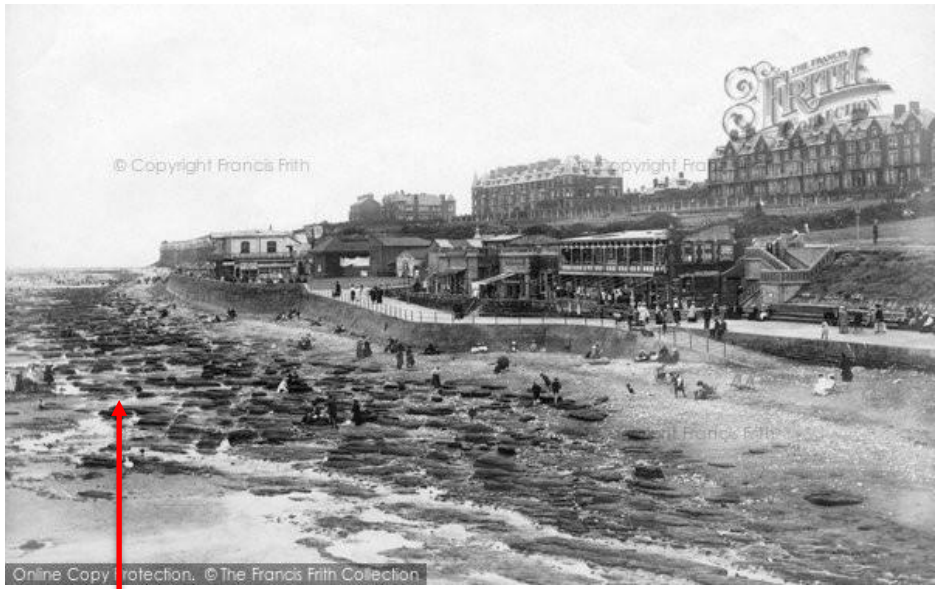
Section E (2016 vs 2025)

February 2016

March 2025

Hunstanton in 1893 & 1907 – Similar beach conditions to today

Hunstanton in 1893



Hunstanton in 1907

Widespread Carstone exposure and limited beach cover is evident

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Previous works

Pre-2018 Works include:

- SMP (2010)
- WECMS (2015)
- Geotechnical Investigations (2012 & 2015)
- Routine Works (annual)
- Visual Asset Inspections
- Floodgate installation

HCMP (2018)

Outlined management approach for Hunstanton over the next 100-years & adopted by the Borough Council in 2019

Routine Repairs (2018-19 & 2019-20)

Coastal Trends Report (2020)

Confirmed coastal processes had changed, resulting in erosion of beach levels at Hunstanton

Routine Repairs (2020-21 & 2021-22)

Groyne Assessment (Dec 2021) & 4D Radar (Feb 2022)

Confirmed change in coastal processes and concluded groynes were no longer effective

Routine Repairs (2022-23)

AECOM Asset Inspection Survey (completed May 2023)

Inspection completed and outcomes recommended undertaking 'geotechnical investigations' to confirm asset condition and future works

Routine Repairs (Spring 2023)

Geotechnical Investigations project commences (Summer 2023)

Approval of budget and specification writing

Routine Repairs (Autumn 2023)

T98 Asset Inspection (Summer 2023)

BCKLWN officers undertook annual visual asset inspection survey

Geotechnical Investigations Procurement (Dec 2023 - Mar 2024)

Procurement via tender of contractor to undertake works

T98 Asset Inspection (Mar 2024)

BCKLWN officers undertook annual visual asset inspection survey

Routine Repairs (Spring 2024)

Geotechnical Investigations project planning & approvals (Mar - Sept 2024)

Project planning & gaining approvals (MMO Licence) required to undertake works

Concrete Groyne Works (Winter 2024-25)

Geotechnical Investigations undertaken (Oct - Nov 2024)

On site investigations undertaken

Routine Repairs (Summer 2025)

T98 Asset Inspection (Spring 2025)

BCKLWN officers undertook annual visual asset inspection survey

Geotechnical Investigations Outcomes (July 2025)

Final report of outcomes received 31st July 2025

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Outcomes of Geotechnical Investigations

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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

Section A (Boat Ramp / Caravan Park)

Wave-return wall – No current works required

Promenade deck
– Poor concrete condition and voids
– Window sampling required within next 12 months
– Potential replacement of prom deck required (up to 68 panels)

Stepped seawall
– No refacing works required
– No toe protection works or sheet piling required

Monitoring
– Regular monitoring of beach levels
– Structural stability monitoring every 5-years

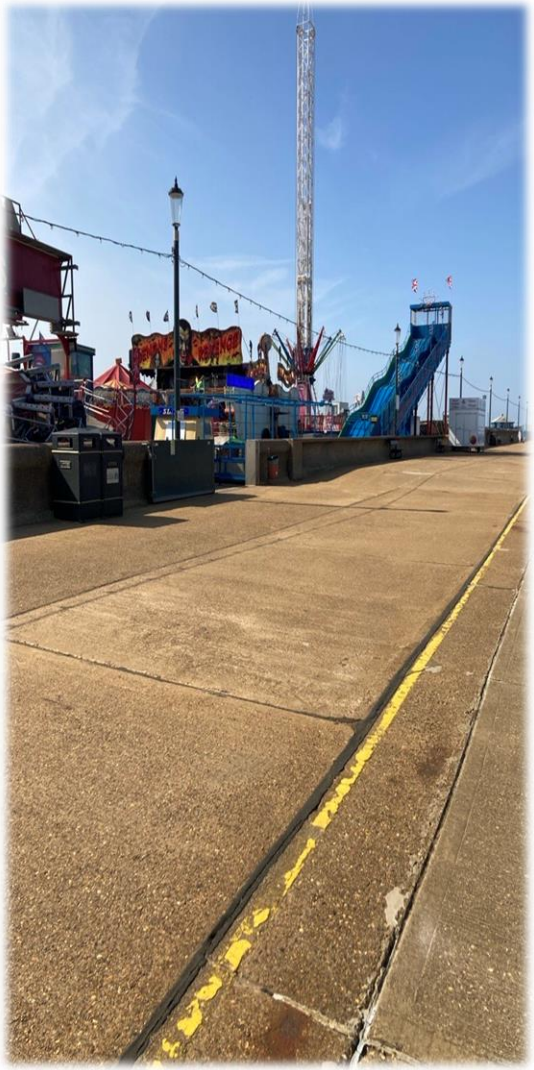
Section B (Fairground)

Wave-return wall – No current works required

Promenade deck
– Poor concrete condition and voids
– Window sampling required within next 12 months
– Potential replacement of prom deck required (up to 20 panels)

Seawall
– No refacing works required
– No toe protection works or sheet piling required

Monitoring
– Regular monitoring of beach levels
– Structural stability monitoring every 5-years



Section C (Sealife Centre)

Wave-return wall – No current works required

Promenade deck
– Poor concrete condition and voids
– Window sampling required within next 12 months
– Potential replacement of prom deck required (up to 46 panels)

Seawall
– No refacing works required
– No toe protection works or sheet piling required

Monitoring
– Regular monitoring of beach levels
– Structural stability monitoring every 5-years

Section D (Kit Kat Ramp)

Wave-return wall – Review rear wave wall condition

Promenade deck
– Poor concrete condition and voids
– Window sampling required within next 12 months
– Potential replacement of prom deck required (1 panel)

Seawall
– Potential refacing works required
– No toe protection works or sheet piling required

Monitoring
– Regular monitoring of beach levels
– Structural stability monitoring every 5-years

Section E (blockwork wall / Oasis)

Wave-return wall – No current works required

Promenade deck
– Poor concrete condition and voids.
– Window sampling required within next 12 months.
– Potential replacement of prom deck required (up to 46 panels).

Seawall
– At risk of undermining if beach levels lower further.
– Installation of toe protection (sheet piling) alongside a seawall reface required to mitigate risk of future seawall undermining.

Monitoring
– Regular monitoring of beach levels
– Structural stability monitoring every 6 months

Section F (rock shop ramp)

Wave-return wall – No current works required

Promenade deck
– Poor concrete condition and voids
– Window sampling required within next 12 months
– Potential replacement of prom deck required (1 panel + ramp)

Seawall – Installation of toe protection and deeper sheet piles alongside a seawall reface required to mitigate risk of future structural failure occurring due to lower beach levels.

Monitoring
– Regular monitoring of beach levels
– Structural stability monitoring every 6 months

Section G (north prom)

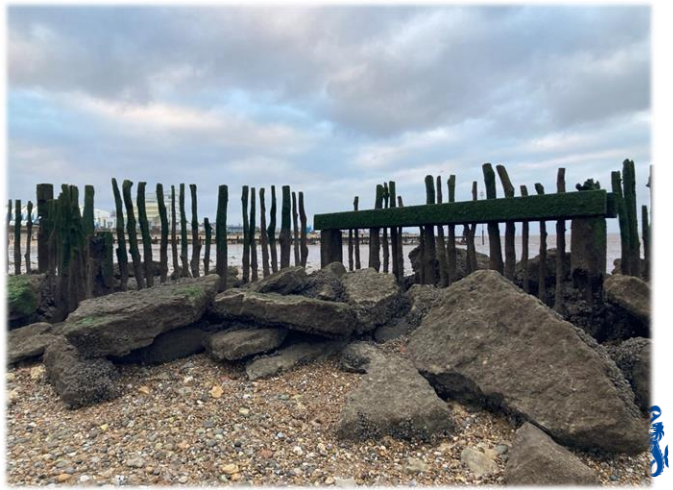
Promenade deck
– Poor concrete condition and voids
– Window sampling required within next 12 months
– Potential replacement of prom deck required (up to 156 panels)

Seawall
– Installation of toe protection and new / deeper sheet piles alongside a seawall reface required to mitigate risk of future structural failure occurring due to lower beach levels

Monitoring
– Regular monitoring of beach levels
– Structural stability monitoring every 6 months

Groynes

- Follow current health and safety repairs and removal over time.
- No additional works required.
- Some groyne removal works may be required as part of seawall refacing / sheet pile installation works.
- Groyne works will be completed as part of annual budget.



Next Steps

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Next Steps 1/3

- Comms
  - Briefing to local stakeholders
  - Set up new webpage
  - Circulate letter and FAQs to prom businesses
  - Media briefing
  - Further updates to WECMS Stakeholder Forum (Sept)

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Next Steps 2/3

- Implement a 10 tonne weight limit and 5 mph speed limit on the promenade to mitigate against further deterioration of the promenade until capital replacement is undertaken
- Sign up to SCAPE Framework (Balfour Beatty)
- Complete window sampling
- Complete 6 monthly digital level surveys of defence Sections E, F and G
- Continue regular beach level monitoring

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Next Steps 3/3

- Start feasibility study and structural design for works (SCAPE / Balfour Beatty)
- Start pre application work for flood defence GiA funding application
- Await structural design then consider whether planning permission is required
- Following structural design completion, submit a defence GiA funding bid
- Start application for Marine Management Organisation marine licence

Indicative Project Timeline → **Project Planning Phase = 12/18 months (tbc)**
Build = 24 months + (tbc)

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