Coastal Trends Reports

Borough Council of
King's Lynn &
West Norfolk

Wash Trends Report (2021)

Unit B - Hunstanton

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Wash Trends Report (2021)

- Reviewed coastal trend data between 1992-2020.
- Hunstanton experiencing long-term erosion due to its exposure to strong waves and cross-shore sediment movement.

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Wash Trends Report (2021)

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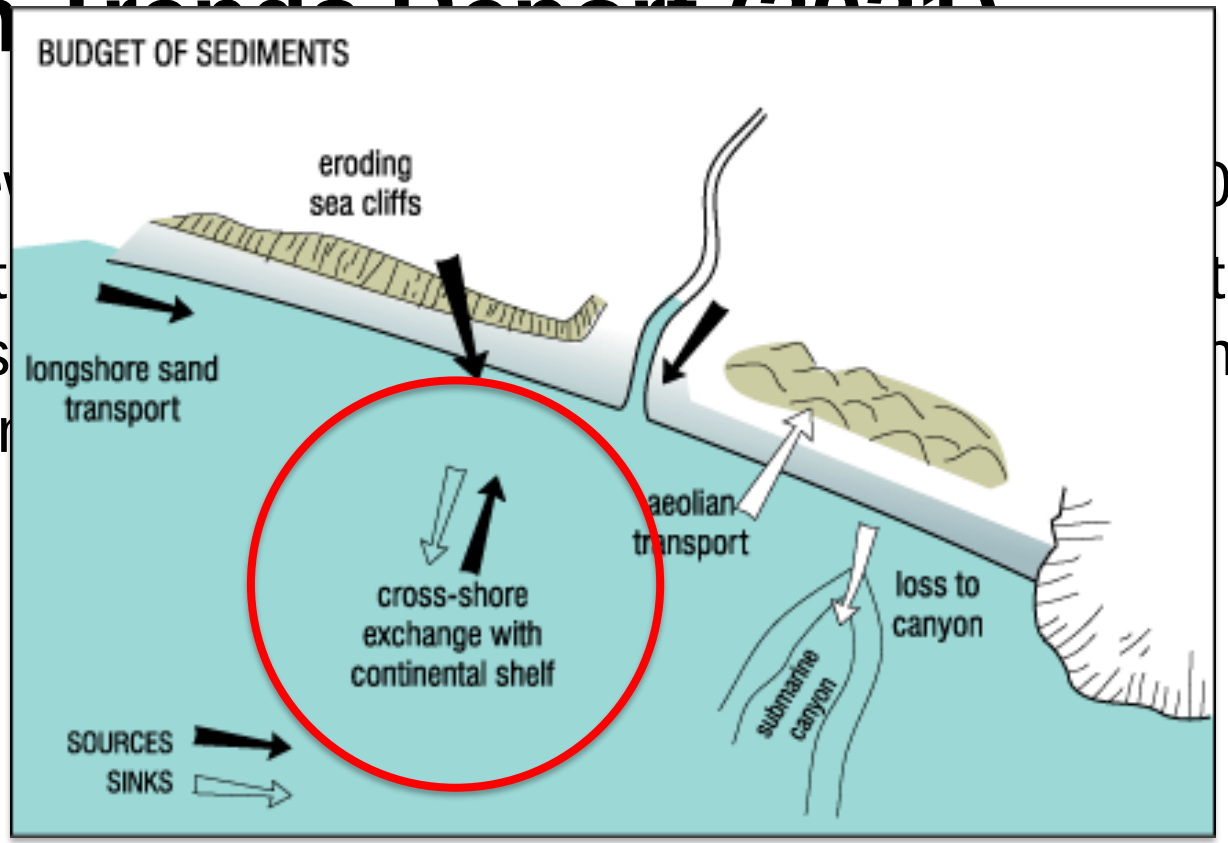
- Hunst to its expos ment mover



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Wash Trends Report (2021)

- Reviewed coastal trend data between 1992-2020.
- Hunstanton experiencing long-term erosion due to its exposure to strong waves and cross-shore sediment movement.
- Beach levels in Hunstanton are falling while offshore sandbanks are growing.
- Input of beach material to Hunstanton from erosion of Hunstanton cliffs is limited and will not build beach levels.

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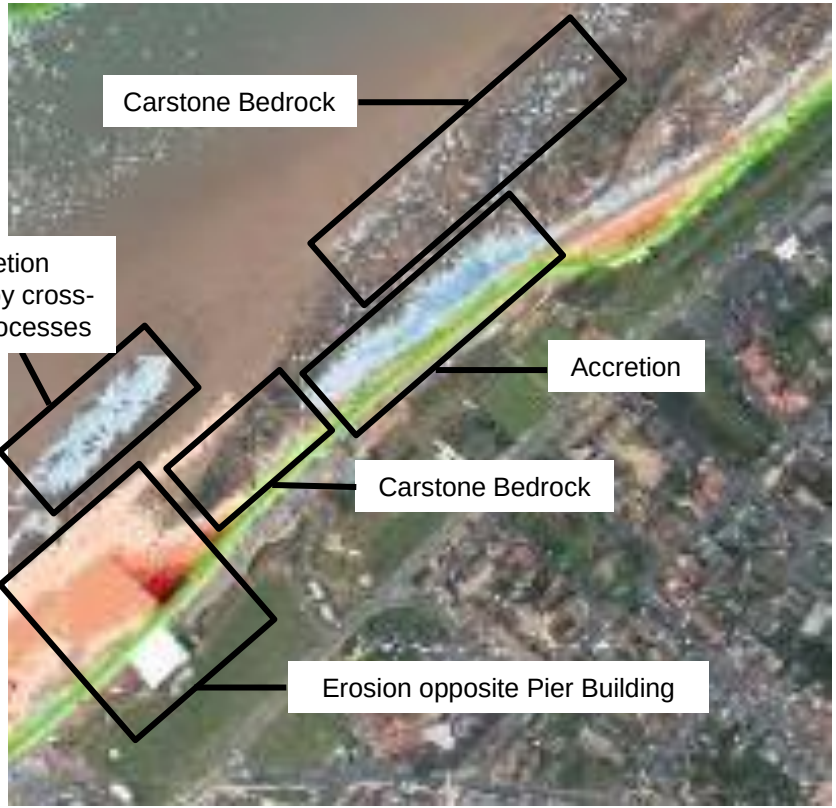
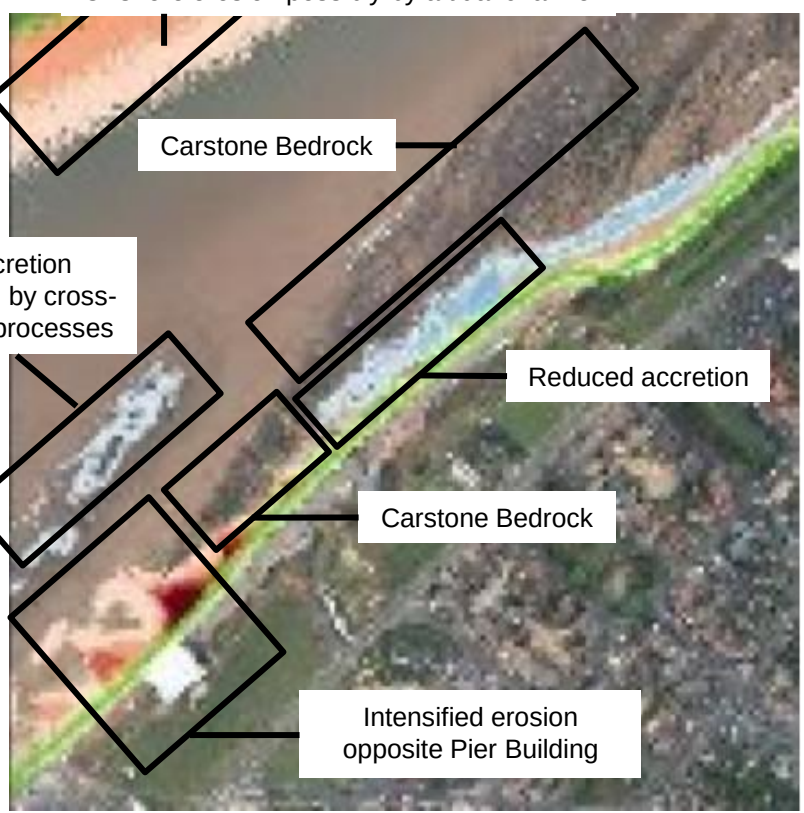


Aerial LiDAR 2012/13 to 2019/20

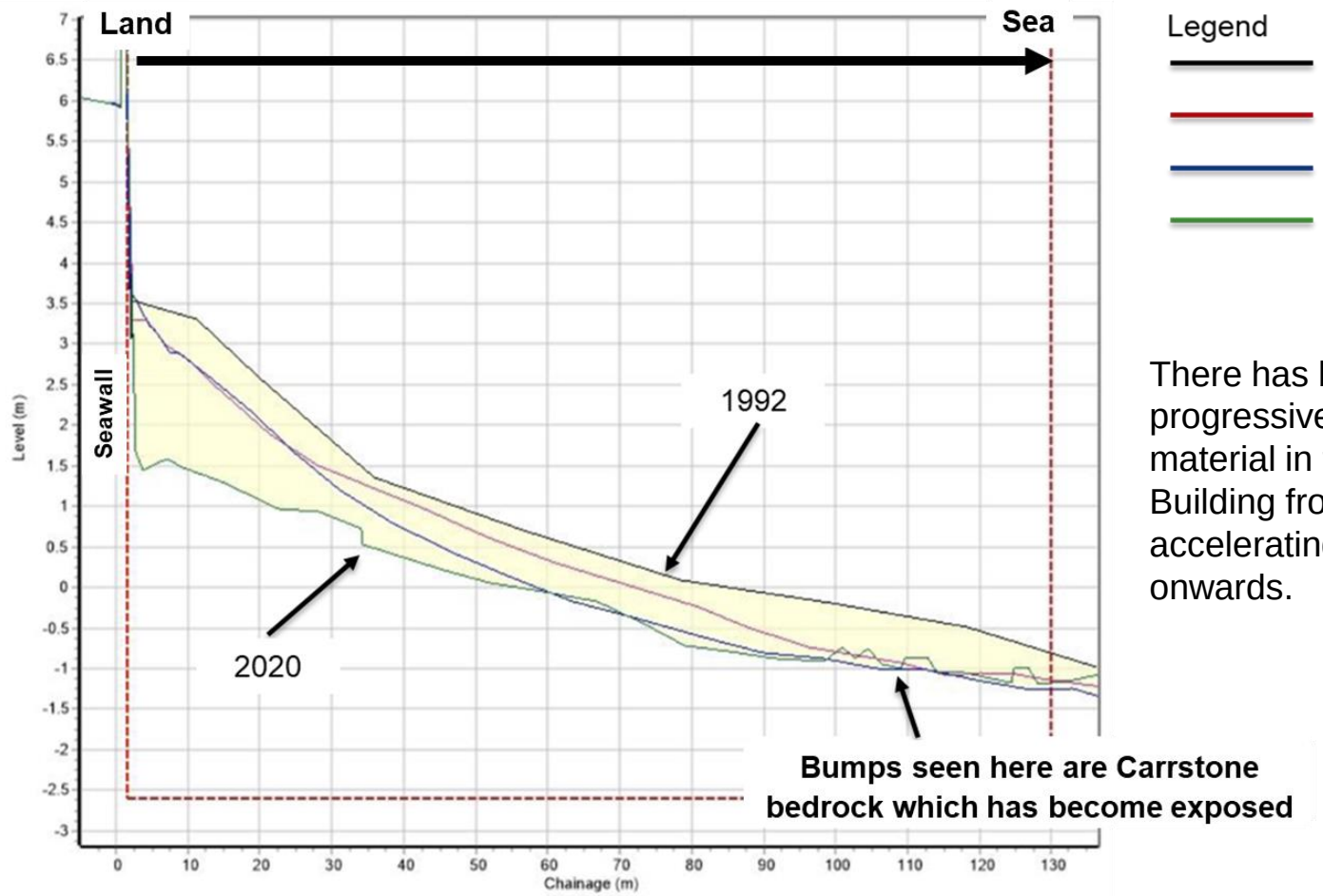


Aerial LiDAR 2016/17 – 2019/20

Legend

- 0.2 - 0.4m Accretion
- 0.4 - 0.6m Accretion
- 0.6 - 0.8m Accretion
- 0.8 - 1m Accretion
- >1m Accretion
- >1m Erosion
- 0.8 - 1m Erosion
- 0.6 - 0.8m Erosion
- 0.4 - 0.6m Erosion
- 0.2 - 0.4m Erosion

Area of beach opposite pier building experiencing greatest amount of erosion, resulting in widespread Carrstone exposure, meaning there is little to no beach material left to be eroded.



There has been a progressive loss of beach material in front of the Pier Building from 1992-2020, accelerating from 2016 onwards.

Beach profile opposite Pier Building from 1992 (black line) to 2020 (green line)

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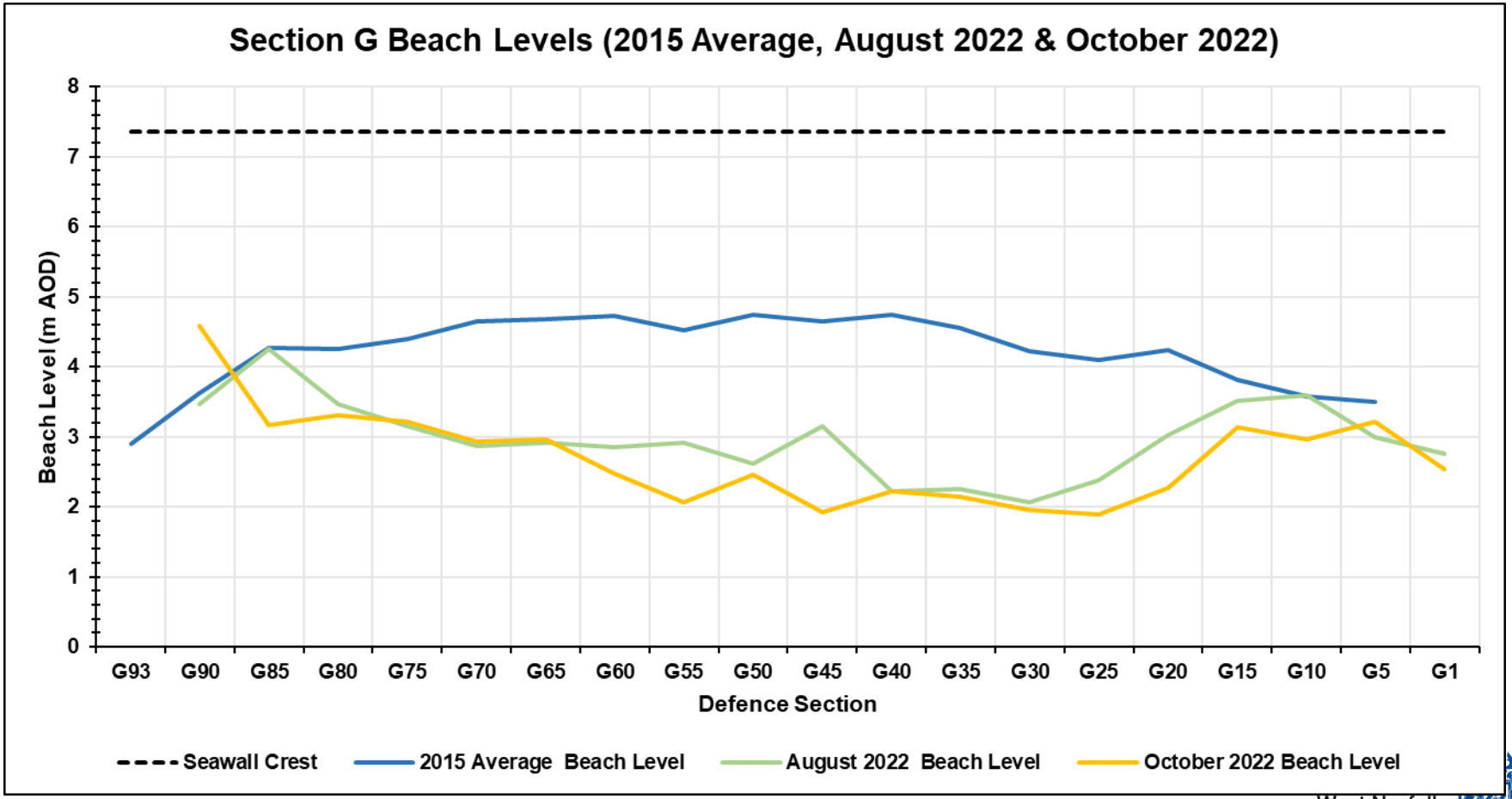

West Norfolk

Beach levels are continuing to fall beyond time period analysed in the Wash Trends Report.

Section E (2017 vs 2022)

March 2017

September 2022

Erosional trend is moving southwards.

Section D (2017 vs 2022)

March 2017

September 2022

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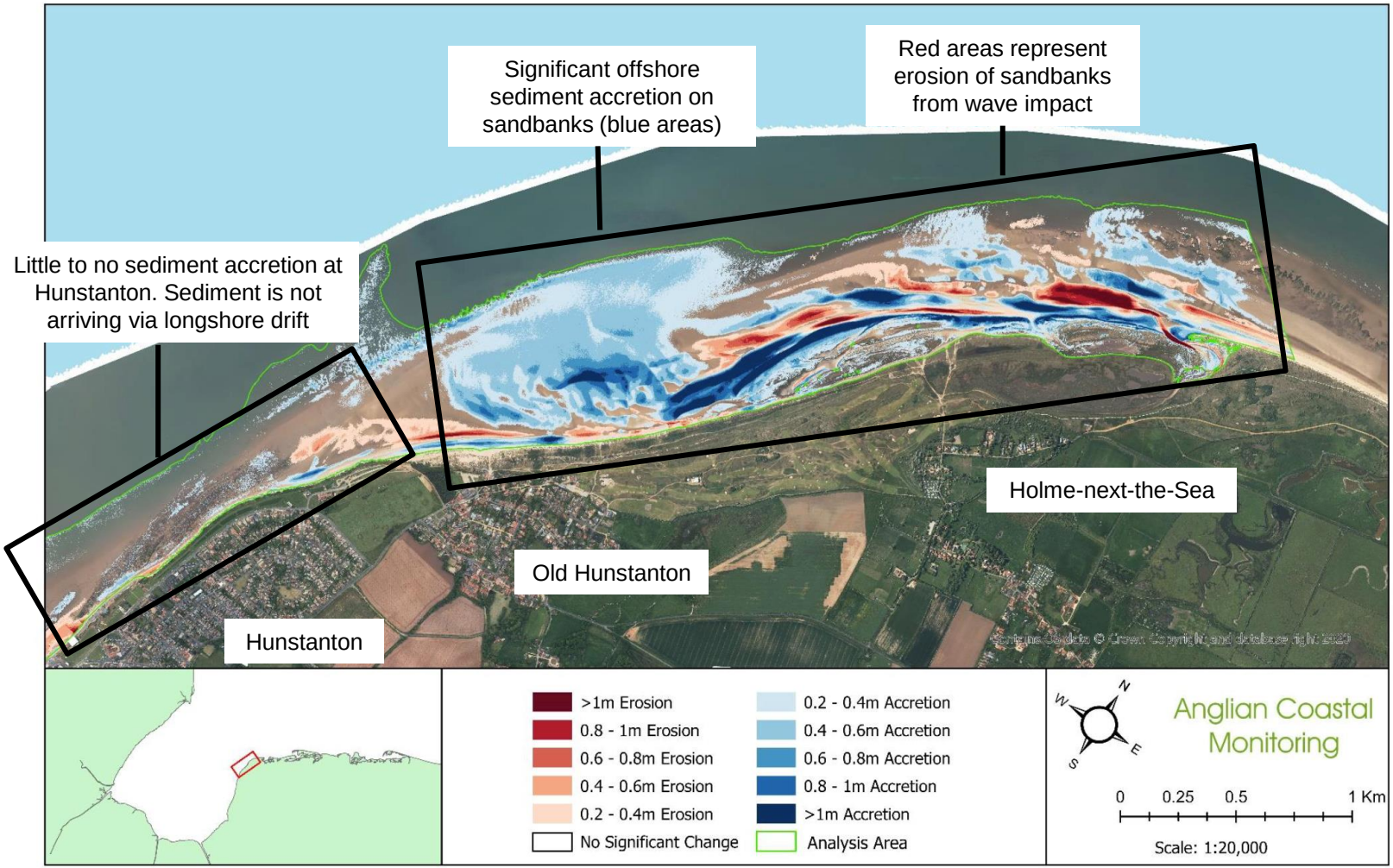
Section C (2017 vs 2022)

March 2017

September 2022

West Norfolk



Aerial LiDAR from 2012/13 to 2019/20

Wash Trends Report (2021)

Unit C – South Hunstanton to Wolferton Creek

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Wash Trends Report (Unit C)

- The trend since 1992 shows that beach volumes have been stable but there has been some changes in profile.
- The largest areas of accretion are at the Scalp with a increase since 1992.
- The most recent trends (2016-2020) shows a small loss of material.

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LiDAR Data 2016-2020

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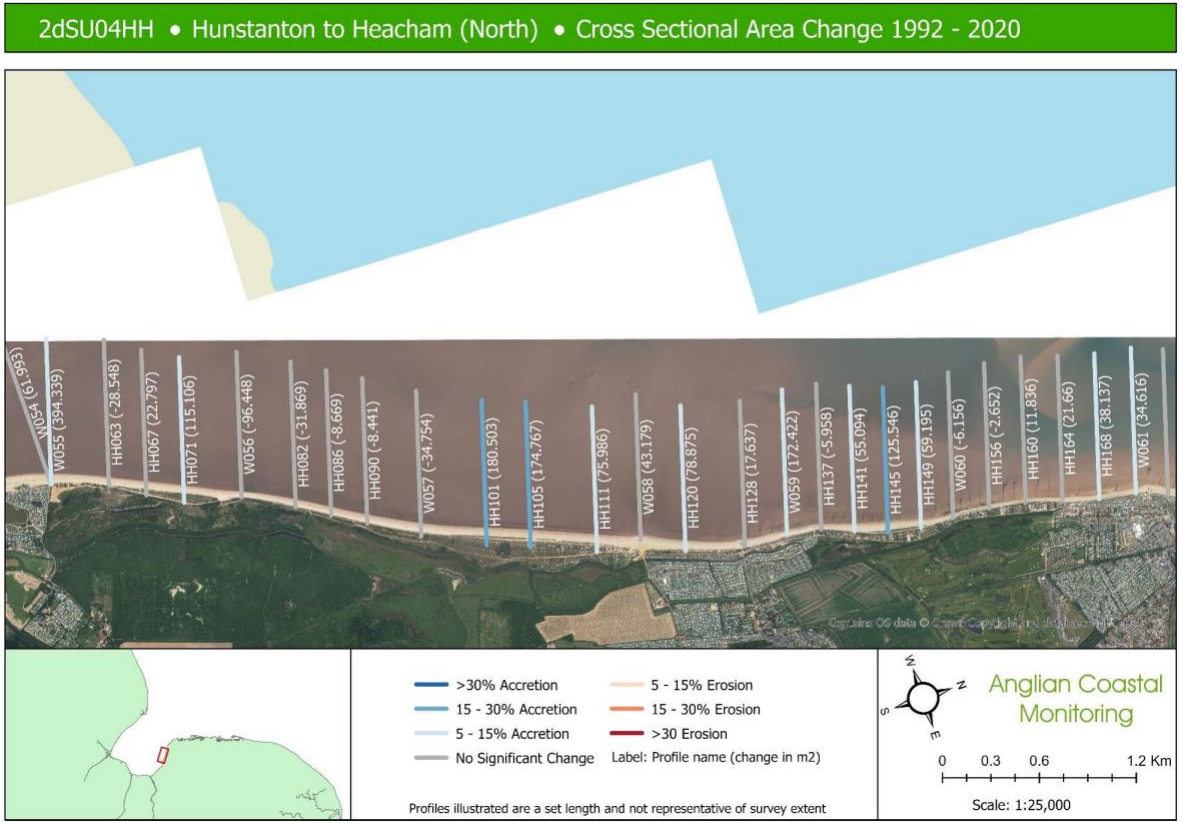
LiDAR Data 2016-2020



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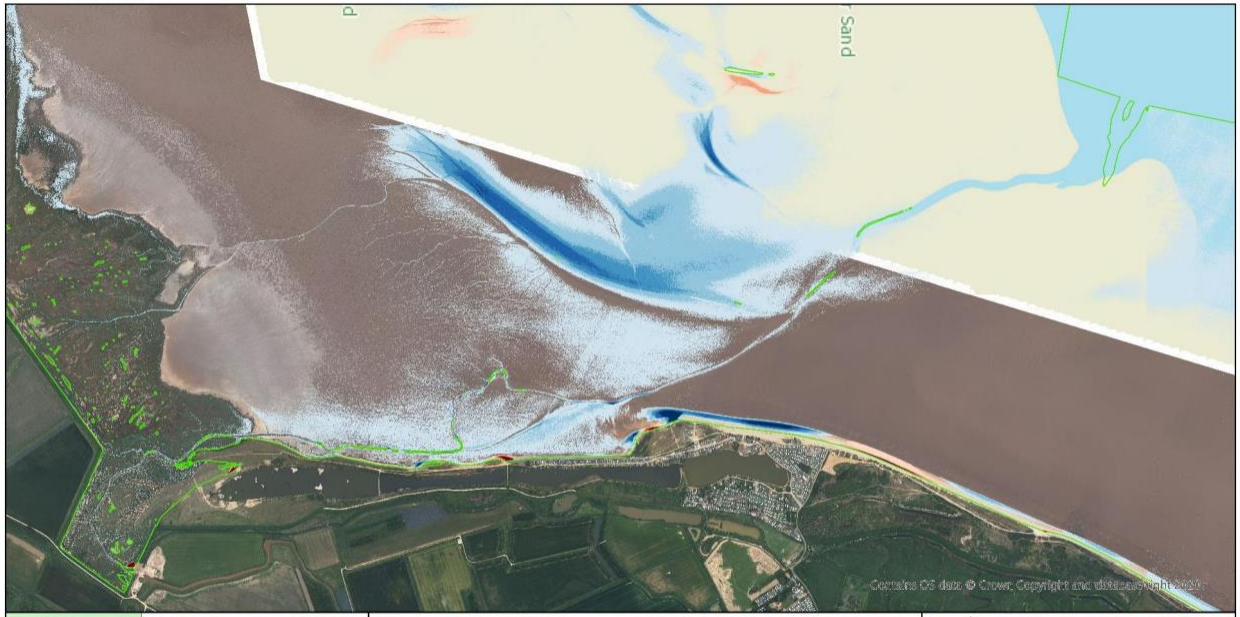
2dSU04HH • Hunstanton to Heacham (South) • LiDAR Elevation Change 2012/13 to 2019/20



>1m Erosion
0.8 - 1m Erosion
0.6 - 0.8m Erosion
0.4 - 0.6m Erosion
0.2 - 0.4m Erosion
No Significant Change

0.2 - 0.4m Accretion
0.4 - 0.6m Accretion
0.6 - 0.8m Accretion
0.8 - 1m Accretion
>1m Accretion
Analysis Area

W S N E

Anglian Coastal Monitoring

0 0.25 0.5 1 Km

Scale: 1:20,000

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2dSU04HH • Hunstanton to Heacham (South) • LiDAR Elevation Change 2018/19 to 2019/20

>1m Erosion
0.8 - 1m Erosion
0.6 - 0.8m Erosion
0.4 - 0.6m Erosion
0.2 - 0.4m Erosion
No Significant Change

0.2 - 0.4m Accretion
0.4 - 0.6m Accretion
0.6 - 0.8m Accretion
0.8 - 1m Accretion
>1m Accretion
Analysis Area

W
S
N
E

Anglian Coastal Monitoring

0 0.17 0.35 0.7 Km

Scale: 1:15,000

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4D Radar Report

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4D Radar Deployment

- 4D radar deployed between August – December 2021.
- 4D radar can penetrate water and map the seabed to a distance of 4km offshore.
- Confirmed findings of the Wash Trends and Jacobs reports.

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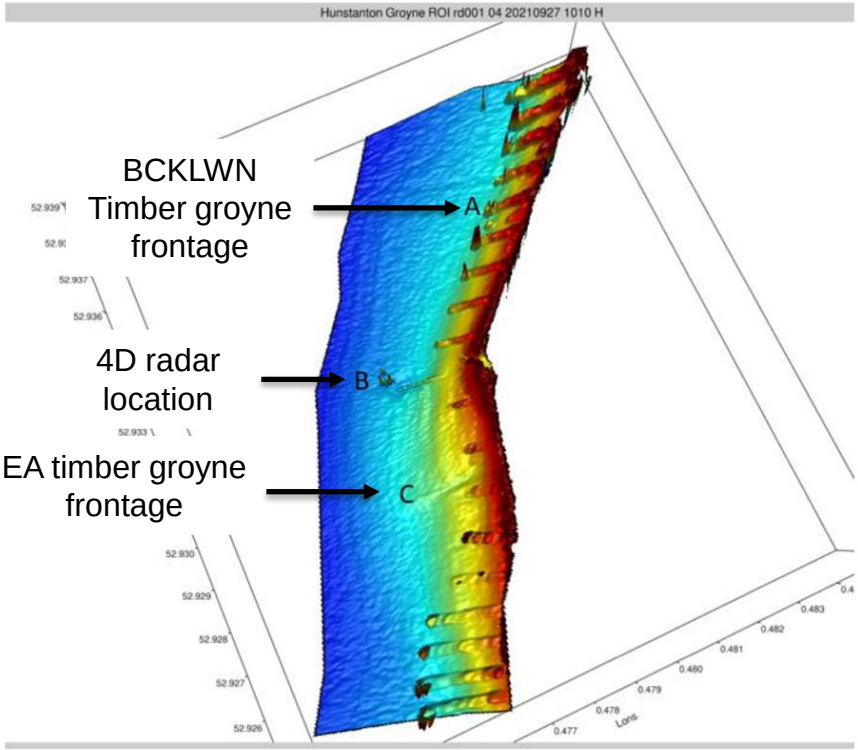
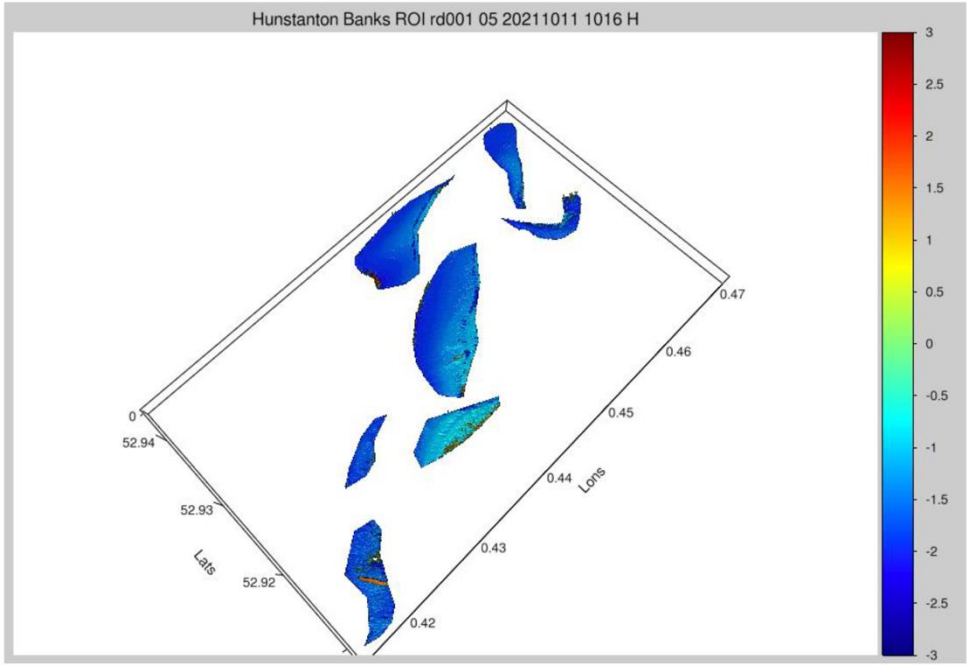
Little evidence of longshore drift reaching the frontage observed.



4D radar model of groyne field frontage

Erosion = red
Accretion = blue

Extensive network of sandbanks offshore from Hunstanton observed.



Sandbanks offshore from Hunstanton

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