This 8.5km stretch of coastline is quite unique. The survey unit starts at the Dungeness Power Station on the shingle peninsula where the steep slope shelves into the sea. Romney Sands is one of the most, if not the most, naturally accretive beach in the UK; albeit fed from anthropogenic activities down the coast in Broomhill Sands, but it has the ability to retain the shingle once it is within the frontage.

Near the lifeboat station the shingle “bulge” continues to grow and accumulates thousands of cubic meters of shingle per year. It stands at approximately 450m wide at its widest point between Dungeness Road and the beach toe; there is an additional 2km of relic vegetated shingle ridges landward of the road. The beach slope is slightly shallower than the peninsula and the beach toe is a clearly defined line with a sand/mud foreshore. The northern 1.7km of the unit is the Greatstone sand dunes with sand foreshore. There are no hard defences for the length of this unit, with only a few timber groynes towards the north.

The beach between Lydd-on-Sea and Dungeness is protected under several designations: Site of Special Scientific Interest (SSSI), Site of Nature Conservation Interest (SNCI), National Nature Reserve (NNR), Ramsar and Special Areas of Conservation (SAC).

**Survey outcome:**

There are currently no design levels for this unit. Generally all profiles on the eastern coast are at the highest recorded CSA since 2003. The profiles on the southern coast, adjacent to the Dungeness Power Station, are at the lowest recorded CSA since 2003.

<table>
<thead>
<tr>
<th>Survey type</th>
<th>Survey dates</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autumn to Spring</td>
<td>16/11/2017 - 20/04/2018</td>
<td>Relatively low level changes recorded along the majority of profiles within the Romney Sands unit. Towards the south, all but three profiles indicated less than 5% change; these larger changes are spread across the southern peninsula with the largest loss re along Profile 4c00752 (71m²/7%). North of the Pilot Inn PH, only three of 30 profiles indicate changes in excess of 5%; 4c00662 gained 14m² (11%), 4c00659 and 4c00631 lost 9m² (9%) and 9m² (7%) respectively.</td>
</tr>
<tr>
<td>Spring to Spring</td>
<td>28/02/2017 - 20/04/2018</td>
<td>During the spring to spring period, there are sporadic large gains and losses. The southern peninsula shows four profiles accreting 9% to 14%; along Profiles 4c00764 and 4c00755 with the largest gain along Profile 4c00758 (69m²/14%).</td>
</tr>
<tr>
<td>Survey type</td>
<td>Survey dates</td>
<td>Comments</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Most recent survey: Autumn 2018</strong></td>
<td></td>
<td>Since the aerial photography was taken in 2016, the position, size and shape of the “bulge” has changed, becoming much smoother and engulfing more of the coastline directly north. The profiles on the “bulge” itself have not changed significantly but the profile directly north indicate a large gain and loss respectively; Profile 4c00728 lost 56m² (10%) and 4c00725 gained 81m² (23%).</td>
</tr>
<tr>
<td><strong>Towards the north of the unit, only five profiles show relatively significant change; four gaining and one losing. Three adjacent profiles, 4c00650 to 4c00644, all gained between 9m² and 10m² (6%-9%).</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Summer to Spring</strong></td>
<td>05/07/2017 to 20/04/2018</td>
<td>Low level changes on the majority of profiles. Only 6 of the 46 beach profiles show change of +/-5%. Three profiles at/just north of the ‘shingle bulge’ show significant change, two gaining and one losing. 4c00728 lost 36m² (7%). Profiles 4c00725 and 4c00716 gained 47m² (12%) and 21m² (6%) respectively; similar to the spring to spring trends. The difference models illustrate gains throughout the majority of the frontage, equating to a net gain of 68,437m³. Polygon RS 2 recorded the only loss of 1,918m³. The most significant gain continues to be in the polygon that encompasses the shingle “bulge”, gaining 34,655m³ in the last year. During 2017 to 2018 approximately 11,000m³ of material was extracted from the Borrow Pit on the peninsula and deposited in neighbouring unit, Dungeness.</td>
</tr>
<tr>
<td><strong>Baseline to Spring</strong></td>
<td>28/07/2003 to 20/04/2018</td>
<td>The long term trends are clear with most profiles indicating significant accretion with only the two most southern profiles, 4c00770 and 4c00767, recording losses of 77m² (14%) and 6m² (1%) respectively. Both of these profiles are on the erosive south facing frontage, close to Dungeness. The largest recorded percentage gain is along Profile 4c00731 (451m²/208%). The largest recorded actual gain is 577m² (199%) along Profile 4c00746; both are located on the eastern face of the Romney Peninsula. These gains are attributed to the convergence of drift directions just north of the “bulge” whereby north of the bulge the drift is north to south and south and inclusive of the bulge the longshore drift is east to west and subsequently south to north. Towards the north of the unit all profiles have gained material. Romney Sands is the most naturally accretive shingle beach in the UK. The long term difference model illustrates significant</td>
</tr>
<tr>
<td>Survey type</td>
<td>Survey dates</td>
<td>Comments</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>----------</td>
</tr>
<tr>
<td>Most recent survey: Autumn 2018</td>
<td></td>
<td>accretion throughout the entire frontage. Individual analysis polygons indicate 627,995m³ accretion. The combined accretion between 2003 and 2018 equates to 1,599,004m³.</td>
</tr>
<tr>
<td>Spring to Autumn Profile Summary Change</td>
<td>20/04/2018 - 09/10/2018</td>
<td>Low level changes of less than +/- 5% for the majority of profiles; however, there are larger gains along the profiles towards the southern boundary 4c00758 and 4c00755 which gained 34m² (6%) and 51m² (8%) respectively. Profiles 4c00728 and 4c00722 just north of the shingle bulge also show larger gains of up to 55m² (11%). Profile 4c00631 fronting the Varne Life Boat station has also gained material this reporting period, gaining 16m² (13%).</td>
</tr>
</tbody>
</table>
South East Regional Coastal Monitoring Programme
Profile Change Summary for Autumn 2017 to Spring 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018

Annual Change in Cross-Sectional Area (m²)

- >30%
- 15-30%
- 5-15%
- >30%

ACCRETION

EROSION

Less than 5% (no change)
South East Regional Coastal Monitoring Programme
Profile Change Summary for Autumn 2017 to Spring 2018

Annual Change in Cross-Sectional Area (m²)

- >30%
- 15-30%
- 5-15%
- Less than 5% (no change)

ACCRETION

EROSION

©Aerial photography is copyright to the New Forest District Council. Additional overlaid information is copyright of Canterbury City Council 2018.
South East Regional Coastal Monitoring Programme
Profile Change Summary for Autumn 2017 to Spring 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018

Annual Change in Cross-Sectional Area (m²)

- >30%
- 15-30%
- 5-15%
- >30%
- Less than 5% (no change)
Profile Change Summary for Spring 2017 to Spring 2018

Annual Change in Cross-Sectional Area (m²)

- >30%
- 15-30%
- 5-15%
- Less than 5% (no change)

©Aerial photography is copyright to the New Forest District Council. Additional overlaid information is copyright of Canterbury City Council 2018
South East Regional Coastal Monitoring Programme
Profile Change Summary for Summer 2017 to Spring 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018

Annual Change in Cross-Sectional Area (m²)

- >30%
- 15-30%
- 5-15%
- >30%
- Less than 5% (no change)
South East Regional Coastal Monitoring Programme
Profile Change Summary for Summer 2017 to Spring 2018

Aerial photography is copyright to the New Forest District Council. Additional overlaid information is copyright of Canterbury City Council 2018.
South East Regional Coastal Monitoring Programme
Profile Change Summary for Summer 2017 to Spring 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018
South East Regional Coastal Monitoring Programme
Profile Change Summary for Baseline 2003 to Spring 2018

©Aerial photography is copyright to the New Forest District Council. Additional overlaid information is copyright of Canterbury City Council 2018

Annual Change in Cross-Sectional Area (m2)

- >30%
- 15-30%
- 5-15%
- Less than 5% (no change)

ACCRETION
EROSION
South East Regional Coastal Monitoring Programme
Profile Change Summary for Baseline 2003 to Spring 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018
South East Regional Coastal Monitoring Programme Profile Change Summary for Baseline 2003 to Spring 2018

©Aerial photography is copyright to the New Forest District Council. Additional overlaid information is copyright of Canterbury City Council 2018
South East Regional Coastal Monitoring Programme
Profile Change Summary for Baseline 2003 to Spring 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018
South East Regional Coastal Monitoring Programme
Profile Change Summary for Spring 2018 to Autumn 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018
South East Regional Coastal Monitoring Programme
Profile Change Summary for Spring 2018 to Autumn 2018

©Aerial photography is copyright to the New Forest District Council.
Additional overlaid information is copyright of Canterbury City Council 2018
South East Regional Coastal Monitoring Programme Profile Change Summary for Spring 2018 to Autumn 2018

©Aerial photography is copyright to the New Forest District Council. Additional overlaid information is copyright of Canterbury City Council 2018

Annual Change in Cross-Sectional Area (m2)

<table>
<thead>
<tr>
<th>Change Description</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCRETION</td>
<td>&gt;30%</td>
</tr>
<tr>
<td></td>
<td>15-30%</td>
</tr>
<tr>
<td></td>
<td>5-15%</td>
</tr>
<tr>
<td>EROSION</td>
<td>&lt;5% (no change)</td>
</tr>
<tr>
<td></td>
<td>15-30%</td>
</tr>
<tr>
<td></td>
<td>&gt;30%</td>
</tr>
</tbody>
</table>

- 4c0063t: 13% (-16)
- 4c00635t: -4% (-7)
- 4c00638t: -3% (-4)
- 4c00641t: 2% (3)
- 4c00644t: -1% (-2)
- 4c00647t: 1% (2)
- 4c00650t: 3% (4)
- 4c00653t: 2% (3)
- 4c00656t: 1% (1)
- 4c00659t: 8% (7)

Meters
Appendix A: Explanation of the Historic Summary Chart

The historic changes in Cross-Sectional Area (CSA) for each profile are summarised by identifying the historic highest and lowest CSA alongside the current CSA for each profile:

FIGURE A1: PRESENTATION OF STANDARD OF PROTECTION AND TRIGGER LEVELS
(A) HISTORIC VARIATION OF BEACH LEVELS (CSA)
(B) SUMMARY OF DATA, PINK BAR – CURRENT BEACH LEVEL, BLACK BARS – HISTORIC HIGH AND LOW
Appendix B: Profile Change Summary

Changes along individual profiles for a range of timeframes are summarised in a series of thematic maps on the previous pages. The maps show the location of each beach profile, superimposed on aerial photography (note the lines have been extended for clarity). The name of the profile, the percentage change of beach material and the change in m² has been including upon the line, which is illustrated in Figure B1.

FIGURE B1: PRESENTATION OF THE PROFILE CHANGE SUMMARY
**RECYCLING LOG**

**DATE:** Winter 2016/17  
**LOGGED BY:** C. French  
**WORKS CODE:**

**NOTES:** e.g. Weather, post emergency works, date of storm, scheme maintenance etc.
Extraction at the Borrow Pit has been commissioned. In total 11,193m³ was deposited towards the western half of Dungeness Power Station.

**FRONTAGE DESCRIPTION BEFORE MATERIAL PLACEMENT:** e.g. seawall exposed, berm width = 2m

**FRONTAGE DESCRIPTION AFTER MATERIAL PLACEMENT:** e.g. material profiled, crest height, berm width, profile gradient, back tipped etc.

<table>
<thead>
<tr>
<th>MATERIAL PLACED BETWEEN</th>
<th>QUANTITY OF MATERIAL</th>
<th>MATERIAL DESCRIPTION</th>
<th>Average cross-sectional area deposited (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile/ Groyne Number*</td>
<td>and: Profile/ Groyne Number*</td>
<td>Extraction/ Deposition</td>
<td>(m³)</td>
</tr>
<tr>
<td>4c00757</td>
<td>4c00751</td>
<td>EXTRACTION</td>
<td>11,193</td>
</tr>
<tr>
<td>4c00771</td>
<td>4c00800</td>
<td>DEPOSITION</td>
<td>11,193</td>
</tr>
</tbody>
</table>

* Areas can be defined using ABMS Profile numbers (see map), groyne numbers, descriptions and/or drawn on map.