Southeast Strategic Regional Coastal Monitoring Programme

ANNUAL REPORT 2008

Selsey Bill to Southampton Water

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Selsey Bill to Southampton Water

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Author: M. Stratton

Checked By: T. Mason

Approved By: A. P. Bradbury
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008 – Selsey Bill to Southampton Water

1. Introduction
Analysis presented in this interim report provides an overview of beach changes and wave and tidal measurements since the commencement of the Southeast Strategic Regional Coastal Monitoring Programme. The first beach surveys took place during the winter of 2003 and changes are reported until spring 2008. As there is now over 5 years worth of monitoring data for all profile sites, this report provides an overview of 5 yearly change, using both the topographic and bathymetric baseline data.

Data are presented at several levels:
- Process cell summary of percentage and actual profile change from 2007 to 2008
- Process cell summary of percentage and actual profile change from 2003 to 2008
- Detailed beach profile change from 2007 to 2008
- Detailed beach profile change from 2003 to 2008
- Difference model from topographic baseline surveys in 2003 and 2008
- Beach recycling events from 2003 to 2008
- Difference model from bathymetric surveys in 2004 and 2006
- Change in position of Mean High Water (MHW)
- Surface sediment distribution
- Time series of beach profile graphs (on CD)
- Trend analysis of beach cross-sectional area (on CD)

The process cell summary maps provide an at-a-glance summary of the changes during the past year and over the longer term. It is recommended that the user should use the maps to identify areas of interest and then examine the individual profile plots and trends. Colour-coded lines highlight areas of maximum change and identify profiles which might need closer examination.

Difference models have been produced where there are at least two baseline surveys to compare. Where only one baseline survey exists, the data has been modeled into a Digital Terrain Model (DTM) and overlaid on the 2005 aerial photography. In addition, the topographic baseline data has been used to extract the level of MHW from each baseline data set and sediment distribution maps are produced from the latest survey information.

It must be appreciated that the accuracies of each measurement system must be taken into account when drawing conclusions, particularly from the difference models. In the case of topographic difference models from RTK GPS surveys, the accuracy of each data point is ±0.03m and therefore differences of ±0.06m can generally be considered as "real", whilst smaller changes may be an artifact of the measuring system, and are considered to be "No Change". Difference plots show changes >±0.25m, which should be indicative of areas of genuinely measurable change. Smaller changes may also be present but these are filtered from the analysis to provide clarity. This report displays
difference models only where detailed analysis suggests that the changes are real but, nevertheless, the user should approach the results as indicative, unless reinforced over time or with other information.

Where lidar has provided the source data sets, the modeling is less precise. Each lidar cell value has a plan position representative of a 1m$^2$ grid. It is not reasonable to expect to observe changes with positional accuracy of better than 1-2m. Profiles of steep slopes may suggest that the changes “bounce” back and forth. This is an artifact of the accuracy of the source data. Lidar is particularly ineffective at identifying sharp edges or steep slopes e.g. cliffs, seawalls. Despite these limitations in accuracy the changes shown indicate an overview of profile change, but to a lower precision than the RTK data. The location of the regularly surveyed profiles superimposed on the difference plots indicates how representative these profiles might be of overall changes.

Beach recycling maps have been produced from information provided by the Local Authority for all applicable sites.

2. **Hydrodynamic data**
   a. **Waves**
   A directional Waverider buoy was deployed off Hayling Island in July 2003. The full wave report is given at Annex A.

   b. **Tides**
   There are no Regional Monitoring Programme tide gauges in this area.

3. **Survey data – topographic**
   As with previous years, the East Solent has seen relatively small percentage changes in cross sectional area over the past year, especially in the management units west of Langstone Harbour. Over the longer time period more consistent regions of erosion and accretion become apparent, most notably along the Hayling and Chichester frontages. However, unlike last year, some of these consistent regions of change can now also be observed along the Gosport and Fareham frontages. This indicates that the changes here between 2007 and 2008 have exceeded those seen between 2006 and 2007 and have therefore contributed incrementally to the longer term trend.

   Dates of the surveys are given in Annex E and the detailed topographic survey report is given in Annex F.

4. **Survey data – bathymetric**
   The first baseline bathymetric survey of Selsey Bill to Southampton Water was completed in March 2004 with a repeat survey in April 2006. Tidal control for the earlier survey, however, was particularly difficult and in some areas has led to inconsistent results when compared with later surveys. Recent surveys were conducted using GPS-derived tides which give much greater confidence in the tidal control. Where the
bathymetric data is considered potentially unreliable, the difference model has been substituted by a DTM of the latest survey from 2006.

Overall there has been relatively little change to note other than the small localised regions of change in the vicinity of the shipping channel along Southampton Water.

Annex A Hayling Island Interim Wave Report
Annex B N/A
Annex C N/A
Annex D N/A
Annex E High Level Report – field data collection (SCOPAC)
Annex F Topographic Survey Report for Selsey Bill to Southampton Water
Annex G N/A
Explanatory Notes
Hayling Island Directional Waverider Buoy

Location
OS: 473504E 93216N
WGS84: Latitude: 50°43.9936’N Longitude: 00°57.5557’W

Water Depth
10.2m CD

Instrument Type
Datawell Directional Waverider Buoy Mk III

Data Quality

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<th>Sample interval</th>
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Monthly Means

All times GMT

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<th>Tz (s)</th>
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<th>SST (°C)</th>
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Tables and plots of these values, together with the minimum and maximum values and the standard deviation are available on the website.

Highest events in 2007/8

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* Tidal information is obtained from the nearest recording tide gauge (the National Network gauge at Portsmouth). The surge shown is the residual at the time of the highest $H_s$. The maximum tidal surge is the largest positive surge during the storm event.
Distribution plots

The distribution of wave parameters is shown in the accompanying graphs of:
- Wave roses (Direction vs. $H_s$) for reporting year and all data
- Percentage of occurrence of $H_s$, $T_p$, $T_z$ and Direction from June 2007 to May 2008
- Monthly time series of significant wave height (the red line is the storm threshold)
- Incidence of storms during the reporting period and all previous years. Storms are defined using the Peaks-over-Threshold method. The highest $H_s$ of each storm is shown.

Summary

The pattern of higher frequency of storms in the previous reporting year was repeated this year, but with an increased magnitude of the higher storms. December 2007, January and early February 2008 were generally rough. Storm direction varied but was usually from between S and SSE.

The highest waves measured by the Waverider since its deployment in 2003 occurred on 10 March 2008. This storm coincided with equinoctial spring tides and was accompanied by a significant storm surge, although the peak of the storm occurred just before Low Water.

Acknowledgements

Tidal data were supplied by the British Oceanographic Data Centre as part of the function of the National Tidal and Sea Level Facility, hosted by the Proudman Oceanographic Laboratory and funded by DEFRA and the Natural Environment Research Council.
Direction vs. $H_s$ for June 2007 to May 2008 (this reporting year)

Direction vs. $H_s$ for July 2003 to May 2007 (all measured data)
Annex A                              Interim Wave Report                                   Hayling Island 2007/8

Storms at Hayling Island from Jun 2007 to May 2008

Storms at Hayling Island - all years
### Topographic surveys

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### Additional information

- **Regional Coastal Monitoring - High Level Reporting - 2008/9 (Year 7)**
- **Field data collection - SCOPAC - Year 7**
- **Profiles**
  - Profile 1: Baseline (BMP)
  - Profile 2: Target
  - Profile 3: Post-storm

- **Profiles 1-3**
  - Baseline (BMP) Profile 1
  - Target Profile 2
  - Post-storm Profile 3

- **Topographic surveys**
  - Bathymetric surveys

- **Field data - SCOPAC**
  - SCOPAC_yr7.xls, Page 1 of 2
  - 27/11/2008
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**Key:**
- Completed on time
- Surveyed, but data not submitted
- Completed late
- Not required

**Notes:**
1. Variable baseline survey completion dates due to better tidal conditions
2. Profile sequence delayed to match previous year’s survey
3. Area difficult to survey - covered by annual lidar
4. Area dangerous to survey (loose boulders, seaweed strewn), covered by annual lidar
5. Added to survey programme 2007
6. Access only during summer
7. Delayed due to bad weather
8. Baseline survey brought forward due to beach operational reasons

**Reasons for late/missing delivery:**
(7) Delayed due to bad weather
(8) Baseline survey brought forward due to beach operational reasons

1. Introduction
Analysis has been conducted for those sites where a minimum of four surveys have been recorded. In general, changes are measured relative to the Mean Low Water Springs level, although this is not been possible for much of the historic data at many of the sites. Where possible, longer-term records from earlier programmes are also presented in the profile analysis, although historical data was often collected using significantly different survey techniques, specifications and even datums. Continuity of record has been attempted but is not always possible.

A full time series of plotted beach profiles are shown superimposed and relative to a Master Profile for each profile location (on the accompanying CD). The Master Profile provides the basis for calculation of beach cross-section area changes. Where possible, identical depth boundaries have been used for all profiles within a Management Unit. However, even where this has not been possible, direct comparisons can be made for the beach cross sectional area at one profile over time, since the master profile is constant for each profile (Figure 1). In some instances, raising the lower depth of the Master Profile may reduce the overall cross sectional area of the profile. This may cause small changes in the beach profile to have a large impact on the percentage change. This effect has been taken into account in the analysis of change to beach profiles. The trend in cross-sectional area (CSA) is presented as a graph for each profile (Figure 2).

Figure 1: Example Master Profile with CSA calculated from the surveyed GPS profile
Figure 2: Example of Beach Profile Trend Analysis

1. Beach Cross-Sectional Area (CSA)
2. Replenishment Activities
3. Mathematically Derived Trend line

As part of the monitoring programme specification, each management unit receives a full topographic baseline survey once every 5 years, with the exception of BMP sites which receive an annual baseline. Baseline surveys include a full profile survey at 50m intervals and continuous spot height data collected at approximately 1m intervals across the whole beach to the level of MLWS. This continuous data also includes a feature code for each spot height data point recorded. Where possible the feature code data has been used to provide a sediment distribution map for each management unit.

Where there are at least two baseline surveys for each management unit a topographic difference model has been produced based on the spot height elevations. The raw spot height data has been processed into a grid model and successive models have been subtracted from one another to produce a difference model for the management unit. This spot height data from each survey has also been used to approximate the level of MHW along each management unit to highlight change. In some cases, where there is no topographic baseline data collected on foot the information described above may be derived from the lidar data.
For the bathymetric data, analysis has been conducted for those areas where there are a minimum of two bathymetric surveys recorded. Where possible, the changes are recorded up to 1km offshore from the Mean Low Water Neap (MLWN) contour, although in some areas this is not always possible. Where only one survey exists of a particular area, no analysis is possible and the data is presented as a DTM. In some cases, previous survey data may have been collected using different survey techniques or specifications and thus direct comparison with the latest survey is difficult. Under these circumstances only the latest survey is presented and no difference model is included.

The bathymetric data is now collected using an RTK tide correction to give real time tidal corrections for the data, rather than measured tides. Some previous data (from approximately pre-2005) may have a tidal correction derived from another source which is now considered to be unreliable to give sufficient accuracy for direct survey comparison in most cases. It should be noted that the accuracy associated with bathymetric data collection is approximately ±0.5m at best. Therefore differences of <1m should be treated as illustrative, particularly over rocky substrate. This report displays difference models only where detailed analysis suggests that the changes are real but, nevertheless, the user should approach the results as indicative, unless reinforced over time or with other information.

2. **Condition of process sub-cell**
The Beach Change Summary maps contain an at-a-glance condition of the whole of the East Solent with profile lines representing accretion, no change or erosion for each Management Unit. Whilst the maps displaying actual change in m² highlight the regions of erosion or accretion, it must be appreciated that given the long nature of many of the profile lines in the East Solent, large changes in actual volume may still only translate into small percentage changes in cross sectional area.

2. **Condition of individual Management Units**
Changes within each Management Unit are summarised on seven maps: Beach change map (Spring to Spring), beach change map (Baseline to Spring), topographic difference model maps, beach recycling maps (where applicable), MHW line maps, surface sediment distribution maps and bathymetric difference model maps or DTMs.

Beach Change maps show the location of each beach profile, superimposed on 2005 aerial photography (note that the line may have been extended for clarity). Where possible, the annual change in cross-sectional area has been calculated from spring 2007 to spring 2008 and from baseline 2003/04 to spring 2008.

It is worth noting that the majority of the recent topographic baseline surveys throughout the East Solent cover the entire intertidal zone right down to MLWS, although the 2003/2004 surveys have comparatively limited coverage. Topographic difference analysis in this report is therefore limited to the extents of the 2003/4 surveys. This also applies to the sediment balance calculation. Future analysis however will be able to able highlight changes across the entire intertidal zone.
**CPU3: Bracklesham Bay & Selsey**

**Spring 2007 to Spring 2008**

Towards the eastern end of this unit across profiles 5a00003 to 5a00010 small net gains in sediment can be observed. Moving west, profiles 5a00034 & 5a00031 (in front of the holiday village) show the most notable loss of sediment since 2007. Both show a reduction in cross sectional area of 15-30%. The rest of the unit, to the west, shows less than a 5% change across all profiles.

**Baseline Spring 2004 to Spring 2008**

As with previous comparisons the six profiles in the central region of the unit see the most significant loss of sediment, with profiles 5a00034 and 5a00031 incurring loss in excess of 30%. Localised erosion and accretion can be seen at the profiles in front of Selsey, whilst the profiles towards Bracklesham in general show less than a 5% change since 2004.

**Topographic Difference Model 2003 - 2007**

This unit has undergone significant erosion since the baseline survey of 2003. Whilst the unit is subject to frequent beach re-profiling with mechanical plant, the changes seen cannot be solely attributed to these operations. At the eastern end of the unit a large section of 1.5 – 2m vertical accretion has occurred. The zone to the western edge of the holiday park shows large scale erosion with losses in elevation ranging from 0.5 – 3m between MLWS and the back of the beach.

There appears to be a large band of accretion at the back of the barrier along some stretches of the beach. This could be the landward movement of the barrier but could also be an artifact of the replenishment operations carried out here between 2003 and 2005. In total 15,000 tons of shingle was placed at Medmerry with some of the material used to fill the void between the barrier and earth bank at the windmill section (see explanatory notes for full details). To the west of Broad Rife there is a small gap in coverage where the 2004 survey lacked data. At the unit margins there are small regions of accretion and erosion, in the range of 0.25 – 0.5m.

Given the limited availability of recycling and replenishment logs for CPU3 the analysis here is unfortunately limited and therefore cannot be placed fully into the context of the management. This highlights the importance of any beach management logs to the regional monitoring programme.

*Net Sediment Balance above MLWS from 2003 to 2007*: -71251m³

**Mean High Water Line 2003 to 2007**

At the east of the unit, where the topographic difference model showed a large section of accretion, the MHW line has moved up to 8m seaward. For the large majority of the area in front of the holiday village the MHW line has moved landward by as much as 8 – 12m. Towards the western margins of the unit only small changes in position can be seen.
CPU4: East Wittering & Bracklesham  
Spring 2007 to Spring 2008  
In contrast to last year’s report, where nearly every profile showed an accretion of sediment, this year the majority show some level of erosion. Several show losses of 5-15%.

Baseline Spring 2004 to Spring 2008  
As with last year’s observations of the unit, profiles 5a00149 & 5a00139 show the highest level of sediment loss. In general, over this longer time period there are more profiles exhibiting a net loss. Profiles 5a00119 and 5a00165 at opposite ends of the unit show the largest increases in cross sectional area, showing changes of 37m² & 30m² respectively.

Topographic Difference Model 2003 - 2008  
Across the majority of this unit a significant vertical accretion of sediment, ranging from 1-3m, can be seen at the back of the beach, more so in the west. In some parts of the unit these gains are mirrored by equal stretches of erosion from the toe of the beach seaward. The rest of the unit shows isolated changes, mostly concentrated within individual or small groups of groynae bays.

Net Sediment Balance above MLWS from 2003 to 2008: +22036 m³

Mean High Water Line 2003 to 2008  
The MHW position has moved seaward by 3-6m in the eastern and central sections of CPU4. Less significant changes are observed towards Bracklesham.

CPU5: East Head & West Wittering  
Spring 2007 to Spring 2008  
The eastern frontage of CPU5 has seen a more modest amount of accretion compared to last year’s observations, with most profiles showing an increase of less than 5%. This year several more profiles have been included for analysis at the spit hinge and neck. Here all the profiles exhibit some loss with 5a00215 & 5a00218 showing a decrease in cross sectional area of 5-15%. This loss however is mostly associated with the lower portion of the profiles. Finally, at the spit head, 5a00225 exhibits a loss of 104m² whilst 5a00229 shows a gain of 76m².

Baseline Spring 2003 to Spring 2008  
Building modestly on last year’s increases, the eastern frontage shows consistent growth in profile cross sectional area, whilst the hinge region is eroding. Inside the Harbour entrance there are localised areas of significant erosion and accretion. Profile 5a00235 at the spit tip shows the highest net gain of sediment since 2003 (106m²).

Topographic Difference Model 2004 – 2008  
The differences seen over this time period demonstrate how this whole unit is morphologically complex and prone to wide and variable change. West Wittering shows consistent accretion across the whole profile but from here right up to the spit neck there
is a long section of erosion at the seaward limit of the survey area most likely associated with the movement of the offshore channel in this region. At the spit neck and head there is a wide band of accretion, of up to 1.5m, edged on one side by a thin band of erosion at the back of the beach and on the other by a large region of erosion which stretches right down to MLWS. At the most northward fringe of the spit tip an accretion of 2m of sediment can be observed.

Net Sediment Balance above MLWS from 2004 to 2008: \( +33468 \text{m}^3 \)

**Mean High Water Line 2004 to 2008**
Movement of the MHW line reflects the differences observed in the topographic difference model, with the most significant gains seen across the West Wittering. The 2004 baseline survey did not cover the east of the unit therefore there is no data for this region.

**CPU6: South Hayling & Chichester Harbour Entrance**

**Spring 2007 to Spring 2008**
The majority of CPU6 remains relatively stable over this time period. Two profiles at the start of the Chichester approach channel do show significant loss, although these losses do not exceed the gains in cross sectional area seen at these locations last year. Profile 5a00260 exhibits a further substantial growth of 59m\(^2\) building on last years increase of 45m\(^2\). Moving west there are slight but widespread increases in profile areas until profile 5a00334, after which slight losses can be observed.

**Baseline Spring 2004 to Spring 2008**
In the longer term there appears to be more localised subsections of change throughout the unit. The most notable occurs from Chichester Harbour entrance to profile 5a00264 where the general trend is one of accretion, particularly at the recurve. Profiles 5a00298-304 & 5a00344-34 indicate regions of loss ranging from 5-15%.

**Topographic Difference Model 2003 to 2008**
This unit is subject to frequent beach recycling and replenishment operations therefore many of the changes seen over this 5 year period may be related to beach works rather than coastal process. See replenishment maps and explanatory notes for full details of replenishment and recycling operations. The CSA graphs are also useful for reference in this heavily managed area, as they show the exact timing and volumes of extraction and replenishment operations at each individual profile.
From Chichester Harbour entrance to the re-curve several large regions of accretion can be seen, most notably around the Ness and the start of the Chichester approach channel. Moving west periodic sections of erosion and accretion begin to occur over several groyne bays at a time. This trend continues up to the Inn on the Beach, where losses of up to 1.5m of sediment can be observed across the entire beach.

Net Sediment Balance above MLWS from 2003 to 2008: \( +55016 \text{m}^3 \)
Mean High Water Line 2003 to 2008
The most significant movement of MHW can be seen at the top of the Harbour entrance with a seaward movement of 6-24m. Across much of the rest of the unit there has been some seaward movement of the MHW line with the exception of the region in front of and to the west of the Inn on the Beach. These changes may reflect the extraction and replenishment activities undertaken in this unit.

CPU7: Langstone Harbour Entrance
Spring 2007 to Spring 2008
Most profiles in this unit show less than a 5% change in area, except near Langstone Harbour entrance where two profiles are eroding.

Baseline Spring 2004 to Spring 2008
Notable erosion can be observed across the three profiles at the eastern margin of this unit & one in the centre. The rest of the unit shows large increases in the cross sectional areas of many profiles.
Profiles 5a00364a and 5a00361a were added as interims last year and therefore cannot be compared with 2004.

Topographic Difference Model 2003 to 2008
Toward the east of the unit there is a large area of erosion, with the highest loss of 2.5 – 3m occurring at the back of the beach. In contrast there has been considerable accretion near the ebb delta followed by alternating patchy erosion and deposition in the Harbour entrance.

Net Sediment Balance above MLWS from 2003 to 2008: +47663m³

Mean High Water Line 2003 to 2008
The most notable movement of the MHW line occurs at the same point as the large area of accretion just before the re-curve (as mentioned in the topographic difference model comparison). Here a maximum seaward migration of 30m can be observed. Other smaller changes do occur elsewhere in the unit.

LANHBR: Hayling Billy
Baseline 2006 to Spring 2008
There are several areas of localised change throughout this unit, in particular the profiles to the south which show small increases volume. The rest of the unit remains stable.

CPU8: Hayling Ferry to Southsea Castle
Spring 2007 to Spring 2008
This unit appears to have been very stable since 2007, with only profiles 5a00419 & 5a00442 showing losses of more than 5%.
Baseline Spring 2004 to Spring 2008
On the whole the unit is stable or accreting but with some losses of sediment from profiles in the Harbour entrance. More specifically 5a00442 exhibits ongoing erosion that has increased the loss of sediment from 5-15%, as noted in last years report, to 15-30% over this longer time period.

Topographic Difference Model
There are a few large regions of erosion to the east of the unit in front of and adjacent to Fort Cumberland. Moving west a large band of accretion can be observed running through the centre of the beach almost as far as South Parade Pier. Immediately to the west of the pier there is a wide band of accretion followed by a wide band of erosion which shows losses of up to 3m at the back of the beach.

Net Sediment Balance above MLWS from 2004 to 2008: \(-55907m^3\)

Mean High Water Line
Across the central region of this unit the MHW line has moved seaward by 3-5m. Some landward movement is also seen, which coincides with the large regions of erosion mentioned above.

CPU9: Southsea Castle to Portsmouth Harbour Entrance

Spring 2007 to Spring 2008
The profiles in this unit have shown extremely little actual change in cross sectional area over this time period.
Several profiles have been added to the survey specification this year in order to give a more representative overview of the unit in the coming years. Next year they will be available for comparison.

Baseline Spring 2004 to Spring 2008
Profile 5a00554 shows the highest percentage loss of 15-30%; however this only translates into 2m² given the small overall cross sectional area of the beach. The remaining profiles show very little, if any, change.

Topographic Difference Model 2004 to 2007
The entire unit cannot be compared as not all of it was surveyed in 2004. However the beach in front of Southsea Common shows a small region of net gain since 2004 with the rest of the beach showing losses of between 0.5 – 1m.

Net Sediment Balance above MLWS from 2004 to 2007: \(-2185m^3\)

Mean High Water Line 2004 to 2007
A 10m shoreward movement of the MHW line can be observed at the eastern end of the beach in front of Southsea Common. Elsewhere little significant change can be seen.
**PORHBR: Porchester Castle to Fareham Creek**

**Spring 2007 to Spring 2008**
This unit has been generally stable since 2007; however profiles 5/9/F and 5/11/F have shown losses of 5-15%.

**Baseline Spring 2001 to spring 2008**
Over the longer time period several profiles to the west of Porchester show losses in the range of 5-15%. Profile 2-2-N at the top of Fareham Creek shows the greatest accretion since 2001. It is worth noting that whilst some profiles display changes ~ 5-15%, in real terms this only translates into small changes in cross sectional area given the particularly short nature of the profiles in this region.

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**CPU10: Gilkicker Point & Fort Monckton**

**Spring 2007 to Spring 2008**
The unit has been stable this year.

**Baseline Spring 2003 to spring 2008**
The profile inside Fort Monkton shows a marked increase in cross sectional area, whilst the profile in the groyned section shows a loss of 15-30%, and profile 5b00072 shows less than a 5% change. In the instance of 5b00066 the changes seen may be accounted for by its close proximity to an outfall pipe.

**Topographic Difference Model 2003 to 2007**
Within Fort Monkton there is evidence for the north east movement of sediment across the entire beach profile. The beach outside of the Fort shows a large area of accretion covering approx 240m edged by two smaller regions of erosion.

Net Sediment Balance above MLWS from 2003 to 2007: +6356 m³

**Hydrographic Difference Model 2004 to 2006**
Over this period there is evidence for some erosion near the Portsmouth Harbour entrance channel.

**Mean High Water Line 2003 to 2007**
Within Fort Monkton the MHW line is an expression of the changes seen in the topographic difference model, moving landward on the western half of the beach and seaward on the eastern end. To the west of the unit the MHW line can be seen to move up-to 10m seaward.

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**CPU11: Browndown Ranges to Gilkicker Point**

**Spring 2007 to Spring 2008**
This unit has been stable since spring 2007, with the exception of some minor erosion at Gilkicker point.
Baseline Spring 2003 to Spring 2008
Profile 5b00076 demonstrates the greatest loss of sediment since 2003, amounting to 16m$^2$. The rest of the unit is stable with profiles 5b000105, 5b00129, & 5b00154 showing notable accretion.

Topographic Difference Model 2003 to 2008
Despite the apparent stability of the profiles the difference modeling shows some erosion across some of the frontage in this unit. There are two large regions across the entire width of the beach in front of Browndown ranges showing up to 1m negative change. Similar levels of erosion can be identified to the east of the Stokes Bay Café, along with notable erosion close to the lifeboat station slipway. Further east there is a long band of erosion through the centre of the beach which widens at the recurve. Here losses are in excess of 1.5m. Despite the losses some small sections of accretion can be observed; in front of Browndown ranges (in between the two regions of loss), in front of Fort Gilkicker and on the wide sand flat where the river Alver runs into the sea.

Net Sediment Balance above MLWS from 2003 to 2008: -8320m$^3$

Mean High Water Line 2003 to 2008
There have been only minor movements of the MHW line over this time period.

CPU12: Hill Head Harbour to Lee-on-the-Solent
Spring 2007 to Spring 2008
The entire unit has shown less than 5% change since 2007.

Baseline Spring 2004 to Spring 2008
Overall the unit has been either stable or accreting with the exception of profiles 5b00184 & 5b00187 which show erosion of 5-15%.

Topographic Difference Model 2003 to 2006
In contrast to the apparent stability of the profiles the difference modeling highlights several patches of erosion across this unit that amount to losses of up-to 1m.

Net Sediment Balance above MLWS from 2003 to 2006: -1871m$^3$

Hydrographic Difference Model 2004 to 2006
There has been little change in the inter and sub-tidal region over this epoch.

Mean High Water Line 2003 to 2006
There have been only minor movements of the MHW line over this time period.
CPU13: Solent Breezes to Hill Head
Spring 2007 to Spring 2008
The two profiles adjacent to Hill Head Harbour appear to have undergone accretion since 2007. The rest of the profiles in the unit show less than a 5% change, these changes however are mostly negative.

Baseline 2003 to Spring 2008
The small losses since 2007 have resulted in several profiles towards Solent Breezes Holiday Park in the west now showing overall losses of up-to 15% since 2003. The rest of the unit is stable or accreting.

Topographic Difference Model 2003 to 2007
On the whole there has been relatively little change over this unit. There are however a few small areas of erosion adjacent to Hill Head Harbour followed by two small areas of accretion in front of Titchfield Haven. To the west of the unit, towards Chilling, there appears to be a thin strip of erosion running along the back of the beach, highlighting the recession of the soft cliffs that has occurred here over the past 4 years. Slightly shoreward of this, small regions of accretion can be identified.

Net Sediment Balance above MLWS from 2003 to 2007: +8414m³

Hydrographic Difference Model 2004 to 2006
The only notable changes observed over this period are a few small patches of accretion at the limit of the intertidal zone towards the centre of the unit.

Mean High Water Line 2003 to 2007
Along the beach in front of Chilling cliffs the MHW line has moved landward by up-to 3m in places. Just to the east of this there is a small section where the MHW line has migrated seaward by as much as 14m.

CPU14: Solent Breezes to Hook Lake
Spring 2007 to Spring 2008
All the profiles in this unit have shown less than a 5% change since the spring 2007 survey.

Baseline 2004 to Spring 2008
In the longer term the profiles just to the west of Solent Breezes Holiday Park, all show a reduction in cross sectional area ranging from 5-7m². The rest of the profiles in the unit are stable or marginally accreting.

Topographic Difference Model 2003 to 2008
There appears to have been erosion across the central region of this unit with vertical losses of up-to 1.5m particularly towards the back of the beach. A small amount of accretion is also apparent further north towards Hook spit.

Net Sediment Balance above MLWS from 2003 to 2008: -10161m³
**Hydrographic Difference Model 2004 to 2006**
There have been a few small changes in sea bed elevation in the offshore regions of the survey area, particularly around the mouth of the River Hamble.

**Mean High Water Line 2003 to 2008**
There has been an approximate 3-5m landward movement of the MHW line across the central region of this unit, verifying the erosion seen here in the topographic difference model.

**NET1 to NET6: Weston Point to Hamble Common**
**Spring 2007 to Spring 2008**
Over this time period there has been minimal change in this region.

**Baseline 2003 to Spring 2008**
Whilst the majority of profiles show very little change, some profiles across the Netley units do show small alterations in both the positive and negative 5-15% band. In general however these amount to relatively small actual volume change.

**Topographic Difference Model 2003 to 2007/2008**
There has been relatively little change over this period. However NET1, NET5 and NET6 do show some small isolated patches of change.

*Net Sediment Balance above MLWS from 2003 to 2008:*  
\[-2835\text{m}^3\]

**Hydrographic Difference Model 2004 to 2006**
The most notable changes in sea bed elevation over this period tend to be associated with the shipping channel, whilst the intertidal zone has seen little alteration.

**Mean High Water Line 2003 to 2007/2008**
There have been only minor movements of the MHW line over this time period.
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area Spring 2007 to Spring 2008

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **No Change**
  - 5 - 15%

- **Erosion**
  - 15 - 30%
  - > 30%

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

Annual Report 2008

SCOPAC - East Solent
Annual Actual Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30 m²
  - 15 - 30 m²
  - 5 - 15 m²

- **Erosion**
  - Less than 5 m²
  - 5 - 15 m²
  - 15 - 30 m²
  - > 30 m²

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**
Actual Change in Cross-sectional Area (m$^2$)

- **No Change**
- **Accretion**
  - $>$ 30 m$^2$
  - 15 - 30 m$^2$
  - 5 - 15 m$^2$
- **Erosion**
  - Less than 5 m$^2$
  - 5 - 15 m$^2$
  - 15 - 30 m$^2$
  - $>$ 30 m$^2$
Change in Elevation (m) between Sep 2003 and Aug 2007

EROSION  ACCRETION  No Change

>=3  2.5-  3  2-2  1.5-  2  1-1.5  0.5-  1  0.25-0.5  -0.25-0  .25  -0.5  -2--  1 .5  -2.5--2  -3--2.5  <=

Model Extent

CPU 12  CPU 11  CPU 10  CPU 9  CPU 8  CPU 7  CPU 13  CPU 14  CPU 10

0  0.5  1  2 km
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **No Change**
  - Less than 5%
  - 5 - 15%
- **Erosion**
  - 15 - 30%
  - > 30%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

CPU 3 (1 of 3) - Beach Change

SCOPAC - East Solent

Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>MU boundary</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>No Change</td>
<td>Less than 5 %</td>
</tr>
<tr>
<td></td>
<td>5 - 15 %</td>
</tr>
<tr>
<td>Erosion</td>
<td>15 - 30 %</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 %</td>
</tr>
</tbody>
</table>

Actual Annual Change in Cross-sectional Area (m²)

0 100 200 m
Change in Elevation (m) between Sep 2003 and Aug 2007

-3 to -2.5
-2.5 to -2
-2 to -1.5
-1.5 to -1
-1 to -0.5
-0.5 to 0
0 to 0.25
0.25 to 0.5
0.5 to 1
1 to 1.5
1.5 to 2
2 to 2.5
2.5 to 3
CPU3 (1 of 3) - Mean High Water Position

±

Annual Report 2008

0 100 200 m

MHW Position 1.95m OD

Sep 2003
Aug 2007

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **No Change**
  - Less than 5%
  - 5 - 15%
- **Erosion**
  - 15 - 30%
  - > 30%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

Change in Elevation (m) between Sep 2003 and Aug 2007

Model Extent

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>Symbol</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>No Change</td>
<td>Less than 5%</td>
</tr>
<tr>
<td></td>
<td>5 - 15%</td>
</tr>
<tr>
<td>Erosion</td>
<td>15 - 30%</td>
</tr>
<tr>
<td></td>
<td>&gt; 30%</td>
</tr>
</tbody>
</table>

MU boundary

Actual Annual Change in Cross-sectional Area (m²)
Change in Elevation (m) between Sep 2003 and Aug 2007

-3 -2.5 -2 -1.5 -1 -0.5 0 0.5 1 1.5 2 2.5 3

ACCURATION No Change EROSION

Model Extent
SCOPAC - East Solent

MHW Position
1.95m OD

Sep 2003
Aug 2007
Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>MU boundary</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 30 %</td>
<td>5g00212 (3)</td>
</tr>
<tr>
<td>15 - 30 %</td>
<td>5g00125 (1)</td>
</tr>
<tr>
<td>5 - 15 %</td>
<td>5g00128 (15)</td>
</tr>
<tr>
<td>No Change</td>
<td>5g00136 (16)</td>
</tr>
<tr>
<td>Less than 5 %</td>
<td>5g00121 (14)</td>
</tr>
</tbody>
</table>

Actual Annual Change in Cross-sectional Area (m$^2$)

- Accretion
- Erosion
- No Change
- Less than 5 %
Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>Code</th>
<th>Case Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 30 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 30 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 15 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 15 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 30 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 30 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Change in Elevation (m) between Sep 2003 and March 2008

<table>
<thead>
<tr>
<th>Change in Elevation</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5-3</td>
<td>Light Blue</td>
</tr>
<tr>
<td>2-1.5</td>
<td>Light Yellow</td>
</tr>
<tr>
<td>1.5-1</td>
<td>Yellow</td>
</tr>
<tr>
<td>1-0.5</td>
<td>Orange</td>
</tr>
<tr>
<td>0.5-0</td>
<td>Dark Red</td>
</tr>
<tr>
<td>0.25-0</td>
<td>Light Red</td>
</tr>
<tr>
<td>-0.25-0</td>
<td>Orange</td>
</tr>
<tr>
<td>-0.5-0</td>
<td>Yellow</td>
</tr>
<tr>
<td>-1-0.5</td>
<td>Light Yellow</td>
</tr>
<tr>
<td>-1.5-1</td>
<td>Light Blue</td>
</tr>
<tr>
<td>-2-2.5</td>
<td>Blue</td>
</tr>
<tr>
<td>-2.5-3</td>
<td>Cyan</td>
</tr>
<tr>
<td>-3-3.5</td>
<td>Green</td>
</tr>
<tr>
<td>-3.5-4</td>
<td>Light Green</td>
</tr>
</tbody>
</table>

Model Extent

MHW Position
1.71m OD

- Sep 2003
- Mar 2008
Sediment Type

- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - > 30%
  - 15 - 30%
  - 5 - 15%

**No Change**
Less than 5%

**Actual Annual Change in Cross-sectional Area (m²)**

**MU boundary**

5g00212 (3)
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

Change in Elevation (m) between
Sep 2003 and March 2008

Accretion No Change Erosion

Model Extent


SCOPAC - East Solent
Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction

± 0 100 200 m
**Southeast Strategic Regional Coastal Monitoring Programme**

**Annual Report 2008**

**CPU5 (1 of 3) - Beach Change**

**SCOPAC - East Solent**

---

**Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)**

- **Accretion**
  - > 30%
  - 16 - 30%
  - 5 - 15%
  - Less than 5%
- **Erosion**
  - 16 - 30%
  - > 30%

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

---

**5g00212 (3)**
Change in Elevation (m) between Aug 2004 and Jul 2008

ACCUREMENT  No Change  EROSION

Model Extent

CPU5  (1 of 3) - Topographic Difference Model (2008 - 2004)  
SCOPAC - East Solent
MHW Position
1.71m OD

Aug 2004

Jul 2008

CPU5 (1 of 3) - Mean High Water Position

SCOPAC - East Solent

Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008
CPU5 (2 of 3) - Beach Change

Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%

**No Change**

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

Annual Report 2008

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

<table>
<thead>
<tr>
<th>Category</th>
<th>Change 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>No Change</td>
<td>Less than 5 %</td>
</tr>
<tr>
<td></td>
<td>5 - 15 %</td>
</tr>
<tr>
<td></td>
<td>15 - 30 %</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 %</td>
</tr>
</tbody>
</table>

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

5a00220 (51)
5a00215 (-22)
5a00212 (-33)
5a00208 (80)
5a00201 (72)
5a00188 (18)
5a00168 (10)
5a00168 (10)

Southeast Strategic Regional Coastal Monitoring Programme
Annual Report 2008

CPU 5 (2 of 3) - Beach Change
SCOPAC - East Solent
SCOPAC - East Solent

MHW Position
1.71m OD

Aug 2004
Jul 2008
**Sediment Type**

- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Sand
- Sea Defence
- Shell
- Saltmarsh
- Water body
- Mixture
- Obstruction

**CPU5 (2 of 3) - Surface Sediment Distribution (July 2008)**

**SCOPAC - East Solent**
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Category</th>
<th>&gt; 30 %</th>
<th>15 - 30 %</th>
<th>5 - 15 %</th>
<th>Less than 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erosion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accretion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Actual Annual Change in Cross-sectional Area (m²)

- >30%
- 15 - 30%
- 5 - 15%
- Less than 5%
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

**MU boundary**

Actual Annual Change in Cross-sectional Area (m²)
Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- Accretion:
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- Erosion:
  - 5 - 30%
  - > 30%

No Change:
- 5 - 15%
- 5 - 15%
- 15 - 30%
- > 30%
Change in Elevation (m) between Aug 2003 and Jul 2008

ACCUMULATION No Change EROSION

Model Extent

EROSION

ACCRETION

No Change

SCOPAC - East Solent

SEEM STRATEGIC REGIONAL COASTAL MONITORING PROGRAMME

Annual Report 2008

CPU6 (1 of 4) - Topographic Difference Model (2008 - 2003)
Change in Elevation (m) between Sept 2003 and June 2008

-3 - -2.5
-2 - -1.5
-1 - -1
-1.5 - -0.5
-2.5 - -2
-3 - -2.5
0.25 - 0.5
0.5 - 1
1 - 1.5
1.5 - 2
2 - 2.5
2.5 - 3
3 - 1.5

ACCRETION No Change EROSION

Nourishment Site 2008
Extraction Site 2008
Nourishment Site 2007
Extraction Site 2007
Nourishment Site 2006
Extraction Site 2006
Nourishment Site 2005
Extraction Site 2005
Nourishment Site 2004
Extraction Site 2004
MHW Position
1.71m OD

Aug 2003
Jul 2008
Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction
Change in Elevation (m) between Aug 2003 and Jul 2008

- ACCRETION
- No Change
- EROSION

Model Extent


SCOPAC - East Solent
Annual Report 2008

Southeast Strategic Regional Coastal Monitoring Programme

Change in Elevation (m) between Sept 2003 and June 2008

ACCRETION  No Change  EROSION

Nourishment Site 2008
Extraction Site 2008
Nourishment Site 2007
Extraction Site 2007
Nourishment Site 2006
Extraction Site 2006
Nourishment Site 2005
Extraction Site 2005
Nourishment Site 2004
Extraction Site 2004

SCOPAC - East Solent

Beach Nourishment and Extraction Events (2008 - 2003)
Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction

SCOPAC - East Solent

CPU6 (2 of 4) - Surface Sediment Distribution (July 2008)
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30 %
  - 15 - 30 %
  - 5 - 15 %

- **Erosion**
  - Less than 5 %
  - 5 - 15 %
  - 15 - 30 %
  - > 30 %

**No Change**

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m^2)**

**SCOPAC - East Solent**
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

MU boundary

**Actual Annual Change in Cross-sectional Area (m²)**

- **5g00212 (3)**
Change in Elevation (m) between Aug 2003 and Jul 2008

ACCRETION  No Change  EROSION

Model Extent
Change in Elevation (m) between Sept 2003 and June 2008

- ACCRETION
- No Change
- EROSION

- Orange: Nourishment Site 2008
- Brown: Extraction Site 2008
- Green: Nourishment Site 2007
- Pink: Extraction Site 2007
- Purple: Nourishment Site 2006
- Blue: Extraction Site 2006
- Blue: Nourishment Site 2005
- Pink: Extraction Site 2005
- Pink: Nourishment Site 2004
- Dark Blue: Extraction Site 2004
MHW Position
1.71m OD

- Blue: Aug 2003
- Red: Jul 2008

CPU6 (3 of 4) - Mean High Water Position

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

**Accretion**
- > 30%
- 15 - 30%
- 5 - 15%

**Erosion**
- < 5%
- 5 - 15%
- 15 - 30%
- > 30%

No Change
- Less than 5%

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

- 5g00212 (3)
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- Accretion:
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- Erosion:
  - 15 - 30%
  - > 30%

- No Change:
  - 5 - 15%
  - Less than 5%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

±

Annual Report 2008

SCOPAC - East Solent
Change in Elevation (m) between Sept 2003 and June 2008

-3 - -2.5
-2 - -1.5
-1 - -1
0 - -0.5
0.25 - 0.5
1 - 1.5
2 - 2.5
2.5 - 3

Nourishment Site 2008
Extraction Site 2008
Nourishment Site 2007
Extraction Site 2007
Nourishment Site 2006
Extraction Site 2006
Nourishment Site 2005
Extraction Site 2005
Nourishment Site 2004
Extraction Site 2004
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent

MHW Position
1.71m OD

Aug 2003
Jul 2008
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- Accretion:
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - < 5%
- Erosion:
  - 15 - 30%
  - > 30%
  - < 5%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

CPU 7 (1 of 2) - Beach Change

SCOPAC - East Solent
Change in Elevation (m) between Jul 2003 and Aug 2008

ACCIDENTION No Change EROSION

Model Extent
MHW Position
1.52m OD

- Jul 2003
- Jul 2007

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**
Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2007)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 15 - 30%
  - > 30%

No Change
- 5 - 15%
- Less than 5%

Actual Annual Change in Cross-sectional Area (m^2)

MU boundary

- 5g00212 (3)
- 5a00409 (4)
- 5a00406 (-10)
- 5a00403 (6)
- 5a00400 (21)
- 5a00396 (43)
- 5a00394 (55)
- 5a00391 (-64)

SCOPAC - East Solent
Change in Elevation (m) between Jul 2003 and Aug 2008

ACCENTION No Change EROSION

Model Extent
MHW Position
1.52m OD

- Jul 2003
- Jul 2007
<table>
<thead>
<tr>
<th>Sediment Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boulders</td>
</tr>
<tr>
<td>Dune</td>
</tr>
<tr>
<td>Grass</td>
</tr>
<tr>
<td>Gravel</td>
</tr>
<tr>
<td>Gravel &amp; Sand</td>
</tr>
<tr>
<td>Mud</td>
</tr>
<tr>
<td>Mud &amp; Sand</td>
</tr>
<tr>
<td>Rock</td>
</tr>
<tr>
<td>Saltmarsh</td>
</tr>
<tr>
<td>Sea Defence</td>
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<tr>
<td>Shell</td>
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<tr>
<td>Water body</td>
</tr>
<tr>
<td>Mixture</td>
</tr>
</tbody>
</table>

**SCOPAC - East Solent**

**Annual Report 2008**

**Southeast Strategic Regional Coastal Monitoring Programme**
Annual % Change in Cross-sectional Area (Baseline 2006 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%

- **Erosion**
  - 15 - 30%
  - > 30%

- **No Change**
  - Less than 5%
  - 5 - 15%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)
Annual % Change in Cross-sectional Area (Baseline 2006 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

- **Erosion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%
  - 15 - 30%
  - > 30%

Actual Annual Change in Cross-sectional Area (m²)

- **No Change**

- **Accleration**

- **Erosion**

MU boundary

5a00411L (-4)
5a00411N (0)
5a00411P (0)
5a00411Q (0)
5a00411R (0)
5g00212 (3)
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Baseline 2006 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

**MU boundary**

Actual Annual Change in Cross-sectional Area (m²)

- **No Change**

**Geographical Information**

- SCOPAC - East Solent
- LANGHbr (3 of 4) - Beach Change

- Annual Report 2008

- ± 0 100 200 m
Annual % Change in Cross-sectional Area (Baseline 2006 to Spring 2008)

<table>
<thead>
<tr>
<th>Accretion</th>
<th>&gt; 30 %</th>
<th>15 - 30 %</th>
<th>5 - 15 %</th>
<th>Less than 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erosion</td>
<td>&gt; 30 %</td>
<td>15 - 30 %</td>
<td>5 - 15 %</td>
<td>Less than 5 %</td>
</tr>
</tbody>
</table>

Actual Annual Change in Cross-sectional Area (m²)

Accretion
- > 30%
- 15 - 30%
- 5 - 15%
- Less than 5%

Erosion
- > 30%
- 15 - 30%
- 5 - 15%
- Less than 5%
LANHBR - Bathymetric Model 2006

SCOPAC - East Solent

Baseline Survey, 2006

Elevation (metres OD)
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30 %
  - 15 - 30 %
  - 5 - 15 %
- **No Change**
  - Less than 5 %
  - 5 - 15 %
  - 15 - 30 %
- **Erosion**
  - > 30 %

**Actual Annual Change in Cross-sectional Area (m²)**

- **5g00212 (3)**
- **5a00419 (-4)**
- **5a00423 (2)**
- **5a00426 (1)**
- **5a00428 (4)**

**MU boundary**
SCOPAC - East Solent

Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%

**MU boundary**

*Actual Annual Change in Cross-sectional Area (m²)*

- 5a00414 (-1)
- 5a00419 (-3)
- 5a00423 (-3)
- 5a00426 (-18)
- 5a00428 (26)
- 5a00433 (1)
- 5a00433 (1)
Change in Elevation (m) between April 2004 and Oct 2008

ACCRETION  No Change  EROSION

Model Extent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **No Change**
  - Less than 5%
  - 5 - 15%

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

CPU 8 (2 of 4) - Beach Change

Annual Report 2008

Southeast Strategic Regional Coastal Monitoring Programme

SCOPAC - East Solent
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

**CPU 8 (2 of 4) - Beach Change**

SCOPAC - East Solent

**Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)**

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%

- **Erosion**
  - < 15%
  - 15 - 30%
  - > 30%

**No Change**

- Less than 5%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)
Change in Elevation (m) between April 2004 and Oct 2008

-3 -2.5 -2 -1.5 -1 -0.5 -0.25 -0.5 0 0.25 0.5 1 1.5 2 2.5 3

±

0 100 200 m

ACCRETION No Change EROSION

Model Extent
Annual Report 2008

Southeast Strategic Regional Coastal Monitoring Programme

CPU8 (2 of 4) - Mean High Water Position

MHW Position 1.52m OD

±

0 100 200 m

Oct 2008

SCOPAC - East Solent

Jan 2004
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent

Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

MU boundary

Accretion

> 30 %
15 - 30 %
5 - 15 %

Erosion

Less than 5 %
5 - 15 %
15 - 30 %
> 30 %

Actual Annual Change in Cross-sectional Area (m²)

0 100 200 m
Change in Elevation (m) between April 2004 and Oct 2008

-3 <= -1.5 -1.5 -1.5 -0.5 -0.25 -0.25 -0.5 -1 -1.5 -2 -2.5
-3 -2.5 -2 -1.5 -1 -0.5 -0.25 0.25 0.5 1 1.5 2 2.5 3
-0.25 -0.5 0.5 1 1.5 2 2.5 3

± 0 100 200 m

ACCRETION No Change EROSION

Model Extent
SCU8 (3 of 4) - Mean High Water Position

SCOPAC - East Solent

MHW Position
1.52m OD

- Oct 2008
- Jan 2004

South East Strategic Regional Coastal Monitoring Programme

Annual Report 2008
Sediment Type

- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction

CPU8 (3 of 4) - Surface Sediment Distribution (October 2008)

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 15 - 30%
  - > 30%
  - 5 - 15%

**No Change**
-

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

- 5a0049 (1)
- 5a0050 (2)
- 5a0051 (1)
- 5a0052 (1)
- 5a0053 (1)
- 5a0054 (2)
- 5a0055 (7)
- 5a0056 (7)
- 5a0057 (7)
- 5a0058 (7)
- 5a0059 (7)
- 5g00212 (3)
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- > 30%
- 15 - 30%
- 5 - 15%
- No Change
- Less than 5%
- 5 - 15%
- 15 - 30%
- > 30%

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

Southeast Strategic Regional Coastal Monitoring Programme
Annual Report 2008

CPU 8 (4 of 4) - Beach Change

SCOPAC - East Solent
Change in Elevation (m) between April 2004 and Oct 2008

-3 ≤ -1.5
-1.5 ≤ -1
-1 ≤ -0.5
-0.5 ≤ -0.25
-0.25 ≤ 0.25
0.25 ≤ 0.5
0.5 ≤ 1
1 ≤ 1.5
1.5 ≤ 2
2 ≤ 2.5
2.5 ≤ 3

±100m

CPU8 (4 of 4)  -  Topographic Difference Model (2008 - 2004)  SCOPAC - East Solent
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Category</th>
<th>Change</th>
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<tbody>
<tr>
<td>Accretion</td>
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<td>15 - 30%</td>
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<td></td>
<td>5 - 15%</td>
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<td>No Change</td>
<td>Less than 5%</td>
</tr>
<tr>
<td>Erosion</td>
<td>5 - 15%</td>
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<td>15 - 30%</td>
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<td></td>
<td>&gt; 30%</td>
</tr>
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</table>

Actual Annual Change in Cross-sectional Area (m²)

μboundary

CPU 9 (1 of 2) - Beach Change

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- Accretion
  - > 30%
  - 15 - 30%
  - 5 - 15%
- Erosion
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%
- No Change

5a00544 (0)
5a00538 (-14)
5a00555 (-2)
5g00212 (3)

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

0 100 200 m

Southeast Strategic Regional Coastal Monitoring Programme
Annual Report 2008

CPU 9 (1 of 2) - Beach Change

SCOPAC - East Solent
Change in Elevation (m) between Feb 2004 and Aug 2007

-3 -1.5 -1 -0.5 0 0.5 1 1.5 2 2.5 3

ACCRETION No Change EROSION

Model Extent
Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- **Accretion**:
  - > 30%
  - 15 - 30%
  - 5 - 15%

- **Erosion**:
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

**No Change**:

<table>
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<th>Actual Annual Change in Cross-sectional Area (m²)</th>
<th>MU boundary</th>
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<tr>
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</table>

**Annual Report 2008**
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%

- **No Change**
  - 5 - 15%
  - Less than 5%

**Actual Annual Change in Cross-sectional Area (m²)**

- 5g00212 (3)
Annual % Change in Cross-sectional Area (Baseline 2001 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 15 - 30%
  - > 30%

- **No Change**
  - 5 - 15%

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<th>Actual Annual Change in Cross-sectional Area (m^2)</th>
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<tr>
<td>5/12/F (-1)</td>
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</tr>
<tr>
<td>5/13/F (-1)</td>
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<td>5/20/F (-1)</td>
<td></td>
</tr>
<tr>
<td>5/21/F (-1)</td>
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<tr>
<td>5/22/F (-1)</td>
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</tr>
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<td>5/23/F (0)</td>
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<td>5/24/F (1)</td>
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</tr>
<tr>
<td>4/5/F (-1)</td>
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<td>5/9/F (-1)</td>
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<td></td>
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<tr>
<td>5/12/F (-1)</td>
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<tr>
<td>5/13/F (-1)</td>
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<tr>
<td>5/14/F (-1)</td>
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</tbody>
</table>
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- Accretion:
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- Erosion:
  - 5 - 15%
  - 15 - 30%
  - > 30%
  - No Change

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent

Annual % Change in Cross-sectional Area (Baseline 2001 to Spring 2008)

- Accretion
  - > 30%
  - 15 - 30%
  - 5 - 15%
- Erosion
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

PORHBR (2 of 2) - Beach Change

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%

No Change

Actual Annual Change in Cross-sectional Area (m²)

- **Accretion**
  - More than 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%

Less than 5%
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **No Change**

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

```
<30%  15-30%  5-15%  <5%
```

CPU 10 (1 of 1) - Beach Change

SCOPAC - East Solent

Annual Report 2008
Change in Elevation (m) between April 2003 and Aug 2007

<table>
<thead>
<tr>
<th>Change in Elevation</th>
<th>Code</th>
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<td>2 - 2.5</td>
<td>Light Blue</td>
</tr>
<tr>
<td>1.5 - 2</td>
<td>Light Blue</td>
</tr>
<tr>
<td>1 - 1.5</td>
<td>Light Blue</td>
</tr>
<tr>
<td>0.5 - 1</td>
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</tr>
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</tbody>
</table>

Model Extent
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

CPU10 (1 of 1) - Mean High Water Position

SCOPAC - East Solent

MHW Position
1.52m OD

Apr 2003
Jul 2008

0 100 200 m

1.52m OD

MHW Position

Apr 2003

Jul 2008

0 100 200 m
Change in Elevation (m) between Sep 2004 and Nov 2006

ACCRETION  No Change  EROSION

Model Extent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%

- **Erosion**
  - 15 - 30%
  - > 30%

- **No Change**
  - Less than 5%
  - 5 - 15%

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

**SCOPAC - East Solent**
Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Accretion</td>
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<td></td>
<td>&gt; 30 %</td>
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<td>15 - 30 %</td>
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<td>5 - 15 %</td>
</tr>
<tr>
<td>No Change</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less than 5 %</td>
</tr>
<tr>
<td></td>
<td>5 - 15 %</td>
</tr>
<tr>
<td>Erosion</td>
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<tr>
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<td>15 - 30 %</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 %</td>
</tr>
</tbody>
</table>

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent


Change in Elevation (m) between Aug 2003 and Aug 2008

-3 -2.5 -2 -1.5 -1 -0.5 -0.25 0 0.25 0.5 1 1.5 2 2.5 3

ACCREDITON No Change EROSION

Model Extent

±

0 100 200 m
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%

- **Erosion**
  - < 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

**No Change**
- Less than 5%

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

**CPU 11 (2 of 3) - Beach Change**

**SCOPAC - East Solent**

**Annual Report 2008**
Southeast Strategic Regional Coastal Monitoring Programme

CPU 11 (2 of 3) - Beach Change

Annual Report 2008

SCOPAC - East Solent

Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

- Accretion
  - > 30%
  - 15 - 30%
  - 5 - 15%
- No Change
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
- Erosion
  - > 30%

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

5g00212 (3)
SCOPAC - East Solent

Change in Elevation (m) between Aug 2003 and Aug 2008

ACCUREMENT No Change EROSION

Model Extent
MHW Position
1.52m OD

- Blue: Apr 2003
- Red: Mar 2008
**Southeast Strategic Regional Coastal Monitoring Programme**

**Annual Report 2008**

**CPU 11 (3 of 3) - Beach Change**

**SCOPAC - East Solent**

---

**Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)**

- **Accretion**
  - > 30 %
  - 15 - 30 %
  - 5 - 15 %
- **No Change**
  - Less than 5 %
  - 5 - 15 %
- **Erosion**
  - 15 - 30 %
  - > 30 %

---

**Actual Annual Change in Cross-sectional Area (m²)**

**MU boundary**

---

**5g00212 (3)**

---

**5g00160 (0)**

---

**5g00154 (5)**

---

**5g00148 (-5)**

---

**5g00149 (-2)**

---
MHW Position
1.52m OD

Blue line: Apr 2003
Red line: Mar 2008
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%
- **No Change**
  - Less than 5%

Actual Annual Change in Cross-sectional Area (m^2)

MU boundary

Annual Report 2008

CPU 12 (1 of 3) - Beach Change

SCOPAC - East Solent
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

MHW Position
1.36m OD

CPU12 (1 of 3) - Mean High Water Position

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>MU boundary</th>
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<tbody>
<tr>
<td>Acreation</td>
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<tr>
<td>Erosion</td>
<td>&gt; 30 %</td>
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<td>15 - 30 %</td>
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Actual Annual Change in Cross-sectional Area (m²)

CPU 12 (2 of 3) - Beach Change

SCOPAC - East Solent

Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008
Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>5 - 15 %</th>
<th>15 - 30 %</th>
<th>&gt; 30 %</th>
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<tbody>
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<tr>
<td>No Change</td>
<td>Less than 5%</td>
<td>5 - 15 %</td>
<td>15 - 30 %</td>
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</table>

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

5g00212 (3)

0 100 200 m
Change in Elevation (m) between June 2003 and Aug 2006

Model Extent

ACCRETION No Change EROSION
Annual Report 2008

MHW Position
1.36m OD

Jun 2003
Sep 2006

SCOPAC - East Solent
Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

**Accretion**
- > 30%
- 15 - 30%
- 5 - 15%

**Erosion**
- Less than 5%
- 5 - 15%
- 15 - 30%
- > 30%

**No Change**
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - Less than 5%
  - 5 - 15%
  - 15 - 30%
  - > 30%

**Actual Annual Change in Cross-sectional Area (m²)**

- MU boundary

**SOUTH EAST STRATEGIC REGIONAL COASTAL MONITORING PROGRAMME**

**CPU 12 (3 of 3) - Beach Change**

**SCOPAC - East Solent**

**Annual Report 2008**
Change in Elevation (m) between June 2003 and Aug 2006

-2.5--2
-1.5--1
-1--0.5
-0.5--0
0--0.25
0.25--1
1--1.5
1.5--2
2--2.5
2.5--3
3--3

ACCRETION No Change EROSION

Model Extent

SCOPAC - East Solent

CPU12 (3 of 3) - Mean High Water Position

MHW Position 1.36m OD

Jun 2003

Sep 2006
CPU12 (3 of 3) - Surface Sediment Distribution (September 2006)

Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction

± 01 0 0 2 0 0 m
Change in Elevation (m) between Sep 2004 and Oct 2006

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<td>Orange</td>
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<tr>
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<td>Yellow</td>
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<tr>
<td>-1.5 - -2</td>
<td>Light Green</td>
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<tr>
<td>&gt;=3</td>
<td>Dark Red</td>
</tr>
</tbody>
</table>

Model Extent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

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

- No Change
  - Less than 5%
  - 5 - 15%

- Erosion
  - 15 - 30%
  - > 30%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

<table>
<thead>
<tr>
<th></th>
<th>Spring 2007 to Spring 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
<td></td>
</tr>
<tr>
<td>Erosion</td>
<td></td>
</tr>
<tr>
<td>No Change</td>
<td></td>
</tr>
</tbody>
</table>
Change in Elevation (m) between June 2003 and Aug 2007

ACCRETION No Change EROSION

Model Extent
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

CPU13 (1 of 2) - Mean High Water Position

0 100 200 m

MHW Position
1.36m OD

July 2003
Oct 2007

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

Accretion
- > 30 %
- 15 - 30 %
- 5 - 15 %
- Less than 5 %

No Change
- 5 - 15 %
- 15 - 30 %
- > 30 %

Erosion
- > 30 %
- 15 - 30 %
- 5 - 15 %
- Less than 5 %

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

±
**Southeast Strategic Regional Coastal Monitoring Programme**

**CPU 13 (2 of 2) - Beach Change**

**Annual Report 2008**

**SCOPAC - East Solent**

---

**Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)**

<table>
<thead>
<tr>
<th>Category</th>
<th>&lt; 5%</th>
<th>5 - 15%</th>
<th>15 - 30%</th>
<th>&gt; 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Accretion**: > 30
- **15 - 30%**: 15 - 30%
- **5 - 15%**: 5 - 15%
- **No Change**: Less than 5%
- **Erosion**: 15 - 30%
- **> 30%**: > 30%

---

**Actual Annual Change in Cross-sectional Area (m²)**

- **MU boundary**
- **5g00212 (3)**

---

**Scale**: 0 100 200 m
Change in Elevation (m) between June 2003 and Aug 2007

Model Extent
CPU13 (2 of 2) - Mean High Water Position

MHW Position 1.36m OD
- Blue: July 2003
- Red: Oct 2007

SCOPAC - East Solent
Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction
Change in Elevation (m) between Aug 2004 and Apr 2006

ACCRETION No Change EROSION

Model Extent
**Southeast Strategic Regional Coastal Monitoring Programme**

**Annual Report 2008**

**CPU 14 (1 of 2) - Beach Change**

**SCOPAC - East Solent**

### Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **MU boundary**
- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **No Change**
  - Less than 5%
  - 5 - 15%
- **Erosion**
  - 15 - 30%
  - > 30%

**Actual Annual Change in Cross-sectional Area (m²)**

- **5b0326 (4)**
- **5b0350 (-2)**
- **5b0344 (-2)**
- **5b0328 (-6)**
- **5b0332 (-4)**
- **5b0356 (4)**

---

**Southeast Strategic Regional Coastal Monitoring Programme**

**CPU 14 (1 of 2) - Beach Change**

**SCOPAC - East Solent**

**Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)**

- **MU boundary**
- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **No Change**
  - Less than 5%
  - 5 - 15%
- **Erosion**
  - 15 - 30%
  - > 30%

**Actual Annual Change in Cross-sectional Area (m²)**

- **5b0326 (4)**
- **5b0350 (-2)**
- **5b0344 (-2)**
- **5b0328 (-6)**
- **5b0332 (-4)**
- **5b0356 (4)**

---

**Southeast Strategic Regional Coastal Monitoring Programme**

**Annual Report 2008**

**CPU 14 (1 of 2) - Beach Change**

**SCOPAC - East Solent**

**Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)**

- **MU boundary**
- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **No Change**
  - Less than 5%
  - 5 - 15%
- **Erosion**
  - 15 - 30%
  - > 30%

**Actual Annual Change in Cross-sectional Area (m²)**

- **5b0326 (4)**
- **5b0350 (-2)**
- **5b0344 (-2)**
- **5b0328 (-6)**
- **5b0332 (-4)**
- **5b0356 (4)**
Change in Elevation (m) between July 2003 and January 2008

<table>
<thead>
<tr>
<th>Change in Elevation</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;=3</td>
<td>1</td>
</tr>
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<td>2.5-3</td>
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</tr>
<tr>
<td>2-2</td>
<td>3</td>
</tr>
<tr>
<td>1.5-2</td>
<td>4</td>
</tr>
<tr>
<td>1-1.5</td>
<td>5</td>
</tr>
<tr>
<td>0.5-1</td>
<td>6</td>
</tr>
<tr>
<td>0.25-0.5</td>
<td>7</td>
</tr>
<tr>
<td>&lt;=0.25</td>
<td>8</td>
</tr>
<tr>
<td>0.25</td>
<td>9</td>
</tr>
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<td>-0.25-0</td>
<td>10</td>
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<td>-0.5</td>
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</tr>
<tr>
<td>-1</td>
<td>12</td>
</tr>
<tr>
<td>-1.5--1</td>
<td>13</td>
</tr>
<tr>
<td>-2--1.5</td>
<td>14</td>
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<tr>
<td>-2.5--2</td>
<td>15</td>
</tr>
<tr>
<td>&lt;=-3</td>
<td>16</td>
</tr>
</tbody>
</table>

Model Extent

SCOPAC - East Solent
SCOPAC - East Solent

MHW Position 1.36m OD

CPU14 (1 of 2) - Mean High Water Position

Annual Report 2008
### Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Change Type</th>
<th>Percentage Range</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
<td>&gt; 30 %</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>15 - 30 %</td>
<td>Light Blue</td>
</tr>
<tr>
<td></td>
<td>5 - 15 %</td>
<td>Light Blue</td>
</tr>
<tr>
<td>No Change</td>
<td>Less than 5 %</td>
<td>Grey</td>
</tr>
<tr>
<td></td>
<td>5 - 15 %</td>
<td>Grey</td>
</tr>
<tr>
<td></td>
<td>15 - 30 %</td>
<td>Grey</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 %</td>
<td>Grey</td>
</tr>
<tr>
<td>Erosion</td>
<td>&gt; 30 %</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>15 - 30 %</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>5 - 15 %</td>
<td>Red</td>
</tr>
</tbody>
</table>

**Actual Annual Change in Cross-sectional Area (m²)**

- **5g00212 (3)**
- **5b00366 (4)**
- **5b00359 (1)**
- **5b00359 (-1)**
- **5b00371 (3)**
- **5b00350 (-2)**

---

**Southeast Strategic Regional Coastal Monitoring Programme**

**SCOPAC - East Solent**

**CPU 14 (2 of 2) - Beach Change**

**Annual Report 2008**
Annual % Change in Cross-sectional Area (Baseline 2004 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%

**No Change**

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

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

**Annual Report 2008**

**SCOPAC - East Solent**
Change in Elevation (m) between July 2003 and January 2008

Model Extent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Category</th>
<th>&gt; 30 %</th>
<th>15 - 30 %</th>
<th>5 - 15 %</th>
<th>Less than 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MU boundary

Actual Annual Change in Cross-sectional Area (m²)
Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

- Accretion:
  - > 30%
  - 15 - 30%
  - 5 - 15%
- No Change:
  - Less than 5%
  - 5 - 15%
- Erosion:
  - 15 - 30%
  - > 30%

MU boundary

Actual Annual Change in Cross-sectional Area (m²)
Change in Elevation (m) between May 2003 and May 2008

Model Extent

ACCRETION  No Change  EROSION

NET6 (1 of 1) - Topographic Difference Model (2008 - 2003)

SCOPAC - East Solent
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent

Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

NET 5 - Beach Change

SCOPAC - East Solent

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - Less than 5%
  - 15 - 30%
  - > 30%

No Change

**Actual Annual Change in Cross-sectional Area (m²)**

MU boundary

5g00212 (3)

5000036 (9)

5000026 (6)
Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

- Accretion:
  - > 30 %
  - 15 - 30 %
  - 5 - 15 %
  - Less than 5 %
- Erosion:
  - 15 - 30 %
  - > 30 %

MU boundary

Actual Annual Change in Cross-sectional Area (m²)
Change in Elevation (m) between June 2003 and June 2008

ACCRETION No Change EROSION

Model Extent
MHW Position
1.36m OD

±
0 100 200 m

June 2003
June 2007

SCOPAC - East Solent
NET5 - Surface Sediment Distribution (June 2007)
NET5 - Bathymetric Difference Model (2006 - 2004)

SCOPAC - East Solent

Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

Change in Elevation (m) between Jul 2004 and Apr 2006

Model Extent

ACCRETION No Change EROSION
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

NET 4 - Beach Change

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Change Type</th>
<th>&gt; 30 %</th>
<th>15 - 30 %</th>
<th>5 - 15 %</th>
<th>Less than 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

SCOPAC - East Solent
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent

NET 4 - Beach Change

5c00055 (1)

5c00045 (2)

0 100 200 m

Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

<table>
<thead>
<tr>
<th>Type</th>
<th>Change</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>No Change</td>
<td>Less than 5%</td>
</tr>
<tr>
<td></td>
<td>5 - 15%</td>
</tr>
<tr>
<td></td>
<td>15 - 30%</td>
</tr>
<tr>
<td></td>
<td>&gt; 30%</td>
</tr>
<tr>
<td>Erosion</td>
<td>&gt; 30%</td>
</tr>
<tr>
<td></td>
<td>15 - 30%</td>
</tr>
<tr>
<td></td>
<td>5 - 15%</td>
</tr>
<tr>
<td></td>
<td>Less than 5%</td>
</tr>
</tbody>
</table>

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

5g00212 (3)
SCOPAC - East Solent

NET4 - Mean High Water Position

MHW Position 1.36m OD
- July 2003
- April 2008
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent

Sediment Type
- Gravel
- Gravel & Sand
- Sand
- Boulders
- Dune
- Grass
- Gravel & Mud
- Mud
- Mud & Sand
- Rock
- Saltmarsh
- Sea Defence
- Shell
- Water body
- Mixture
- Obstruction

NET4 - Surface Sediment Distribution (April 2008)
Southeast Strategic Regional Coastal Monitoring Programme

Change in Elevation (m) between Jul 2004 and Apr 2006

Model Extent

NET4 - Bathymetric Difference Model (2006 - 2004)

SCOPAC - East Solent
Southeast Strategic Regional Coastal Monitoring Programme

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

- **Accretion**:
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**:
  - > 30%
  - 15 - 30%
  - 5 - 15%

**No Change**:
- Less than 5%

*Actual Annual Change in Cross-sectional Area (m²)*

**MU boundary**

**5g00212 (3)**

**0 100 200 m**

NET 3 - Beach Change

SCOPAC - East Solent
Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

<table>
<thead>
<tr>
<th></th>
<th>&gt; 30 %</th>
<th>15 - 30 %</th>
<th>5 - 15 %</th>
<th>Less than 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Change</td>
<td>Less than 5 %</td>
<td>5 - 15 %</td>
<td>15 - 30 %</td>
<td>&gt; 30 %</td>
</tr>
</tbody>
</table>

Actual Annual Change in Cross-sectional Area (m$^2$)

MU boundary

5g00212 (3)

5c00076 (1)

5c00065 (0)
Change in Elevation (m) between July 2003 and April 2008

Model Extent

1. Model Extent
2. Change in Elevation (m)
   - >=3
   - 2.5-3
   - 2-2.5
   - 1.5-2
   - 1-1.5
   - 0.5-1
   - 0.25-0.5
   - -0.25-0
   - -0.5--0.25
   - -1--0.5
   - -1.5--1
   - -2--1.5
   - -2.5--2
   - -3--2.5
   - <=-3

3. ACCRETION
4. No Change
5. EROSION
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

NET 2 - Beach Change

SCOPAC - East Solent

Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Type</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accretion</td>
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</tr>
<tr>
<td></td>
<td>15 - 30 %</td>
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<td></td>
<td>5 - 15 %</td>
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<td>No Change</td>
<td>Less than 5 %</td>
</tr>
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<td></td>
<td>5 - 15 %</td>
</tr>
<tr>
<td>Erosion</td>
<td>15 - 30 %</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 %</td>
</tr>
</tbody>
</table>

Actual Annual Change in Cross-sectional Area (m²)

MU boundary

5c00100 (-1)

5c00089 (1)
### Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>&gt; 30 %</th>
<th>15 - 30 %</th>
<th>5 - 15 %</th>
<th>Less than 5 %</th>
<th>5 - 15 %</th>
<th>15 - 30 %</th>
<th>&gt; 30 %</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Erosion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No Change</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

**NET 2 - Beach Change**
Change in Elevation (m) between July 2003 and July 2007

ACCRETION  No Change  EROSION

Model Extent
Annual % Change in Cross-sectional Area (Spring 2007 to Spring 2008)

<table>
<thead>
<tr>
<th>Change</th>
<th>Symbol</th>
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<tbody>
<tr>
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<td>15 - 30 %</td>
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<tr>
<td></td>
<td>5 - 15 %</td>
</tr>
<tr>
<td>No Change</td>
<td>Less than 5 %</td>
</tr>
<tr>
<td></td>
<td>5 - 15 %</td>
</tr>
<tr>
<td>Erosion</td>
<td>15 - 30 %</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 %</td>
</tr>
</tbody>
</table>

MU boundary

Actual Annual Change in Cross-sectional Area (m²)

0 100 200 m
Southeast Strategic Regional Coastal Monitoring Programme

Annual Report 2008

SCOPAC - East Solent

**Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)**

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
- **Erosion**
  - > 30%
  - 15 - 30%
  - 5 - 15%

- **No Change**
  - Less than 5%

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

0 100 200 m
Change in Elevation (m) between Feb 2003 and March 2008

-3, -2.5, -2, -1.5, -1, -0.5, 0, 0.25, 0.5, 1, 1.5, 2, 2.5, 3

Model Extent

ACCRETION No Change EROSION
Annual % Change in Cross-sectional Area (Baseline 2003 to Spring 2008)

- **Accretion**
  - > 30%
  - 15 - 30%
  - 5 - 15%
  - Less than 5%

- **Erosion**
  - 5 - 15%
  - 15 - 30%
  - > 30%

**No Change**
- 5 - 15%
- Less than 5%

**MU boundary**

**Actual Annual Change in Cross-sectional Area (m²)**

Net 1 (2 of 2) - Beach Change

Annual Report 2008

SCOPAC - East Solent
Change in Elevation (m) between Feb 2003 and March 2008

Model Extent
SCOPAC - East Solent

MHW Position
1.36m OD

Feb 2003
Mar 2008
Change in Elevation (m) between Mar 2004 and Apr 2006

Accretion No Change Erosion

Model Extent
EXPLANATORY NOTES

Change in Cross-sectional Area (CSA)

The annual change in cross-sectional area is calculated as the difference in CSA between two surveys, expressed as a percentage change compared to the earlier CSA.

\[
\frac{CSA_1 - CSA_2}{CSA_2} \times 100 \quad \text{Eqn (1)}
\]

where CSA\(_1\) = most recent springtime survey and CSA\(_2\) = spring survey previous year. Therefore an annual change of \(-14\%\) represents erosion during the last year of 14\% of the area of last year’s survey.

Net Sediment Calculation

The value derived from this calculation represents the volume change in m\(^3\) across each individual management unit over time. The initial volumes are derived from the Digital Terrain Models made for consecutive baseline topographic surveys. Both models are clipped to cover the same area, then and a volume above the MLWS plane is calculated for each DTM. The net sediment change is calculated as

\[
\text{Vol}_1 - \text{Vol}_2 \quad \text{Eqn (2)}
\]

where \(\text{Vol}_1\) = most recent DTM model volume and \(\text{Vol}_2\) = earlier DTM model volume. Therefore a net change of \(-19730\text{m}^3\) represents erosion since the earlier survey.

Recycling and Replenishment Information

CPU3: Bracklesham Bay & Selsey

Limited information exists for management activities within this unit especially with respect to re-profiling and recycling activities. Some information does exist for replenishments.

Between September and April, there are always 2 bulldozers on site for re-profiling.

2003/04 - Imported 7,500tn of shingle (40 - 70mm) from the black gate west. The shingle was placed on the back of the defence. Shingle was also won from the bank itself by lowering it from around 6.5m to about 5.25m. The result was a much wider crest and a shallower profile on the front. Sand was seen to be building up the face of the defence for the first time in many years. This allowed the bank to overtop rather than breach.

2004/05 - Imported another 7,500tn of shingle, this time to the windmill end where the gap between the earth and shingle bank was filled. The crest again was slightly lowered. With the remaining shingle filling in half the car park back at the black gate end.
**CPU6 & CPU7: Hayling Frontage**

The following information was provided by Havant Borough Council in the form of recycling maps/tables and has been assimilated here for ease of representation.

### CPU6 & CPU7 DEPOSITION M³

<table>
<thead>
<tr>
<th>Between Groyne No's</th>
<th>Mar 02</th>
<th>Oct 03</th>
<th>Mar 04</th>
<th>Mar 05</th>
<th>Mar 06</th>
<th>Mar 07</th>
<th>Jul 07</th>
<th>Oct 07</th>
<th>Mar 08</th>
<th>Oct 08</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
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### CPU6 & CPU7 DEPOSITION M³

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Profile and CSA Charts for Management Unit CPU3

Cross Sectional Area above MP Trend for Location: 5a00003 [SUSS73] and Reference Profile Set

Area Above MP Trend: Accreting at 0.515 m²/Year

Survey Date

Recycling Event
Area Above MP
Area Trend
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00005 [SUSS72] and Reference Profile Set

Area Above MP Trend: Accreting at 1.020 m²/Year

Survey Date:
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Beach Area (m²):
- 340
- 330
- 320
- 310
- 300
- 290
- 280
- 270
- 260
- 250
- 240
- 230
- 220
- 210
- 200
- 190
- 180
- 170
- 160
- 150
- 140
- 130
- 120
- 110
- 100
- 90
- 80
- 70
- 60
- 50
- 40
- 30
- 20
- 10
- 0
Cross Sectional Area above MP Trend for Location: 5a00010 [SUSS70] and Reference Profile Set

Area Above MP Trend: Accreting at 3.509 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00013 [SUSS69] and Reference Profile Set

Area Above MP Trend: Eroding at -4.340 m²/Year
Beach Profiles: 5a00017

Profile and CSA Charts for Management Unit CPU3
Profile and CSA Charts for Management Unit CPU3

Cross Sectional Area above MP Trend for Location: 5a00021 [SUSS66] and Reference Profile Set

Area Above MP Trend: Accreting at 1.613 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00025 [SUSS65] and Reference Profile Set

Area Above MP Trend: Eroding at -5.189 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00031 [SUSS63] and Reference Profile Set

Area Above MP Trend: Eroding at -15.491 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00034 [SUSS62] and Reference Profile Set

Area Above MP Trend: Eroding at −12.700 m²/Year

Survey Date

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Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Profile and CSA Charts for Management Unit CPU3

Beach Profiles: 5a00037

Chainage (m)

Level (m)

Cross Sectional Area above MP Trend for Location: 5a00037 [SUSS61] and Reference Profile Set

Area Above MP Trend: Eroding at -13.184 m²/Year

Survey Date

Recycling Event | Area Above MP | Area Trend | Area Between MP & DP
Cross Sectional Area above MP Trend for Location: Suss59 and Reference Profile Set

Area Above MP Trend: Eroding at -20.427 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00052 [SUSS56] and Reference Profile Set

Area Above MP Trend: Accreting at 0.657 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00055 [SUSS55] and Reference Profile Set

Area Above MP Trend: Accreting at 2.579 m²/Year
Beach Profiles: 5a00058

Profile and CSA Charts for Management Unit CPU3
Cross Sectional Area above MP Trend for Location: 5a00058 [SUSS53] and Reference Profile Set

Area Above MP Trend: Eroding at -5.840 m²/Year

Survey Date:

- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Yellow: Area Between MP & DP
- Green: Area Above MP
- Green: Area Trend
Cross Sectional Area above MP Trend for Location: 5a00064 [SUSS51] and Reference Profile Set

Area Above MP Trend: Accreting at 2.748 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00067 [SUSS50] and Reference Profile Set

Area Above MP Trend: Eroding at -1.608 m²/Year

Survey Date

Recycling Event
Area Above MP
Area Trend
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: Sa00070 [SUSS49] and Reference Profile Set

Area Above MP Trend: Eroding at -7.867 m²/Year

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP

Survey Date:
Cross Sectional Area above MP Trend for Location: 5a00073 [SUSS48] and Reference Profile Set

Area Above MP Trend: Eroding at -0.986 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00082 [SUSS45] and Reference Profile Set

Area Above MP Trend: Accreting at 1.423 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00085 [SUSS44] and Reference Profile Set

Area Above MP Trend: Accreting at 4.498 m²/Year
Area Above MP Trend: Accreting at 0.435 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00103 [SUSS38] and Reference Profile Set

Area Above MP Trend: Accreting at 2.142 m²/Year
Profile and CSA Charts for Management Unit CPU4

Cross Sectional Area above MP Trend for Location: 5a00106 [SUSS37] and Reference Profile Set

Area Above MP Trend: Eroding at -0.381 m²/Year

Survey Date

Recycling Event
Area Above MP
Area Trend
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00111 [SUSS35] and Reference Profile Set

Area Above MP Trend: Accreting at 2.288 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00116 [SUSS33] and Reference Profile Set

Area Above MP Trend: Eroding at -1.579 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Beach Profiles: 5a00119

Profile and CSA Charts for Management Unit CPU4
Profile and CSA Charts for Management Unit CPU4

Cross Sectional Area above MP Trend for Location: 5a00119 [SUSS32] and Reference Profile Set

Area Above MP Trend: Accreting at 24.955 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00125 [SUSS30] and Reference Profile Set

Area Above MP Trend: Accreting at 1.973 m²/Year
Profile and CSA Charts for Management Unit CPU4

Cross Sectional Area above MP Trend for Location: 5a00128 [SUSS29] and Reference Profile Set

Area Above MP Trend: Eroding at -2.965 m²/Year

Survey Date

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00131 [SUSS28] and Reference Profile Set

Area Above MP Trend: Accreting at 0.691 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Profile and CSA Charts for Management Unit CPU4

Cross Sectional Area above MP Trend for Location: 5a00139 [SUSS25] and Reference Profile Set

Area Above MP Trend: Eroding at -8.711 m²/Year

Survey Date


Beach Area (m²)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00145 [SUSS23] and Reference Profile Set

Area Above MP Trend: Eroding at -4.339 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00149 [SUSS22] and Reference Profile Set

Area Above MP Trend: Eroding at -11.932 m²/Year

Survey Date

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00153 [SUSS21] and Reference Profile Set

Area Above MP Trend: Eroding at -0.090 m²/Year

Survey Date:
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00158 [SUSS19] and Reference Profile Set

Area Above MP Trend: Eroding at $-1.358 \text{ m}^2/\text{Year}$

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00162 [SUSS18] and Reference Profile Set

Area Above MP Trend: Eroding at -1.954 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00165 [SUSS17] and Reference Profile Set

Area Above MP Trend: Accreting at 3.198 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00168 [SUSS16] and Reference Profile Set

Area Above MP Trend: Accreting at 5.382 m²/Year

Survey Date


Beach Area (m²)

0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850

Recycling Event Area Above MP Area Trend Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00170 [SUSS15] and Reference Profile Set

Area Above MP Trend: Accreting at 9.911 m²/Year

Survey Date

Beach Area (m²)
0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00179 [SUSS12] and Reference Profile Set

Area Above MP Trend: Accreting at 24.819 m²/Year

Survey Date:

- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007

Beach Area (m²):

- 0
- 50
- 100
- 150
- 200
- 250
- 300
- 350
- 400
- 450
- 500
- 550
- 600
- 650
- 700
- 750
- 800
- 850

Legend:

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Light Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00185 [SUSS10] and Reference Profile Set

Area Above MP Trend: Accreting at 21.581 m²/Year

Survey Date
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Grey: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00189 [SUSS9] and Reference Profile Set

Area Above MP Trend: Accreting at 25.721 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00198 [SUSS6] and Reference Profile Set

Area Above MP Trend: Accreting at 2.181 m²/Year

Survey Date

Area Trend
Area Above MP
Recycling Event
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00201 [SUSS5] and Reference Profile Set

Area Above MP Trend: Accreting at 15.188 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00212 [SUSS2] and Reference Profile Set

Area Above MP Trend: Eroding at -9.920 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Area Above MP Trend: Eroding at -1.973 m²/Year

Survey Date


Beach Area (m²)
Cross Sectional Area above MP Trend for Location: 5a00218 [CH122] and Reference Profile Set

Area Above MP Trend: Accreting at 15.271 m²/Year

Survey Date


Beach Area (m²)

0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850

Recycling Event Area Above MP Area Trend Area Between MP & DP

Profile and CSA Charts for Management Unit CPU5
Cross Sectional Area above MP Trend for Location: 5a00218A [CHI22A] and Reference Profile Set

Area Above MP Trend: Accreting at 6.843 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00219A [CH121A] and Reference Profile Set

Area Above MP Trend: Accreting at 11.204 m²/Year

Survey Date

Graph showing cross-sectional area above MP over time with specific trend information.
Cross Sectional Area above MP Trend for Location: 5a00220 [CH120] and Reference Profile Set

Area Above MP Trend: Accreting at 13.571 m²/Year

Survey Date


Area Area Above MP

Recycling Event Area Between MP & DP

Area Trend
Cross Sectional Area above MP Trend for Location: 5a00220A [CH120A] and Reference Profile Set

Area Above MP Trend: Accreting at 188.617 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00221 [CHI19] and Reference Profile Set

Area Above MP Trend: Accreting at 71.987 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00225 [CHI15] and Reference Profile Set

Area Above MP Trend: Accreting at 8.329 m²/Year
Profile and CSA Charts for Management Unit CPU5

Cross Sectional Area above MP Trend for Location: 5a00229 [CHI/11] and Reference Profile Set

Area Above MP Trend: Eroding at -0.336 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00233 [CH17] and Reference Profile Set

Area Above MP Trend: Accreting at 16.335 m²/Year
Beach Profiles: 5a00235
Cross Sectional Area above MP Trend for Location: 5a00235 [CH15] and Reference Profile Set

Area Above MP Trend: Accreting at 40.161 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00241 [HAV134] and Reference Profile Set

Area Above MP Trend: Accreting at 2.536 m²/Year

Survey Date:
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Chart details:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00243 [HAV132] and Reference Profile Set

Area Above MP Trend: Accreting at 4.575 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00245 [HAV130] and Reference Profile Set

Area Above MP Trend: Accreting at 1.229 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00247 [HAV128] and Reference Profile Set

Area Above MP Trend: Accreting at 1.685 m²/Year

Survey Date:
- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/05/2005
- 19/02/2006
- 18/08/2007
- 17/02/2008
- 18/08/2007
- 16/02/2008
Cross Sectional Area above MP Trend for Location: 5a00249 [HAV126] and Reference Profile Set

Area Above MP Trend: Accreting at 1.508 m²/Year

Survey Date


Beach Area (m²)

124.2 124.4 124.6 124.8 125.0 125.2 125.4 125.6 125.8 126.0 126.2 126.4 126.6 126.8 127.0 127.2 127.4 127.6 127.8 128.0 128.2 128.4 128.6 128.8 129.0 129.2 129.4 129.6 129.8 130.0 130.2 130.4 130.6 130.8 131.0 131.2 131.4 131.6 131.8 132.0 132.2
Cross Sectional Area above MP Trend for Location: 5a00251 [HAV124] and Reference Profile Set

Area Above MP Trend: Accreting at 2.543 m^2/Year

Survey Date

Beach Area (m^2)
166
165.5
165
164.5
164
163.5
163
162.5
162
161.5
161
160.5
160
159.5
159
158.5
158
157.5
157
156.5
156
155.5
155
154.5
154

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Profile and CSA Charts for Management Unit CPU6

Cross Sectional Area above MP Trend for Location: 5a00253 [HAMP994] and Reference Profile Set

Area Above MP Trend: Accreting at 1.358 m²/Year

Survey Date


Beach Area (m²)

139.5 139 140 140.5 141 141.5 142 142.5 143 143.5 144 144.5 145 145.5 146 146.5 147 147.5 148 148.5 149 149.5
Cross Sectional Area above MP Trend for Location: 5a00254 [HAV122] and Reference Profile Set

Area Above MP Trend: Accreting at 4.850 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00258 [HAV118] and Reference Profile Set

Area Above MP Trend: Accreting at 4.124 m²/Year
Profile and CSA Charts for Management Unit CPU6

Cross Sectional Area above MP Trend for Location: 5a00260 [HAMP993] and Reference Profile Set

Area Above MP Trend: Accreting at 9.999 m²/Year

Survey Date:
- 07/12/1993
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Beach Area (m²):
- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- 100
- 110
- 120
- 130
- 140
- 150
- 160
- 170
- 180
- 190
- 200
- 210
- 220
- 230
- 240
- 250

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Solid Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00262 [HAV115] and Reference Profile Set

Area Above MP Trend: Accreting at 11.502 m²/Year

Survey Date:
07/12/1993 to 04/12/2007

Legend:
- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00264 [HAMP992] and Reference Profile Set

Area Above MP Trend: Accreting at 2.429 m²/Year
Profile and CSA Charts for Management Unit CPU6

Cross Sectional Area above MP Trend for Location: 5a00266a [HAV111a] and Reference Profile Set

Area Above MP Trend: Accreting at 13.818 m²/Year

Survey Date

- 07/12/1993
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Beach Area (m²)

- 400
- 390
- 380
- 370
- 360
- 350
- 340
- 330
- 320
- 310
- 300
- 290
- 280
- 270
- 260
- 250
- 240
- 230
- 220
- 210
- 200
- 190
- 180
- 170
- 160
- 150
- 140
- 130
- 120
- 110
- 100
- 90
- 80
- 70
- 60
- 50
- 40
- 30
- 20
- 10
- 0

Recycling Event
Area Above MP
Area Trend
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00270 [HAMP990] and Reference Profile Set

Area Above MP Trend: Accreting at 5.231 m²/Year

Survey Date:
- 07/12/1993
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Graph Details:
- Yellow: Recycling Event
- Green: Area Above MP
- Green Trend Line: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00273 [HAMP1999] and Reference Profile Set

Area Above MP Trend: Accreting at 3.193 m²/Year

Survey Date:
- 07/12/1993
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Key:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00276 [HAMP988] and Reference Profile Set

Area Above MP Trend: Eroding at -0.371 m2/Year

Survey Date:

- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Key:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00279 [HAMP987] and Reference Profile Set

Area Above MP Trend: Accreting at 0.251 m²/Year

Survey Date:
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green with checkmark: Area Trend
- Blue with checkmark: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00281 [HAMP986] and Reference Profile Set

Area Above MP Trend: Eroding at -1.790 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green Trend: Area Trend
- Blue: Area Between MP & DP
Area Above MP Trend: Eroding at -1.919 m²/Year

Survey Date:
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Key:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00289 [HAMP983] and Reference Profile Set

Area Above MP Trend: Erodng at -1.641 m²/Year

Survey Date

06/12/1997 06/12/1999 05/12/2001 05/12/2003 04/12/2005 04/12/2007

Area Above MP
Area Trend
Area Between MP & DP

Recycling Event
Cross Sectional Area above MP Trend for Location: 5a00292 [HAMP982] and Reference Profile Set

Area Above MP Trend: Eroding at -3.013 m²/Year

Survey Date:
- 06/12/1999
- 05/12/2000
- 05/12/2001
- 05/12/2002
- 05/12/2003
- 04/12/2004
- 04/12/2005
- 04/12/2006
- 04/12/2007

Beach Area (m²):
- 300
- 290
- 280
- 270
- 260
- 250
- 240
- 230
- 220
- 210
- 200
- 190
- 180
- 170
- 160
- 150
- 140
- 130
- 120
- 110
- 100
- 90
- 80
- 70
- 60
- 50
- 40
- 30
- 20
- 10
- 0

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00295 [HAMP981] and Reference Profile Set

Area Above MP Trend: Eroding at ~3.500 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00298 [HAMP980] and Reference Profile Set

Area Above MP Trend: Eroding at -5.948 m²/Year

Survey Date

07/12/1993 07/12/1995 06/12/1997 06/12/1999 05/12/2001 05/12/2003 04/12/2005 04/12/2007

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00301 [HAMP979] and Reference Profile Set

Area Above MP Trend: Eroding at -4.859 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00304 [HAMP978] and Reference Profile Set

Area Above MP Trend: Accreting at 2.601 m²/Year

Survey Date:
- 07/12/1993
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Legend:
- **Yellow**: Recycling Event
- **Green**: Area Above MP
- **Green**: Area Trend
- **Blue**: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00306 [HAV86] and Reference Profile Set

Area Above MP Trend: Accreting at 0.266 m²/Year

Survey Date
07/12/1995 06/12/1997 06/12/1999 05/12/2001 05/12/2003 04/12/2005 04/12/2007

Beach Area (m²)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Profile and CSA Charts for Management Unit CPU6

Cross Sectional Area above MP Trend for Location: 5a00310 [HAMP976] and Reference Profile Set

Area Above MP Trend: Accreting at 2.990 m²/Year

Survey Date:
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green Dash: Area Trend
- Blue Dash: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00313 [HAMP975] and Reference Profile Set

Area Above MP Trend: Accreting at 5.080 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Profile and CSA Charts for Management Unit CPU6

Cross Sectional Area above MP Trend for Location: 5a00315 [HAV80] and Reference Profile Set

Area Above MP Trend: Accreting at 5.337 m²/Year

Survey Date

- 10/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2006
- 04/12/2007

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00316 [HAMP974] and Reference Profile Set

Area Above MP Trend: Accreting at 3.762 m²/Year

Survey Date:

07/12/1993 07/12/1995 06/12/1997 06/12/1999 05/12/2001 05/12/2003 04/12/2005 04/12/2007

-60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60

Beach Area (m²)

- Recycling Event - Area Above MP - Area Trend - Area Between MP & DP

Profile and CSA Charts for Management Unit CPU6
Cross Sectional Area above MP Trend for Location: 5a00319 [HAMP973] and Reference Profile Set

Area Above MP Trend: Accretion at 21.162 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00324 [HAMP972] and Reference Profile Set

Area Above MP Trend: Accreting at 1.396 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00325 [HAV73] and Reference Profile Set

Area Above MP Trend: Eroding at -0.187 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00327 [HAMP971] and Reference Profile Set

Area Above MP Trend: Eroding at -1.082 m²/Year

Survey Date

Beach Area (m²)
-20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

- Recycling Event - Area Above MP - Area Trend - Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00330 [HAV69] and Reference Profile Set

Area Above MP Trend: Eroding at -0.143 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00332 [HAMP970] and Reference Profile Set

Area Above MP Trend: Accreting at 1.482 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00334 [HAV66] and Reference Profile Set

Area Above MP Trend: Eroding at -0.963 m²/Year

Survey Date:

- Ø7/12/1993
- Ø7/12/1995
- Ø6/12/1997
- Ø6/12/1999
- Ø5/12/2001
- Ø5/12/2003
- Ø4/12/2005
- Ø4/12/2007

Beach Area (m²):

- Ø360
- Ø350
- Ø340
- Ø330
- Ø320
- Ø310
- Ø300
- Ø290
- Ø280
- Ø270
- Ø260
- Ø250
- Ø240
- Ø230
- Ø220
- Ø210
- Ø200
- Ø190
- Ø180
- Ø170
- Ø160
- Ø150
- Ø140
- Ø130
- Ø120
- Ø110
- Ø100
- Ø90
- Ø80
- Ø70
- Ø60
- Ø50
- Ø40
- Ø30
- Ø20
- Ø10
- Ø0
- Ø-10
- Ø-20
Cross Sectional Area above MP Trend for Location: 5a00336 [HAV64] and Reference Profile Set

Area Above MP Trend: Eroding at -1.424 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00338 [HAMP969] and Reference Profile Set

Area Above MP Trend: Eroding at -1.691 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00340 [HAV61] and Reference Profile Set

Area Above MP Trend: Eroding at -3.049 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00342 [HAV59] and Reference Profile Set

Area Above MP Trend: Eroding at -8.830 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00344 [HAV57] and Reference Profile Set

Area Above MP Trend: Eroding at -7.975 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00346 [HAMP968] and Reference Profile Set

Area Above MP Trend: Eroding at -8.366 m²/Year

Survey Date:
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Beach Profiles: 5a00348

Profile and CSA Charts for Management Unit CPU6
Cross Sectional Area above MP Trend for Location: 5a00348 [HAV54] and Reference Profile Set

Area Above MP Trend: Eroding at -6.463 m²/Year

Survey Date:
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Beach Profiles: 5a00350

Profile and CSA Charts for Management Unit CPU6
Cross Sectional Area above MP Trend for Location: 5a00354 [HAMP967] and Reference Profile Set

Area Above MP Trend: Eroding at -1.252 m²/Year

Survey Date:
- 07/12/1995
- 06/12/1997
- 06/12/1999
- 05/12/2001
- 05/12/2003
- 04/12/2005
- 04/12/2007

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green Line: Area Trend
- Blue Line: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00359 [HAMP965] and Reference Profile Set

Area Above MP Trend: Accreting at 2.912 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00364A [HAMP963a] and Reference Profile Set

Area Above MP Trend: Eroding at -6.713 m²/Year

Survey Date

Beach Area (m²)

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00369 [HAMP962] and Reference Profile Set

Area Above MP Trend: Eroding at -6.355 m²/Year

Survey Date

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480

Beach Area (m²)

Recycling Event
Area Above MP
Area Trend
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00373 [HAMP961] and Reference Profile Set

Area Above MP Trend: Eroding at -11.740 m²/Year

Survey Date

Beach Area (m²)

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00376 [HAMP960] and Reference Profile Set

Area Above MP Trend: Eroding at -13.205 m²/Year
Cross sectional area above MP trend for location: 5a00381 [HAV30] and Reference profile set

Area above MP trend: Accreting at 39.998 m²/year
Cross Sectional Area above MP Trend for Location: 5a00383 [HAV28] and Reference Profile Set

Area Above MP Trend: Accreting at 37.197 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00385 [HAMP958] and Reference Profile Set

Area Above MP Trend: Accreting at 15.513 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00386 [HAV26] and Reference Profile Set

Area Above MP Trend: Accreting at 18.918 m²/Year

Survey Date

Area Above MP
Area Trend
Area Between MP & DP
Recycling Event
Cross Sectional Area above MP Trend for Location: 5a00388 [HAV24] and Reference Profile Set

Area Above MP Trend: Accreting at 10.627 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00391 [HAV21] and Reference Profile Set

Area Above MP Trend: Eroding at -15.047 m²/Year

Survey Date


Beach Area (m²)

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00394 [HAV18] and Reference Profile Set

Area Above MP Trend: Accreting at 15.890 m²/Year
Profile and CSA Charts for Management Unit CPU7

Cross Sectional Area above MP Trend for Location: 5a00396 [HAV16] and Reference Profile Set

Area Above MP Trend: Accreting at 9.054 m²/Year

Survey Date

Beach Area (m²)

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00403 [HAV9] and Reference Profile Set

Area Above MP Trend: Accreting at 1.999 m²/Year
Cross sectional area above MP trend for location: 5a00406 [HAV6] and reference profile set.

Area above MP trend: Eroding at -2.438 m²/year.
Cross Sectional Area above MP Trend for Location: 5a00409 [HAV3] and Reference Profile Set

Area Above MP Trend: Accreting at 2.439 m²/Year
Profile and CSA Charts for Management Unit CPU8

Cross Sectional Area above MP Trend for Location: 5a00414 [POR90] and Reference Profile Set

Area Above MP Trend: Eroding at -0.251 m²/Year

Survey Date

Beach Area (m²)

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00423 [HAMP756] and Reference Profile Set

Area Above MP Trend: Eroding at -1.307 m²/Year

Survey Date:

- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00426 [HAMP755] and Reference Profile Set

Area Above MP Trend: Eroding at -5.884 m²/Year

Survey Date

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680

Beach Area (m²)
Area Above MP Trend: Accreting at 6.163 m²/Year

Survey Date


Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00433 [HAMP749] and Reference Profile Set

Area Above MP Trend: Eroding at -2.095 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00437 [HAMP745] and Reference Profile Set

Area Above MP Trend: Accreting at 1.364 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00442 [HAMP742] and Reference Profile Set

Area Above MP Trend: Eroding at -12.062 m²/Year

Survey Date:
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 19/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007

Legend:
- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00448 [HAMP740] and Reference Profile Set

Area Above MP Trend: Accreting at 1.079 m²/Year

Survey Date

- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007

Chart details:
- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP

SAHIDS
Cross Sectional Area above MP Trend for Location: 5a00451 [HAMP739] and Reference Profile Set

Area Above MP Trend: Accreting at 3.311 m2/Year
Cross Sectional Area above MP Trend for Location: 5a00461 [POR66] and Reference Profile Set

Area Above MP Trend: Eroding at -5.510 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00464 [HAMP735] and Reference Profile Set

Area Above MP Trend: Accreting at 3.230 m²/Year

Survey Date:
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007

Beach Area (m²):
- 380
- 360
- 340
- 320
- 300
- 280
- 260
- 240
- 220
- 200
- 180
- 160
- 140
- 120
- 100
- 80
- 60
- 40
- 20
- 0

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00470 [HAMP733] and Reference Profile Set

Area Above MP Trend: Accreting at 7.014 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00477 [HAMP731] and Reference Profile Set

Area Above MP Trend: Accreting at 7.872 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00480 [HAMP730] and Reference Profile Set

Area Above MP Trend: Accreting at 5.524 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00483 [HAMP729] and Reference Profile Set

Area Above MP Trend: Accreting at 2.620 m²/Year
Beach Profiles: 5a00492

Profile and CSA Charts for Management Unit CPU8
Cross Sectional Area above MP Trend for Location: 5a00492 [HAMP726] and Reference Profile Set

Area Above MP Trend: Eroding at -1.718 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00495 [HAMP725] and Reference Profile Set

Area Above MP Trend: Accreting at 0.917 m^2/Year
Cross Sectional Area above MP Trend for Location: 5a00499 [POR40] and Reference Profile Set

Area Above MP Trend: Accreting at 7.657 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00502 [HAMP722] and Reference Profile Set

Area Above MP Trend: Accreting at 3.283 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00504 [POR37] and Reference Profile Set

Area Above MP Trend: Eroding at -3.819 m²/Year

Survey Date:

Beach Area (m²):
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00506 [POR36] and Reference Profile Set

Area Above MP Trend: Eroding at -1.399 m²/Year

Survey Date:
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 20/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
Cross Sectional Area above MP Trend for Location: 5a00509 [POR34] and Reference Profile Set

Area Above MP Trend: Eroding at -6.022 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00512 [POR32] and Reference Profile Set

Area Above MP Trend: Eroding at -6.258 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00529 [POR21] and Reference Profile Set

Area Above MP Trend: Eroding at -0.589 m²/Year

Survey Date:

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00535 (POR17) and Reference Profile Set

Area Above MP Trend: Eroding at -0.139 m²/Year

Survey Date:
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Beach Area (m²):
- 210
- 205
- 200
- 195
- 190
- 185
- 180
- 175
- 170
- 165
- 160
- 155
- 150
- 145
- 140
- 135
- 130
- 125
- 120
- 115
- 110
- 105
- 100
- 95
- 90
- 85
- 80
- 75
- 70
- 65
- 60
- 55
- 50
- 45
- 40
- 35
- 30
- 25
- 20
- 15
- 10
- 5
- 0
Cross Sectional Area above MP Trend for Location: 5a00539 [POR14] and Reference Profile Set

Area Above MP Trend: Eroding at -4.474 m^2/Year

Survey Date

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210

Beach Area (m^2)
Cross Sectional Area above MP Trend for Location: 5b00059 [HAMP647] and Reference Profile Set

Area Above MP Trend: Accreting at 1.796 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00066 [HAMP646] and Reference Profile Set

Area Above MP Trend: Eroding at -1.701 m²/Year

Survey Date:

- Yellow: Recycling Event
- Green: Area Above MP
- Green Dash: Area Trend
- Blue Dash: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00072 [HAMP644] and Reference Profile Set

Area Above MP Trend: Accreting at 0.923 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00076 [HAMP643] and Reference Profile Set

Area Above MP Trend: Eroding at -2.702 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00096 [HAMP637] and Reference Profile Set

Area Above MP Trend: Accreting at 1.118 m²/Year

Survey Date:

- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 19/02/2006
- 18/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Key:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Area Above MP Trend: Accreting at 1.888 m²/Year

Survey Date:

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Profile and CSA Charts for Management Unit CPU11

Cross Sectional Area above MP Trend for Location: 5b00115 [HAMP631] and Reference Profile Set

Area Above MP Trend: Eroding at -0.179 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00129 [HAMP626] and Reference Profile Set

Area Above MP Trend: Accreting at 6.928 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Area Above MP Trend: Eroding at -0.476 m²/Year
Profile and CSA Charts for Management Unit CPU11

Cross Sectional Area above MP Trend for Location: 5b00148 [HAMP620] and Reference Profile Set

Area Above MP Trend: Eroding at -0.754 m²/Year

Survey Date

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320


Recycling Event Area Above MP Area Trend Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00154 [HAMP618] and Reference Profile Set

Area Above MP Trend: Accreting at 6.139 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00160 [HAMP616] and Reference Profile Set

Area Above MP Trend: Eroding at -1.521 m²/Year
Beach Profiles: 5b00166
Cross Sectional Area above MP Trend for Location: 5b00166 [HAMP614] and Reference Profile Set

Area Above MP Trend: Eroding at -0.407 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00169 [HAMP613] and Reference Profile Set

Area Above MP Trend: Eroding at -2.560 m²/Year

Survey Date:

- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00172 [HAMP612] and Reference Profile Set

Area Above MP Trend: Accreting at 2.302 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP

Profile and CSA Charts for Management Unit CPU12
Cross Sectional Area above MP Trend for Location: 5b00175 [HAMP611] and Reference Profile Set

Area Above MP Trend: Accreting at 3.054 m²/Year

Survey Date:
Cross Sectional Area above MP Trend for Location: 5b00178 [HAMP610] and Reference Profile Set

Area Above MP Trend: Accreting at 0.318 m²/Year
Profile and CSA Charts for Management Unit CPU12

Cross Sectional Area above MP Trend for Location: 5b00181 [HAMP609] and Reference Profile Set

Area Above MP Trend: Eroding at -1.990 m²/Year

Survey Date

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

Beach Area (m²)

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00184 [HAMP608] and Reference Profile Set

Area Above MP Trend: Eroding at -4.529 m²/Year

Survey Date:
- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 19/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Profile and CSA Charts for Management Unit CPU12

Cross Sectional Area above MP Trend for Location: 5b00187 [HAMP607] and Reference Profile Set

Area Above MP Trend: Eroding at -2.808 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00190 [HAMP606] and Reference Profile Set

Area Above MP Trend: Accreting at 0.272 m²/Year

Survey Date


Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP

SAHDS
Profile and CSA Charts for Management Unit CPU12

Cross Sectional Area above MP Trend for Location: 5b00193 [HAMP605] and Reference Profile Set

Area Above MP Trend: Eroding at -1.643 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Light Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00196 [HAMP604] and Reference Profile Set

Area Above MP Trend: Eroding at -0.444 m²/Year

- Yellow: Recycling Event
- Green: Area Above MP
- Dark Green: Area Trend
- Blue: Area Between MP & DP

Survey Date:
23/08/2003 to 16/02/2008
Cross Sectional Area above MP Trend for Location: 5b00199 [HAMP603] and Reference Profile Set

Area Above MP Trend: Eroding at -1.701 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00202 [HAMP602] and Reference Profile Set

Area Above MP Trend: Accreting at 0.092 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00205 [HAMP601] and Reference Profile Set

Area Above MP Trend: Accreting at 1.417 m²/Year

Survey Date:

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Deep Green: Area Trend
- Light Blue: Area Between MP & DP
Profile and CSA Charts for Management Unit CPU12

Cross Sectional Area above MP Trend for Location: 5b00208 [HAMP600] and Reference Profile Set

Area Above MP Trend: Accreting at 0.325 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Profile and CSA Charts for Management Unit CPU12

Cross Sectional Area above MP Trend for Location: 5b00212 [HAMP553] and Reference Profile Set

Area Above MP Trend: Eroding at -0.805 m²/Year

Survey Date

- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Beach Area (m²)

- 120
- 110
- 100
- 90
- 80
- 70
- 60
- 50
- 40
- 30
- 20
- 10
- 0

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00233A [FAR98A] and Reference Profile Set

Area Above MP Trend: Accreting at 1.640 m²/Year

Survey Date


Area Above MP
Area Trend
Recycling Event
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00234 [HAMP545] and Reference Profile Set

Area Above MP Trend: Accreting at 1.520 m²/Year
Beach Profiles: 5b00240

Chainage (m) vs. Level (m) chart showing various profiles and their chainages.
Cross Sectional Area above MP Trend for Location: 5b00240 [HAMP543] and Reference Profile Set

Area Above MP Trend: Accreting at 0.423 m²/Year

Survey Date:
- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00241 [FAR93] and Reference Profile Set

Area Above MP Trend: Eroding at -0.120 m²/Year

Survey Date


Beach Area (m²)

0  10  20  30  40  50  60  70  80  90  100  110  120  130  140  150  160  170  180  190  200  210  220  230  240  250
Cross Sectional Area above MP Trend for Location: 5b00242 (FAR92) and Reference Profile Set

Area Above MP Trend: Eroding at -1.059 m²/Year

Survey Date

Beach Area (m²)

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00243 [HAMP542] and Reference Profile Set

Area Above MP Trend: Eroding at -0.002 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00244 [FAR91] and Reference Profile Set

Area Above MP Trend: Accreting at 1.494 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00245 [HAMP541] and Reference Profile Set

Area Above MP Trend: Accreting at 1.791 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00246 [FAR90] and Reference Profile Set

Area Above MP Trend: Accreting at 2.039 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00248 [FAR89] and Reference Profile Set

Area Above MP Trend: Accreting at 1.632 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00251 [HAMP538] and Reference Profile Set

Area Above MP Trend: Accreting at 1.148 m²/Year
Beach Profiles: 5b00255

Profile and CSA Charts for Management Unit CPU13
Profile and CSA Charts for Management Unit CPU13

Cross Sectional Area above MP Trend for Location: 5b00255 [HAMP536] and Reference Profile Set

Area Above MP Trend: Eroding at -0.851 m²/Year

Survey Date

- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 17/02/2007
- 16/02/2008

Beach Area (m²)

- 0
- 5
- 10
- 15
- 20
- 25
- 30
- 35
- 40
- 45
- 50
- 55
- 60
- 65
- 70
- 75
- 80
- 85
- 90
- 95
- 100
- 105
- 110
- 115
- 120
- 125
- 130
- 135
- 140
- 145
- 150
- 155
- 160
- 165
- 170

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00264 [HAMP531] and Reference Profile Set

Area Above MP Trend: Accreting at 1.466 m²/Year

Survey Date:

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00278 [HAMP526] and Reference Profile Set

Area Above MP Trend: Accreting at 1.907 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP

Profile and CSA Charts for Management Unit CPU13
Cross Sectional Area above MP Trend for Location: 5b00284 [HAMP524] and Reference Profile Set

Area Above MP Trend: Eroding at -0.045 m²/Year

Survey Date:

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Profile and CSA Charts for Management Unit CPU13

Cross Sectional Area above MP Trend for Location: 5b00287 [HAMP523] and Reference Profile Set

Area Above MP Trend: Accreting at 0.203 m²/Year

Survey Date:
- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 21/08/2005
- 19/08/2006
- 18/08/2006
- 17/02/2007
- 16/08/2007
- 16/02/2008
Cross Sectional Area above MP Trend for Location: 5b00293 [HAMP521] and Reference Profile Set

Area Above MP Trend: Eroding at -0.798 m²/Year

Survey Date

[Graph showing cross-sectional area above MP over time, indicating erosion.]
Cross Sectional Area above MP Trend for Location: 5b00300 [HAMP519] and Reference Profile Set

Area Above MP Trend: Accreting at 0.170 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00307 [HAMP517] and Reference Profile Set

Area Above MP Trend: Accreting at 1.756 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00313 [HAMP515] and Reference Profile Set

Area Above MP Trend: Eroding at -0.398 m²/Year

Survey Date:
- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 16/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00320 [HAMP513] and Reference Profile Set

Area Above MP Trend: Eroding at -1.393 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00332 [HAMP509] and Reference Profile Set

Area Above MP Trend: Accreting at 1.008 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00350 [HAMP503] and Reference Profile Set

Area Above MP Trend: Eroding at -0.952 m²/Year

Survey Date:

Beach Area (m²):
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95

Legend:
- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00356 [HAMP501] and Reference Profile Set

Area Above MP Trend: Accreting at 0.129 m²/Year

Survey Date:

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5b00365 [FAR12] and Reference Profile Set

Area Above MP Trend: Eroding at -0.068 m²/Year
Cross Sectional Area above MP Trend for Location: 5b00371 [FAR6] and Reference Profile Set

Area Above MP Trend: Eroding at -0.560 m²/Year

Survey Date


Beach Area (m²)

0  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411A [NWHI370] and Reference Profile Set

Area Above MP Trend: Accreting at 0.797 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411AA [NWH/130] and Reference Profile Set

Area Above MP Trend: Accreting at 0.005 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411B [NWHI360] and Reference Profile Set

Area Above MP Trend: Accreting at 1.372 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411BB [NWH/120] and Reference Profile Set

Area Above MP Trend: Accreting at 9.500 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411C [NWHI350] and Reference Profile Set

Area Above MP Trend: Accreting at 0.502 m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 10/09/2006
- 09/12/2006
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008
Cross Sectional Area above MP Trend for Location: 5a00411CC [NWH/110] and Reference Profile Set

Area Above MP Trend: Eroding at -0.011 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411D [NWHI340] and Reference Profile Set

Area Above MP Trend: Accreting at 0.672 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411DD [NWHI100] and Reference Profile Set

Area Above MP Trend: Eroding at -0.300 m²/Year

Survey Date


Survey Dates and Area Above MP Values

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411E [NWHI330] and Reference Profile Set

Area Above MP Trend: Accreting at 0.251 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411EE [NWHI90] and Reference Profile Set

Area Above MP Trend: Eroding at -1.607 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411F [NWHI320] and Reference Profile Set

Area Above MP Trend: Accreting at 1.467 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411FF [NWHI80] and Reference Profile Set

Area Above MP Trend: Eroding at -0.447 m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 09/12/2006
- 03/03/2007
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411G [NWHI310] and Reference Profile Set

Area Above MP Trend: Accreting at 1.189 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411GG [NWHI70] and Reference Profile Set

Area Above MP Trend: Accreting at 0.036 m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 10/09/2006
- 03/12/2006
- 03/03/2007
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411H [NWHI300] and Reference Profile Set

Area Above MP Trend: Accreting at 2.629 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411HH [NWHI60] and Reference Profile Set

Area Above MP Trend: Eroding at -0.168 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411J [NWI1290] and Reference Profile Set

Area Above MP Trend: Accreting at 0.863 m²/Year

Survey Date

回收事件

区域上方MP

区域趋势

区域之间MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411JJ [NWHI50] and Reference Profile Set

Area Above MP Trend: Accreting at 0.651 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411K [NWHI280] and Reference Profile Set

Area Above MP Trend: Eroding at -0.431 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411KK [NWHI40] and Reference Profile Set

Area Above MP Trend: Eroding at -0.005 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411L [NWHI270] and Reference Profile Set

Area Above MP Trend: Eroding at -3.052m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 10/09/2006
- 09/12/2006
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411LL [NWHI30] and Reference Profile Set

Area Above MP Trend: Accreting at 0.012 m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 10/09/2006
- 09/12/2006
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411M [NWHI260] and Reference Profile Set

Area Above MP Trend: Eroding at -1.794 m²/Year

Survey Date


Beach Area (m²)

121.5 121 120.5 120 119.5 119 118.5 118 117.5 117 116.5 116 115.5 115 114.5 114 113.5 113 112.5 112 111.5 111 110.5 110 109.5 109

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP

SAHDS
Cross Sectional Area above MP Trend for Location: 5a00411MM [NWHI20] and Reference Profile Set

Area Above MP Trend: Eroding at -0.091 m²/Year
Cross Sectional Area above MP Trend for Location:  5a00411N [NWHI250] and Reference Profile Set

Area Above MP Trend: Accreting at 2.381 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411NN [NWHI10] and Reference Profile Set

Area Above MP Trend: Eroding at -0.170 m²/Year
Profile and CSA Charts for Management Unit LANGHbr

Cross Sectional Area above MP Trend for Location: 5a00411P [NWH1240] and Reference Profile Set

Area Above MP Trend: Eroding at -0.130 m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 09/09/2006
- 03/12/2006
- 03/03/2007
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Graph showing the trend in cross-sectional area above the Mean High Water mark (MP) with a trend line indicating erosion and peaks indicating events.
Profile and CSA Charts for Management Unit LANGHbr

Cross Sectional Area above MP Trend for Location: 5a00411Q [NWHI230] and Reference Profile Set

Area Above MP Trend: Eroding at -0.092 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411R [NWHI220] and Reference Profile Set

Area Above MP Trend: Eroding at -0.060 m²/Year

Survey Date:

Beach Area (m²):
36.4 36.5 36.6 36.7 36.8 36.9 37.0 37.1 37.2 37.25 37.3 37.35 37.4 37.45 37.5 37.55 37.6 37.65 37.7 37.75 37.8 37.85 37.9 37.95 38.0 38.05 38.1 38.15 38.2 38.25 38.3 38.35 38.4 38.45 38.5 38.55 38.6 38.65 38.7 38.75 38.8 38.85 38.9 38.95 39.0
Cross Sectional Area above MP Trend for Location: 5a00411S [NWHI210] and Reference Profile Set

Area Above MP Trend: Eroding at -1.912 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411T [NWHI200] and Reference Profile Set

Area Above MP Trend: Accreting at 457.886 m²/Year

Survey Date

- 14/03/2006
- 12/06/2006
- 10/09/2006
- 09/12/2006
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Recycling Event
Area Above MP
Area Trend
Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411U [NWH190] and Reference Profile Set

Area Above MP Trend: Accreting at 0.136 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411W [NWHI170] and Reference Profile Set

Area Above MP Trend: Accreting at 0.678 m²/Year

Survey Date

Beach Area (m²)
16.65 16.7 16.75 16.8 16.85 16.9 16.95 17.0 17.05 17.1 17.15 17.2 17.25 17.3 17.35 17.4 17.45 17.5 17.55 17.6 17.65 17.7 17.75 17.8 17.85 17.9 17.95 18 18.1 18.15 18.2 18.25 18.3 18.35 18.4

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5a00411X [NWHI160] and Reference Profile Set

Area Above MP Trend: Eroding at -0.194 m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 10/09/2006
- 09/12/2006
- 03/12/2007
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Graphical representation showing the trend of area above MP over time with specific dates and eroding rate.
Cross Sectional Area above MP Trend for Location: 5a00411Y (NWHI150) and Reference Profile Set

Area Above MP Trend: Accreting at 0.047 m²/Year
Cross Sectional Area above MP Trend for Location: 5a00411Z [NWHI140] and Reference Profile Set

Area Above MP Trend: Accreting at 0.092 m²/Year

Survey Date:
- 14/03/2006
- 12/06/2006
- 10/09/2006
- 09/12/2006
- 07/06/2007
- 05/09/2007
- 04/12/2007
- 03/03/2008

Graphical representation showing area above MP trend over time.
Cross Sectional Area above MP Trend for Location: 5c00107 [EAS5] and Reference Profile Set

Area Above MP Trend: Eroding at -0.214 m²/Year

Survey Date

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5c00119 [SOT34] and Reference Profile Set

Area Above MP Trend: Eroding at -0.870 m²/Year

Survey Date

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5c00132 [SOT21] and Reference Profile Set

Area Above MP Trend: Accreting at 0.355 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5c00145 [SOT8] and Reference Profile Set

Area Above MP Trend: Eroding at -0.758 m²/Year

Survey Date:
- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5c00089 [EAS23] and Reference Profile Set

Area Above MP Trend: Accreting at 0.267 m²/Year
Cross Sectional Area above MP Trend for Location: 5c00100 [EAS12] and Reference Profile Set

Area Above MP Trend: Accreting at 0.121 m²/Year
Profile and CSA Charts for Management Unit NET3

Cross Sectional Area above MP Trend for Location: 5c00065 [EAS47] and Reference Profile Set

Area Above MP Trend: Eroding at -0.028 m²/Year

Survey Date


Beach Area (m²)

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78
Cross Sectional Area above MP Trend for Location: 5c00076 [EAS36] and Reference Profile Set

Area Above MP Trend: Accreting at 0.151 m²/Year

Survey Date

Recycling Event  Area Above MP  Area Trend  Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5c00045 [EAS67] and Reference Profile Set

Area Above MP Trend: Eroding at -0.372 m²/Year

- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP

Survey Dates:
- 23/08/2003 to 16/02/2008
Cross Sectional Area above MP Trend for Location: 5c00055 [EAS57] and Reference Profile Set

Area Above MP Trend: Accreting at 0.407 m²/Year
Cross Sectional Area above MP Trend for Location: 5c00026 [EAS86] and Reference Profile Set

Area Above MP Trend: Eroding at -0.107 m²/Year
Cross Sectional Area above MP Trend for Location: 5c00036 [EAS76] and Reference Profile Set

Area Above MP Trend: Accreting at 0.466 m²/Year

Survey Date

- Recycling Event
- Area Above MP
- Area Trend
- Area Between MP & DP
Cross Sectional Area above MP Trend for Location: 5c00012 [EAS100] and Reference Profile Set

Area Above MP Trend: Accreting at 1.106 m²/Year
Cross Sectional Area above MP Trend for Location: 5c00021 [EAS91] and Reference Profile Set

Area Above MP Trend: Eroding at -0.478 m²/Year

Survey Date

- 23/08/2003
- 21/02/2004
- 21/08/2004
- 19/02/2005
- 20/08/2005
- 18/02/2006
- 19/08/2006
- 17/02/2007
- 18/08/2007
- 16/02/2008

Legend:
- Yellow: Recycling Event
- Green: Area Above MP
- Green: Area Trend
- Blue: Area Between MP & DP