

# Channel Coast News

Issue 18 - December 2004

The newsletter for the Southeast Strategic Regional Coastal Monitoring Programme [www.channelcoast.org](http://www.channelcoast.org)

## Regional News

### South East Coastal Group

The last few autumn topographic profile surveys have been delivered and validated with a few inaccuracies identified which have been returned to the survey consultants for investigation and amendment.

In conjunction with other Lead Authorities, a meeting with the contractor was held to discuss the progress of hydrographic surveys and data inaccuracies. The contractor has undertaken to re-evaluate the data submitted so far with a view to fulfilling completely the specification. Their programme for remedial work will be delivered in the New Year.

The Strategic Regional Coastal Monitoring section will be closed for the week between Christmas and New Year. If you have any storms over this period which require post-storm profiles please contact Chris Longmire on 07802 774949.

### South Downs Coastal Group

Options investigated for a short-term solution for undertaking our 2004 autumn topographic survey have been deemed financially prohibitive and unachievable in the timeframe available. Long-term options for future years are still being costed. These include altering the autumn flight window to start from early September together with adjusting the lower tidal limits and undertaking the survey via LiDAR, as daylight and good weather are not required.

All bathy data has now been received with checking and quality assurance of this dataset ongoing. The April 2004 topographic data has been received from Arun DC following quality assurance. Once analysis is complete this will be reported on in the first SDCG Annual Report, due for publication at the end of January 2005.

### Environment Agency (Southern Region)

The LiDAR flights are continuing over the winter months. Delivery of the Isle of Wight LiDAR is anticipated this week, which is ahead of schedule. It is hoped that data for North Kent will be delivered before Christmas. A contract has just been let with Kent County Council to identify coastal BAP habitats from the aerial photography in Hampshire and the Isle of Wight.

### SCOPAC

The bathymetric survey of Portland Bill to Durlston Head was discussed at the joint meeting referred to in the South East Coastal Group report. Titan Environmental Surveys have completed the bathymetric survey of Chichester Harbour. Permission to survey Portsmouth Harbour has been refused by the Queen's Harbour Master until early January due to an existing dredging programme.

### Channel Coastal Observatory

The SANDS User Group meeting was held at Southampton Oceanography Centre on 8 December and was well attended by Project Partners as well as by representatives of Plymouth University and Sefton and Suffolk Councils.

## What's New?

A one day "Introduction to Matlab" course will be held at the Channel Coastal Observatory on Wednesday 19 January 2005. The course is aimed at those with little or no experience of using Matlab. Names to area representatives by 17 Jan. For informal enquiries about the course, contact Travis Mason (02380 598467).

## Contacts

If you have any queries about the Strategic Regional Coastal Monitoring Programme, or would like a personal copy of this newsletter by email, please contact your area representative:

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## Ecological Monitoring - Part II

### Introduction

Part I (Issue 17, November 2004) outlined the approach recommended by the CCO's scoping study for SSSI and cSAC monitoring. This edition will provide an update on Biodiversity Action Plan (BAP) monitoring.

### BAP targets

EN, EA and other operating authorities are advised to achieve targets set out for BAPS. Part of DEFRA's High Level Target 9 requires no net loss of BAP habitats and that opportunities for environmental enhancement be sought. Operating authorities are obliged to report annually to the Environment Agency who then report to DEFRA on all losses and gains as a result of flood and coastal defence operations.

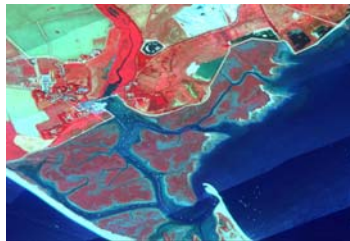
### Current approach to BAP monitoring

There has been an inconsistent approach to data collection and monitoring of BAP habitat extent, which has led to data duplication and increased cost. There has also been a lack of analysis of existing data. This, combined with the fact that there is no existing baseline, has inhibited delivery of BAP targets.

### Recommended Approach

To provide a consistent approach to monitoring BAP habitat extent, remote sensing methods such as, CASI, LiDAR and aerial photography were investigated for the following BAP habitats:

- Intertidal mudflat
- Coastal salt marsh
- Coastal sand dunes
- Vegetated shingle
- Maritime Cliffs/Slope
- Seagrass beds
- Littoral and sub-littoral
- Reedbeds
- Coastal grazing marsh



2003  
CASI

CASI provides more detail than aerial photography alone and is subsequently more expensive to fly and interpret. LiDAR provides additional height information, which helps distinguish between habitats, but is not essential.

Recommendations from Brown *et al.*, (2003), which outlined appropriate sensors for each habitat, were used in combination with limited data on the location of the BAP habitats throughout the south-east, to identify where the sensors needed to be flown. Existing data from the CCO, EN and EA were then overlaid to estimate remaining cost.

It was recommended by the CCO report that existing data be used and that CASI, LiDAR and aerial

photography be flown where necessary to provide a detailed baseline for the south-east region over 3 years. Subsequent surveys could then use aerial photography alone to identify habitat extent and save costs.



Saltmarsh BAP monitoring at Calshot (red 1945, green 2001)

### Data Management and Analysis

It was recommended that the existing data management framework at the CCO be utilized for cost saving purposes and for regional consistency of data. It was also recommended that a coastal ecologist be employed to link the two programmes and undertake analysis of large-scale ecological response to coastal processes and climate change.

### Progress

Since the scoping study was completed in June 2004, the EA have investigated potential funding for the ecological monitoring. Approval has been granted for the EA to utilise existing Coastal Monitoring project savings and to obtain funding from the EU as part of an Interreg project investigating the impacts of climate change on biodiversity.

A 3 year programme of work has been developed, concentrating predominantly on the interpretation of existing aerial photographs using the Integrated Habitat System developed by the Somerset Environmental Records Centre. In addition, CASI, LiDAR and further aerial photography may be flown where this is deemed necessary. The EA are in the process of letting a contract to interpret existing aerial photographs for Hampshire and the Isle of Wight by March 2005. An advert has been placed in the European Journal for further aerial photography interpretation between 2005 and 2007.

For more information please contact Dr Samantha Cope (02380 285818 [Samantha.cope@soc.soton.ac.uk](mailto:Samantha.cope@soc.soton.ac.uk) or Helen Dalton (01903 832077)

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### Reference

Brown, K., Hambidge, C and Matthews, A. (2003). The development of remote sensing techniques for marine SAC monitoring. Report to English Nature, 552.