

Channel Coast News

Issue 19 - January 2005

The newsletter for the Southeast Strategic Regional Coastal Monitoring Programme www.channelcoast.org

Regional News

South East Coastal Group

The afternoon session of the South East Coastal Group Meeting, to be held on Thursday 27 January 2005, will consider the format and coverage of the Annual Report 2004. Delegates will be asked to provide feedback on the content and any additional information that might be of operational benefit. The Spring Profile campaign is due to commence in March 2005 and providers are being approached for survey programmes.

South Downs Coastal Group

A text message alert from the Rustington Wave Buoy indicating a significant wave height (Hs) of 3.11m and direction of 207 degrees was received on Saturday 8 January. Halcrow were subsequently instructed to undertake a post storm survey of Area 2 - the frontage between the Rivers Arun and Adur.

Whilst surveying, Halcrow identified that one of the E2 control points (P23071) in East Worthing was no longer present due to cycle path works having been undertaken by West Sussex County Council. Halcrow therefore re-established this station, details of which will be available in due course.

Environment Agency (Southern Region)

The LiDAR flights are continuing; additional areas that have been captured include areas in SECG, SDCG and SCOPAC. Considerable work is being undertaken to QA check the aerial photography data and a similar exercise will be undertaken for the LiDAR.

An OJEU notice has recently been advertised for the next phase of the habitat monitoring work, and expressions of interest have now been received. We will soon be embarking on the pre-qualification stage.

SCOPAC

Lack of daylight hours have reduced the amount of beach surveying, although Post-Storm surveys have been carried out at Bournemouth.

The UK Hydrographic Office have informed us that, based on the nearshore bathymetry of the Isle of Wight, 5 new Notices to Mariners have been issued reporting previously uncharted shoals and, in addition, a number of depths have been confirmed which were previously considered dubious. It is extremely gratifying that data

collected for the purposes of Regional Monitoring have such a valuable additional use.

Channel Coastal Observatory

The website Data Catalogue pages have been refined to make the search process more intuitive. The most recent aerial ortho-photographs are now available for downloading directly from the website, via the Data Catalogue page. Accordingly, anyone requesting ortho-photos should now be directed towards the website.

What's New?

A one day MapInfo course will be held at the CCO on Tuesday 22 February at 1030. Names via the usual channels please; informal enquiries to Tanja Cooper (02380 598467).

A half-day workshop for Consultants will be held on Wednesday 27 April at Southampton Oceanography Centre. Further details in February's newsletter. An invitation will be sent to the main coastal engineering consultancy firms, but if there is anyone you wish to have a personal invitation, please let your area representative know.

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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Coastal Monitoring Case Study: Shepway District Council

Background

Shepway District Council is responsible for the management of the coastal defences between Hythe and Folkestone Harbour. Historically this stretch of coastline has been prone to severe storms and repeated seawall failures. The prevailing south-westerly waves move the beach material eastwards along the frontage and for the last eight years the Council has been mechanically recycling the shingle as part of its beach management programme.

In order to monitor the performance of the beaches along the 4km beach management frontage, GPS topographic surveying techniques, similar to that adopted by the Strategic Regional Monitoring Programme, have been employed since the implementation of the Hythe coast protection scheme in 1996. This detailed monitoring has enabled Shepway to effectively manage the beaches thereby maintaining healthy beach volumes in front of the aging seawall. This prevents any further deterioration or failure by ensuring that it is protected from aggressive wave impact.

The use of accurate and reliable beach monitoring techniques has allowed Shepway to maintain a healthy open beach with only two large rock groynes along the entire frontage. This open managed beach philosophy has generated many savings with respect to the maintenance costs that had previously been incurred through the upkeep of approximately 100 timber groynes.

New Schemes

The principles of the 1996 Hythe coast protection scheme were also adopted for the £13 million Hythe to Folkestone coast protection scheme. This has increased the length of Shepway's coastline, which is currently managed as an 'open beach' to 7km. The beaches and seawalls along this frontage protect close to 3,000 properties and over £20 million worth of commercial assets. Beach replenishment has been used in conjunction with 5 new rock groynes, alongside the 2 existing rock groynes at Hythe.



Figure 1. Photographs to show the construction phase and completed scheme at Folkestone, Kent

Shepway's Beach Management

The long-term management of the frontage relies heavily upon the coastal data collected as part of the Strategic Regional Monitoring Programme for the ongoing management of the beaches. The data collected provides information on beach profiles and volume along the 7km scheme frontage. This is then used to inform the beach management process. Beach recycling operations take place during the last two weeks of September. The quantity of material moved, the locations from where it is taken and the areas where it is deposited are primarily determined through the interpretation of the data collected during the regular beach monitoring surveys.



Figure 2. Four new rock structures at Folkestone

With the development of the Strategic Regional Monitoring Programme, Shepway's existing beach surveying techniques were adjusted to meet the new specification. Interrogation of the data allows beach volumes to be readily calculated and also allows the user to strike cross-section profiles through any point within the beach model. In conjunction with the profiles stored on the SANDS database, beach data can subsequently be analysed in detail to enable the beach to be managed effectively and efficiently.

Research Opportunities

One of the additional benefits of having a consistent monitoring programme and data set, has been its use as part of a DEFRA/Environment Agency research and development programme. Shepway have been given a grant to carry out research into the behaviour of the newly renourished beaches. The main aims of this three-year programme are as follows:

1. To compare the performance of existing and newly renourished beaches.
2. To examine in detail the different elements of the beach recycling process, including borrow areas, and alternative methods of placement of beach materials at the deposition area.
3. To comment on general best practice improvements identified by the study.

Further information can be obtained from Simon Herrington or Simon Brooks (01303 852305)
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