

Channel Coast News

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

Regional News

South East Coastal Group

Two contracts have been let, one for East Kent the other for Sussex, with surveying due to commence 15 May 2007. Canterbury and Shepway have both commenced baseline surveys of their respective areas. Contract 2.2 has had to be re-tendered and is due to be returned on 25 May 2007.

FEPA approval for the installation of the wave buoy at the Goodwin Sands has been received. Baseline LiDAR coverage is due to be completed in late autumn, with phased delivery in 2008. Ashley Spratt, one of our graduates, has departed for pastures new. We wish him well in his future career.

SCOPAC

All bathymetric survey data have now been received. The spring profile surveys are complete and a start has been made on the 5 yearly baseline surveys of all accessible beaches. Although in most areas they will be done with RTK GPS, in some areas the survey will be undertaken with 0.5m resolution LiDAR. The areas earmarked as being most practical and cost-effective for 0.5m LiDAR are Studland, Brownsea Island, Ryde, Ventnor and part of the West Solent.



SCOPAC surveyors have been involved in a 2 year project where ARTEL, a Chichester-based group of artists, has been linked to various departments at the NOC. The programme culminated in an exhibition in the Bargate in Southampton where our artist, Helena Hines, was pictured with her installation entitled "Reach End".

Environment Agency (Southern Region)

All aerial surveys for the spring 06/07 survey have been completed; SDCG was flown on 02 and 08 March and Lydd and Hythe Ranges on 08 March. The digital images and photogrammetry have been quality-controlled and distributed.

All LiDAR flights due in 2006/7 have now been flown. The majority of this data has been received, with the final polygons being due by the end of May. Receipt, quality-control and distribution of these remaining polygons will complete the Phase I aerial and LiDAR programmes. Coastal BAP habitat mapping from Barton-on-Sea to the Isle of

Grain, including the Isle of Wight, has been completed, partly funded by Interreg IIIb BRANCH project. It is hoped that the data will be available via the website by mid-summer, but if you wish to see any of the data prior to that please contact the Environment Agency.

South Downs Coastal Group

All profile surveys of shingle beaches (MU1–MU10, MU15B), including post-storm surveys, will now be undertaken in-house using RTK GPS. Inaccessible frontages will be surveyed by LiDAR, in replacement of the 1:3000 aerial surveys that were used throughout in Phase 1. Two new coastal surveyors, Sarah Belcher and Lois Ford, joined Worthing Borough Council's Coastal Monitoring team in April 2007.

The BMP survey of MU's 2, 2A, 3, 5, 6, 8b, 15b and Shoreham Harbour will be undertaken in the summer months using RTK GPS, starting with MU3 (Aldwick) in June.

Channel Coastal Observatory

The contract for the website and data archive for Phase II was won by Geodata, who are now updating the web pages and preparing for the expansion of the website to include the southwest coastal monitoring programme.

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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The next five years... Phase II (2007 to 2012)

Introduction

Experience over the past 5 years has allowed an assessment of the cost-effectiveness of all aspects of the coastal monitoring programme. The most notable change for Phase II is replacement of photogrammetry with LiDAR but, in general, the changes are refinements rather than wholesale modifications.

Topographic surveys

Surveys undertaken by Local Authority teams in Phase I were shown to be good value, and therefore the practise has been extended for Phase II, with the result that majority of the accessible frontage will now be surveyed by Local Authority in-house survey teams. RTK GPS will remain the primary technique for topographic surveys of accessible beaches, although in some areas, such as wide, low gradient, sandy foreshores (*e.g.* Ryde Sands) or difficult to survey regions such as the dunes at Studland, the 5 yearly baseline survey will be conducted by 0.5m resolution LiDAR to Mean Low Water Springs.

In several areas, there have been some minor changes to the survey programme, usually a few additional profiles. There are also locations where long-standing beach profiles have ceased to be useful, due generally to re-orientation of the beach or building of new structures. In such cases new profiles have been established, although the old profiles will also be monitored for up to 2 years to provide overlap with the historic data set. Once this has been achieved, the old lines will be abandoned.

The surveys of the South Downs Coastal Group frontage will see significant changes; the photogrammetry programme, which has provided beach monitoring data for many years, will be superseded by RTK GPS surveys on accessible beaches and by LiDAR on inaccessible beaches.

Bathymetric surveys

Other than those areas which receive an annual bathymetric survey, the next bathymetric survey will take place in 2009 or 2010, maintaining a 5-yearly schedule thereafter. At present, the surveys are conducted using single beam echosounders, but the southwest coastal monitoring programme has combined with the Maritime & Coastguard Agency's Civil Hydrography Programme to use multibeam echosounders in some areas. It is hoped that a similar liaison will occur in the next round of bathymetric surveys in the southeast.

Aerial photography and LiDAR

Technological advancements in LiDAR have shown that aerial photogrammetry no longer provides the most

cost-effective method for surveying inaccessible areas. Accordingly, for Phase II no further photogrammetry will be undertaken and there will be increased LiDAR coverage instead. This will begin with a complete baseline survey at 1m resolution, flown over Years 6 and 7, extending slightly further inland than previously to ensure overlap and comparability between the survey techniques. Inaccessible areas will continue to be surveyed annually, with the Harbours and saltmarsh areas being added in Year 9.

The aerial survey programme will continue with a complete baseline flight in Year 6, which will be ortho-rectified following the 2006/7 LiDAR survey. As previously, there is also the potential for some further ortho-rectification in areas which have undergone significant change, which would be completed in Year 9 if required.

Hydrodynamic and meteorological data

The coastal wave and tide network will be supplemented by additional Directional Waverider buoys at Goodwin Sands and Seaford, plus a met station on the Arun Platform. Several enhancements originally planned for Phase II were put in place in Phase I, including a directional Waverider in Weymouth Bay and replacement of the wave/tide gauge at Lymington by an Etrometa step gauge. Developments to the Etrometa software will allow the wave data at Herne Bay to be available on the website in real-time

WAP access to the real-time data will be implemented, together with a "Leisure Users" page where all the latest information from one site will be combined and automatically refreshed. In this way, users can leave the web page for one site permanently open for the latest data, whilst retaining the facility to switch to the graphs or tables for earlier data.

Ecological mapping

Ecological mapping will be fully integrated into the regional monitoring programme in Phase II. The habitat maps, completed in part by the Interreg programme in Phase I, will be reviewed in 2009 to produce updated maps, so that habitat losses/gains since 2001/2 can be quantified. Baseline habitat mapping will also be undertaken for the Barton-on-Sea to Portland Bill area.

Channel Coastal Observatory

The website will be modified to serve both the southeast and southwest monitoring programmes. No further major developments of the website are proposed at this stage, other than some updating, but the wealth of data in the Data Catalogue archive means that the downloading procedure now requires streamlining.