



## North West Regional Monitoring

**AUGUST 2015  
ISSUE 5**



Navigation Buoy on Formby Beach by Viv Pearson

## NORTH WEST REGIONAL MONITORING PROGRAMME NEWSLETTER

### Introduction

Welcome to the July issue of our NW newsletter. As you may know this is a biannual newsletter for the North West Regional Monitoring Programme. We aim to provide news on the programme, spotlight specific issues and provide an outline of upcoming monitoring, reporting and events across the region.

### Programme update

Just a reminder - the North West and North Wales Coastal group changed the name of their website. Please remember to make a note of the new name and also pay the site a visit at: [www.mycoastlineg.org.uk](http://www.mycoastlineg.org.uk)

### 2016–2020 CERMS Programme

We continue to support the bid for the next programme. The project team have been assisting the Channel Coast Observatory, who are the national lead coordinating the bid, by providing information relating to the key needs in the North West. The bid was submitted in April and is currently with the review group.

### Data collection reports

As the coordinating body, Sefton produced a data collection report for each NW Coastal Local Authority, these were distributed at the beginning of 2014. Sefton are currently updating these reports which will be available soon. Each report catalogues the datasets available and

sets the scope for future monitoring.

### The data we collect and why

Collaborating to deliver a programme of monitoring ensures that good quality data is captured to national specifications, quality controlled and securely stored. The programme's purpose is to make all data collected freely available through an open government licence. "Over the last year or so we have been asked more and more about the data we collect, why we collect it and how can coastal managers use it to support decisions. I have raised this issue with the National Monitoring Group and it appears we are not alone. Around the country, Councils and other organisations are downsizing and not directly replacing staff or combining responsibility for the coast with other engineering roles. We are looking to support those on the coast and will be developing some material in the coming months. A good starting point for those new to the role would be the Environment Agency's e-learning resources" Paul Wisse. <http://learning.environment-agency.gov.uk/capacitybuilding/>

### Contacts

- If you would like to know more about the North West Programme please contact: [coastaldefence@sefton.gov.uk](mailto:coastaldefence@sefton.gov.uk)
- For the data web portal visit: [www.coastalmonitoring.org](http://www.coastalmonitoring.org)
- North West and North Wales Coastal Group visit: [www.mycoastline.org.uk](http://www.mycoastline.org.uk)



### HIGHLIGHTS IN THIS ISSUE

- **CCO downloads update**
- **Lancaster City Council Update**
- **Ecological Mapping update**
- **Hydrological update**
- **Leica workshop event**
- **Partnership news**
- **CERMS Crossword**

## CERMS PROGRAMME DOWNLOADS

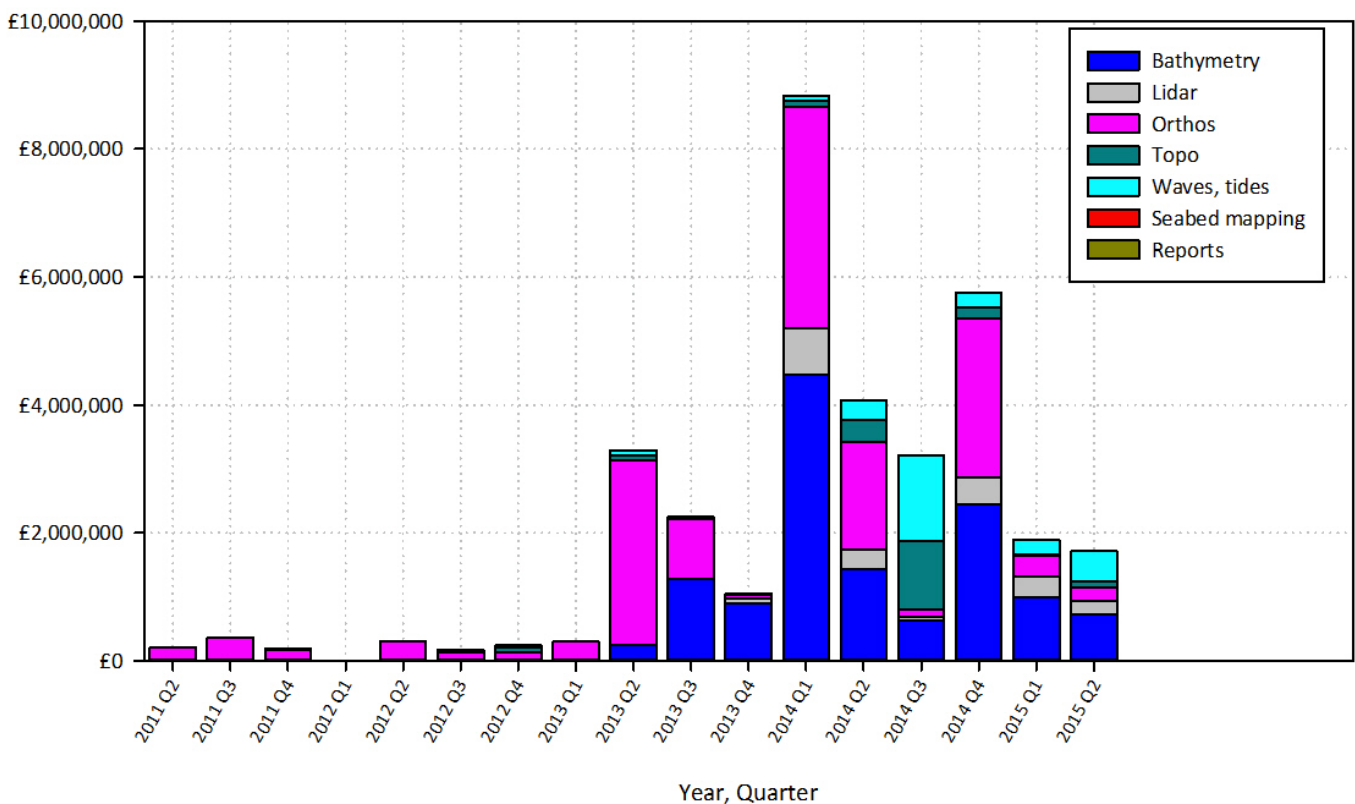
### Latest web download figures from the channel coast

The range of data available from the website clearly demonstrates the value of the information collected, not just to coastal engineers, but to a much wider audience. The monetary value assigned to this shows the saving if the data had to be collected by a number of different organisations.

From this graph you can see the last two quarters have been a little quieter, although it still shows a good amount of downloads. As ever, bathymetry, ortho photos and wave and tide data seem to be very popular. In addition to the survey data, we recently uploaded a large number of Process and Estuary reports to the website and hopefully this will show in the next download values graph. We are working with Channel Coast Observatory to make the oblique photography datasets available through the web portal. Some of them can be viewed on Google Earth.

Remember the Channel Coast Observatory have changed their web address to: [www.coastalmonitoring.org](http://www.coastalmonitoring.org)

Northwest Regional Coastal Monitoring Programme  
Website download values



## LASER SCANNING ACROSS THE PARTNERSHIP

In June Sefton surveyors travelled to Cumbria to laser scan the defences at Workington. This also involved providing training to our Cumbrian Partners so they can use the Laser Scanning equipment. Wyre have been very successful and have captured a large number of scans enabling them to extract useful information about beach levels and the success of their sandtrapping work.

In view of the potential of this work, the “new” laser scanner which the Partnership recently purchased has been placed with Wyre BC .

**Coastal Defence Inspections Conducted**

Following a number of years where sections of the coastline in Lancaster have not been inspected, during the last six months a full inspection of these sections has been carried out. Using a format similar to the one created by Sefton Council, the inspections are expected to be conducted every 6 to 12 months dependant on location, and recommend where improvement, repair and/or capital works are required.



**Coastal Protection**

Having a regular inspection routine and carrying out essential repairs means the area is better prepared for storm events in the future and that the Council as Coastal Protection Authority for the area better understands the risks and potential impacts.



**Coastal Monitoring Report 2014**

Lancaster City Council is now finalising an updated Monitoring Report having analysed all of the data provided following surveys during 2014. This will also include the coastal inspection report.

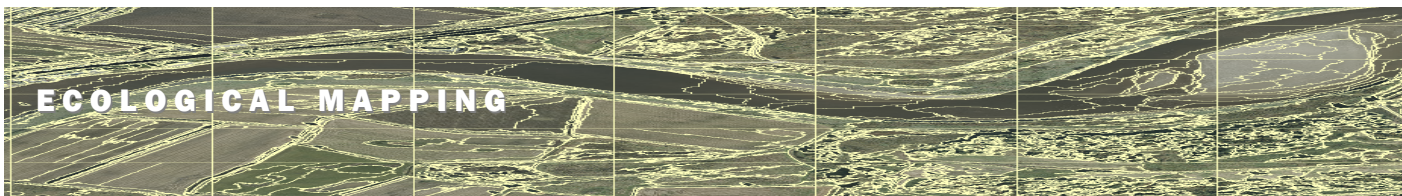


**Wave Reflection Wall Project**

The £10m project to replace 4 miles of the wave reflection wall in Morecambe is expected to commence this autumn. The scheme has recently been granted planning permission and the contractor, Volker Stevin is preparing to commence after the busy summer season has passed.

Find out more at <http://www.lancaster.gov.uk/planning/engineering/coastal-protection/wave-reflection-wall/>

Article by Oliver Wood



## NORTH WEST COASTAL MONITORING PROGRAMME

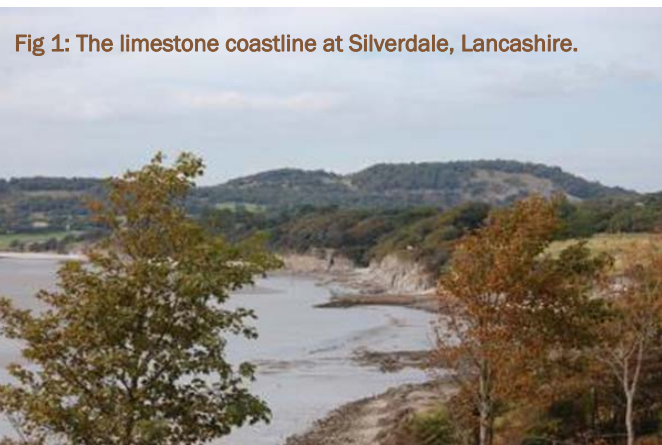
The North West Regional Monitoring Programme, identified a need for ecological survey information to assist coastal defence management, and inform the program and statutory bodies of coastal habitat change.

The ecological mapping component of this project began in June 2014, led by Sefton Council and carried out by Environment Systems Ltd., with a remit to map priority Biodiversity Action Plan habitat extents for the North West Region, covering the coastline and all major estuaries from the Solway Firth to the River Dee; a varied section of coastline ranging from low-lying saltmarsh and mudflats, to steep cliffs above rocky shores (Fig 1).

The principal objectives of the mapping project were to provide Priority BAP extent data for:

- ◆ Establishing baseline datasets for the North West where they are missing or inadequate.
- ◆ Identification and quantification of regional coastal change.
- ◆ Assessing losses and gains for the Regional Habitat Creation Programme.
- ◆ Identification and strategic consideration of coastal flood and erosion risks.
- ◆ Assisting development of Biodiversity Action Plans.
- ◆ Providing contextual information to support Appropriate Assessments for Shoreline Management Plans, Flood and Coastal Defence Strategies and Flood and Coastal Defence schemes.

Habitats were mapped in a two-stage process using high resolution aerial photography and elevation (LiDAR) datasets, which had been captured during 2012 and 2013. The first stage employed image analysis techniques to segment the imagery into small objects according to their size, shape, colour and height above sea level (Fig 2). The second stage brought in a team of aerial image interpreters to classify the objects within a Geographical Information System (GIS).



**Fig 1: The limestone coastline at Silverdale, Lancashire.**

A dual-system classification was carried out, so that each segment was classified in both Phase 1 and Integrated Habitat System (IHS) notation (Fig 3). A range of other information was also linked to each habitat segment, including elevation and associated NVC habitat types.

As part of the project's extensive quality assurance arrangements, ground surveys were undertaken to validate the accuracy of the digital mapping output. Surveys were spaced out across the geographical range of the north west region, sampling as many of the Priority habitat types as possible.

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**Fig 2: Image segmentation (left) used to create the habitat map .**



**Fig 3: Detailed mapping of small scale habitats such as saltmarsh creeks and saline lagoons.**

Outputs from the project will be used by Sefton Council and partners such as Natural England to help deliver government priorities for shoreline and habitat management. The project has been designed such that the outputs from the coastal and terrestrial habitat mapping can be made freely available on the Channel Coast Observatory website [www.channelcoast.org](http://www.channelcoast.org)

# Leica Geosystems | Tour

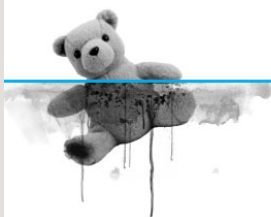
## Your World, Our Solutions

Sefton's two surveyors Lee and Viv attended one of the roadshows on Leica's latest tour. It was held at the Concorde Centre, Manchester, on the 15th June and was very well attended. In addition to the presentations, Leica ran a series of workshops featuring their new surveying equipment and delegates could see up close, the latest innovations. Among other things they got a close up look at the latest upgrade to the Leica Viva range of equipment and the latest model of the 360 scanners plus a chance to talk to Leica staff and colleagues from other authorities and companies. Plus of course a short trip on Concorde, although sadly, it never leaves the ground.



### Update on Be Flood Ready website

#### HOME, SWEET HOME?



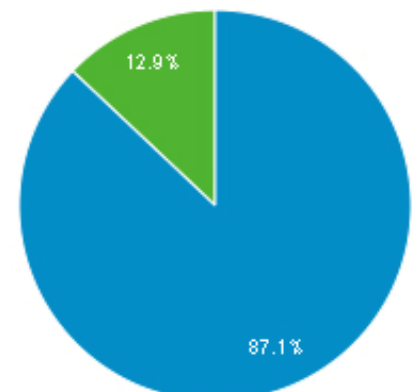
**FLOODS  
DESTROY  
BE PREPARED**

Since the launch of the website, we have received some really positive feedback from partners, communities and teachers. We would welcome any support partners can provide in promoting the site in your local communities, schools and businesses. We have a number of case studies but more are always welcome, please send them to the address below.

The latest figures show that the site has had 10,558 hits, with the majority of those visitors being UK residents, (63%). The next highest visitors in order are from; USA, China, Brazil, Russia, Japan, Germany, France, and the Netherlands, with the site even getting a hit from Timbuktu!

For further information or to be provided with the advice leaflet for adaptation please contact the Flood and Coastal Erosion Risk Management Team by email at [flooding@sefton.gov.uk](mailto:flooding@sefton.gov.uk) or on 0151 934 2958

■ New Visitor ■ Returning Visitor



## CERMS PROGRAMME UPDATE

### More news – Spring 2015 Surveys complete

All Sefton's beach profiles and topographic surveys were completed by the end of May and the full sets of data have been received from the contractor for the rest of the NW. The team at Sefton are currently busy adding all the data to their SANDS database, checking and carrying out small corrections. When this is complete the data will be available to the partners and also uploaded to the Channel Coast site. Topographic data for 2014 is available from the website for 11E and 11D and we are working to get the latest profiles onto the site.

The intertidal sediment samples collected in Autumn 2014 were sent to the contractor and have been analysed. The full report will be available when the bathymetric sample collection is complete. It should also be possible to add the sediment results to our SANDS database which will add another dimension to analysis.

### Hydrodynamic update.

The St Bees Head deployment has yet again been hit with problems. In the last newsletter it was reported that there were problems with all 3 deployments, 1 had been vandalised (central), 1 had gone (North) and it wasn't possible to raise the other (South). Since then we have had divers out to recover the southern one but the phrase 'finding a needle in a haystack' was used by one of the divers as the visibility on the sea bed was below 5 metres. It should be noted that the AWACs do have a transponder on them to assist in locating them but at this site the signal was muffled and feeding back varying locations.

Undeterred by this, 3 awacs were redeployed at the beginning of December 2014. In April 2015 the RNLI called to say they had retrieved the Northern AWAC as the buoy, with AWAC still attached, was drifting. In June the contractors went out to retrieve the other 2 awacs for deployment elsewhere. When they got to the Central site there was no buoy and it was feared the AWAC had been interfered with again. Thankfully the transponder worked and they were able to retrieve it. Then they went to the Southern site and the buoy was present so things were looking good....until they tried to retrieve it. Yet again the mooring broke and they were unable to retrieve it. And again the transponder was giving spurious readings so after 2 hours of grappling they left it. After the previous diving expedition it has been decided to leave the AWAC where it is in the Cumbrian equivalent of the Bermuda triangle.

Thankfully this is the end to this phase of AWAC deployments as they have been moved further south, with 4 new sites stretching from Haverigg down to middle of the Mouth of Morecambe Bay.



Not to be out done by its northern neighbours, there have also been issues with the Blackpool and Formby deployments. Blackpool has started to sink, which is the first time the contractors have seen this at the site, but the quality of data is not affected by this. Whilst Formby too, came off its mooring line whilst it was being raised. In this instance the contractor went back out and recovered it at their own expense.

Thankfully we have not had any issues with the Wave Buoys, but we have experienced a number of issues with the base stations. The Mersey wave buoy went off line for 4 days when Crosby Lakeside had comms issues. And there is a continuing comms issue being experienced with the other 2 wave buoys which use the same base station in Cleveleys. The contractor says that there is intermittent interference on the radio frequency used by the buoys, this interference randomly appears and can last for a week. To overcome this the contractor has been scoping out other suitable locations for the base station and we are exploring the suitability of the Rossall Observation Tower as the new base station site.



Bathymetric survey vessel - Pulsar



*Proud of our past. Energised for our future.*

## **New interpretative boards—coastal history and fascinating**

Did you know that the villagers of Bootle once fought with ‘sprigs of oak’ to look after their coastline? Or, that the fishermen of Parton once caught herring with the aid of porpoises? These and many other interesting facts will soon be publically displayed on interpretation boards along Copeland’s coast, with the first board being installed in Millom on Tuesday morning, June 23.

The new boards will help visitors discover some surprising history, fascinating coastal facts, QR codes linking to online resources and audio soundtracks recorded at Music Farm in Egremont by local volunteers (including children from Haverigg Primary School).

Funding for the project has been sourced from the Heritage Lottery Fund, North & West Cumbria FLAG and Copeland Borough Council, who have been working alongside the coastal communities of Copeland to highlight the rich and diverse heritage that has helped shape the borough today.

In developing the new boards, the council consulted local communities and asked for stories they felt were important to share with Copeland’s coastal visitors. Support was received from various individuals and organisations including Cumbria Railway Association, Millom Discovery Centre, The Beacon Museum, Whitehaven News and the North West Evening Mail, who all kindly permitted the use of fantastic old photographs, and Cumbria Wildlife Trust who alongside volunteers helped to identify key species along Copeland’s coast.

Natural England have also supported the scheme by funding a new interpretation board to be located at Drigg, which will give information regarding the newly designated Marine Conservation Zone stretching from St Bees Head to Ravenglass.

Marine litter information will also be provided to promote a greater understanding of the issue and hopefully foster a more responsible attitude to the local environment. The young people at Whitehaven Harbour Youth Project, North Copeland Youth Partnership, Action for Children (Haverigg) and Shackles Off (Seascale) have all helped with the design for the marine litter message.

The new interpretation boards have been designed for Lowca, Parton, Whitehaven, St Bees, Drigg, Ravenglass, Bootle, Silecroft, Haverigg and Millom (Seascale had a new interpretation board in 2012). All of the new boards, plus the board at Seascale will incorporate audio versions to ensure those with vision problems/ reading difficulties can still access the information. All sites will also display the marine litter information.

Hugh Branney, Chair of Copeland Coastal Initiative Project Board, said: “The new boards will be a fantastic addition to Copeland’s popular coastal areas. People can now come and learn about Copeland’s long and diverse coastal heritage, and gain a greater understanding of the local environment through visual displays, interesting facts and audio recordings. We would like to thank local community partners, funders and local volunteers for all their hard work and enthusiasm for this project and look forward to the boards being installed over the next few weeks.”

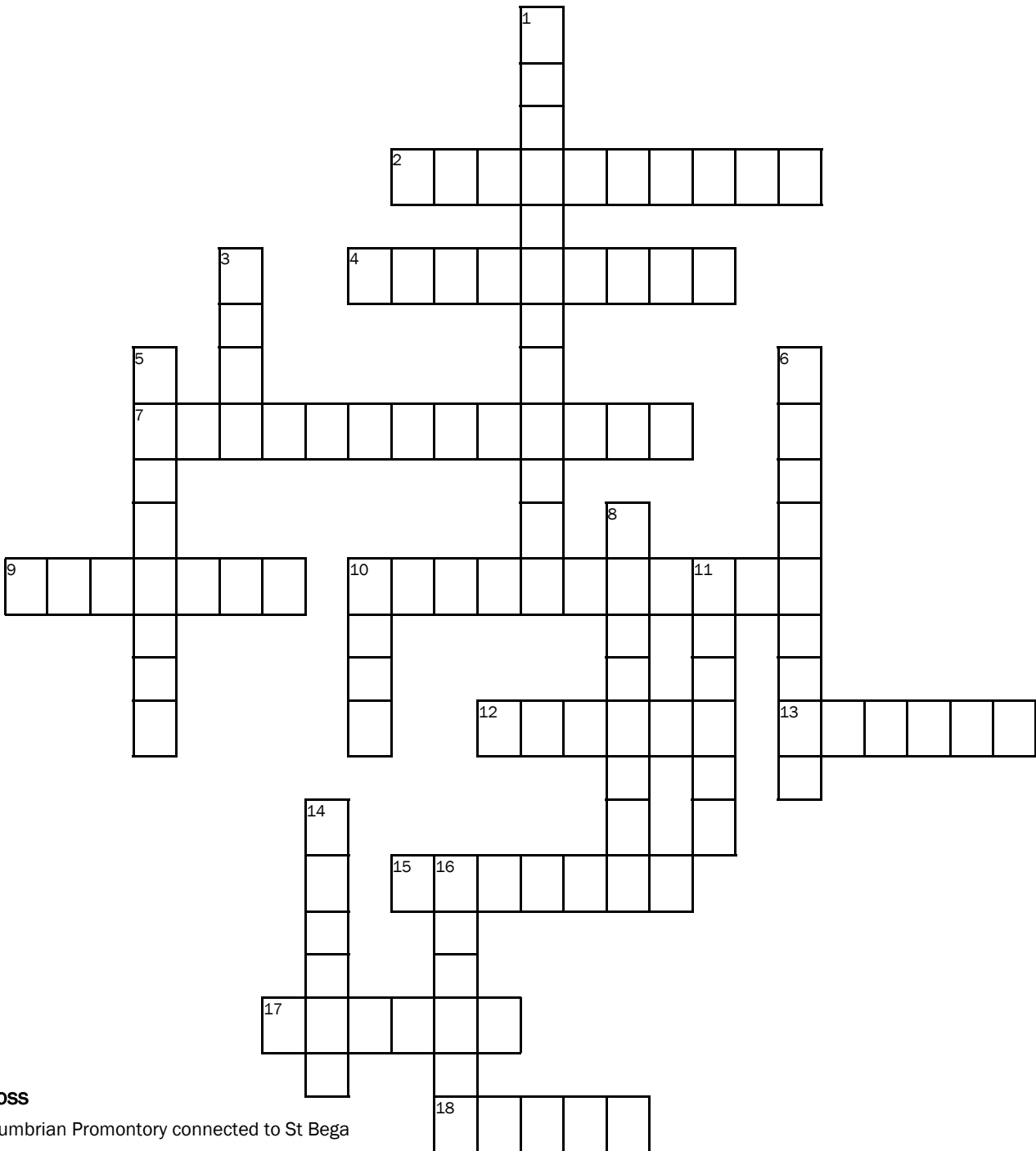


*Take from press release date, June 19, 2015 and supplied by David Bechelli*

# CERMS CROSSWORD

Just for fun! Test your coastal knowledge (or how many newsletters you've read) with our CERMS and NW coast related crossword.

There's no prizes, sadly but the names of those with correctly completed crosswords will appear in the next newsletter, along with the answers. If you'd like to take part send your completed crosswords to Viv at viv.pearson@sefton.gov.uk



## Across

- 2. Cumbrian Promontory connected to St Bega
- 4. Name for how sand grains move
- 7. Impact or effect caused by humans or their activities
- 9. A spit connecting an island to the mainland also a fair game
- 10. Wet profile extensions
- 12. High astronomic tide, not seasonal
- 13. Regional monitoring area for North West
- 15. Measured line across beach
- 17. Rigid hydraulic structure built on shore or in rivers that interrupts water flow and limits the movement of sediment
- 18. Remote sensing technique using light

## Down

- 1. Largest intertidal area in the UK
- 3. Deposited sand projecting out to sea but joined to the mainland at one end
- 5. Lost at sea
- 6. Pioneer plant, comfy to sit on
- 8. Looking straight down aerial photography
- 10. A shingle or sand ridge, often near dunes, (coastal joke - like posterior)
- 11. Pattern of hills on beach
- 14. Undersea glacial feature
- 16. Pattern of valleys on beach corresponding to question 11 down



## MYSTERY PHOTO

Just for fun! Can you identify the location of this photograph - a clue is, its in the North West.

Actually Copeland Borough Council found some archive photo's but are unable to locate exactly where some of the photos were taken. Sadly again, no prizes. The answer is at the bottom of this page.



“Recently some historic aerial photos have been found by a former employee [of Copeland Borough Council, who was given them to look after, following the move of the Engineer to the Environment Agency]. They have been taken in a series of passes and stretch from the open coast to inland areas and cover four different Local Authority Areas. There are some excellent channel shots of some estuaries and many show industries, which are no longer present, reminding us of the sad decline of Britain’s industry.

Unfortunately, the date is not currently available and several of the photos are completely blank or show very little.” *David Bechelli.*

Thanks to everyone who contributed to our July issue newsletter, remember if you would like your CERMS news or articles to appear please send them to [Viv.Pearson@sefton.gov.uk](mailto:Viv.Pearson@sefton.gov.uk)

The next NW CERMS Newsletter will be published in January 2016.

**PRODUCED BY SEFTON COUNCIL**

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