



North West Regional Monitoring

**APRIL 2016
ISSUE 6**



St Bees Head - Photo Doug Sim

NORTH WEST REGIONAL MONITORING PROGRAMME NEWSLETTER

Introduction

Welcome to the April 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.mycoastline.org.uk

2016–2020 CERMS Programme

Sefton has received written confirmation of funding for the next CERMS programme, however the funding was subject to a 35% reduction compared to the previous programme. All the CERMS partners are working to absorb this reduction by increasing collaboration and partnership working and by looking at new ways of delivering the programme. There will be changes to the survey programme as the least cost effective datasets will be removed. The project team continue to assist the Channel Coast Observatory, who are the national lead coordinating body.

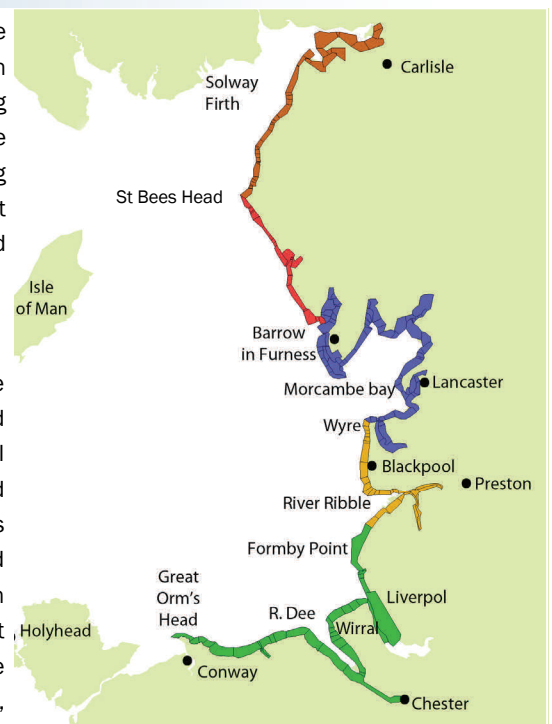
Data collection reports

As the coordinating body, Sefton produce data collection reports for each NW Coastal Local Authority,

these were first distributed at the beginning of 2014 and updated in September 2015. Sefton are updating these reports again and will distribute them in May 2016 when the Spring surveys are complete. 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 stored securely. 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. At a time when many Councils are downsizing, not directly replacing staff or combining responsibility for the coast with other engineering roles, the CERMS programme is more important than ever. A good starting point for those new to the role would be the Environment Agency's e-learning resource. <http://learning.environment-agency.gov.uk/capacitybuilding/>



HIGHLIGHTS IN THIS ISSUE

- CCO downloads update
- New water level data
- Focus on Copeland
- Hydrological update
- Crosby Beach Navigation Markers
- CERMS Crossword solution

Contacts

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

CERMS PROGRAMME DOWNLOADS

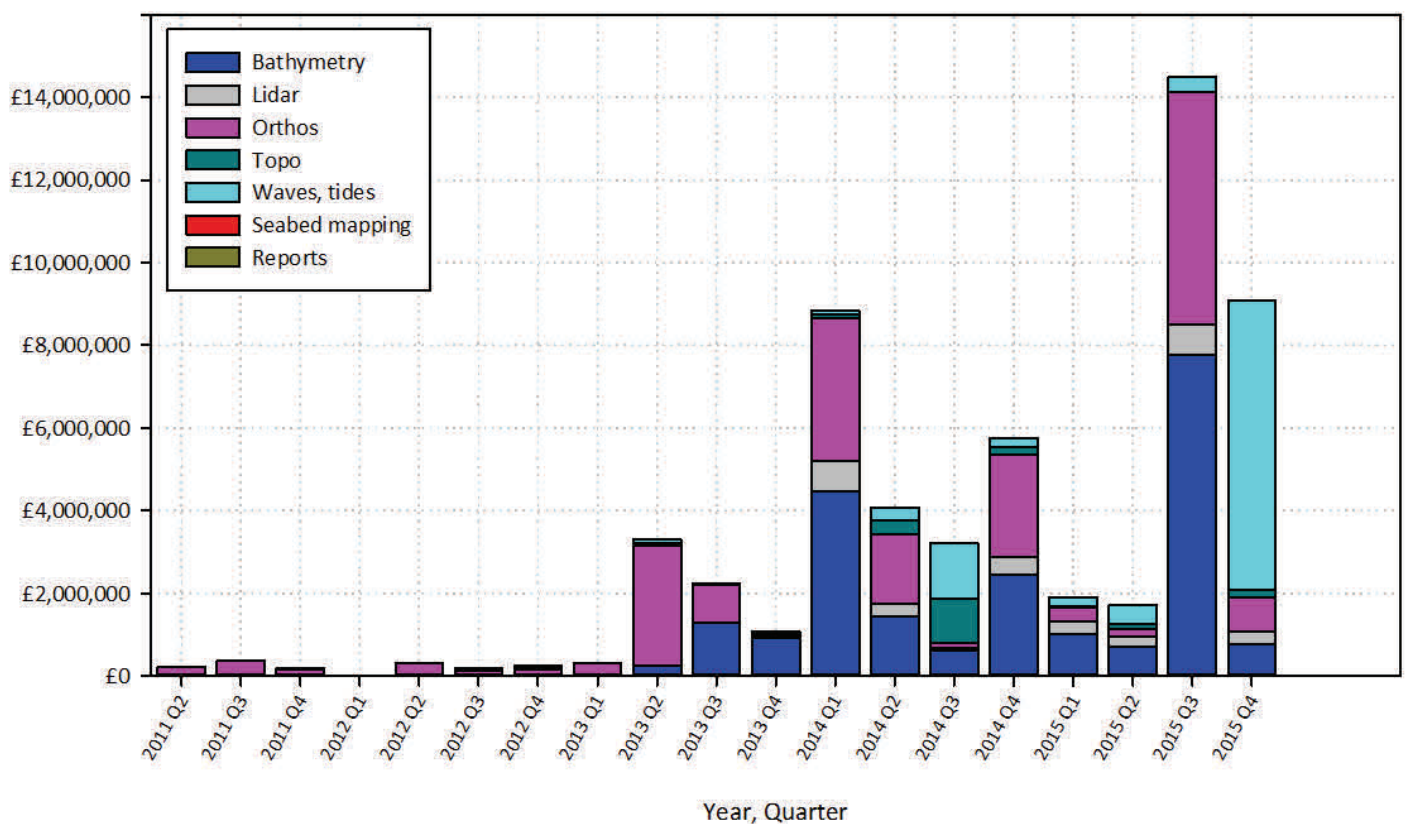
Latest web download figures from the web portal

The amount of data downloaded from the website clearly demonstrates the value of the information collected, not just to coastal engineers, but to a much wider audience, including students and environmental organisations. 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 shows a surprising increase in interest in wave & tide data as well as bathymetry and vertical aerial photography (orthos), in fact the last two quarters are amongst the busiest quarters we've seen. Remember the National Coastal Monitoring Portal have changed their web address to: www.coastalmonitoring.org

So remember to get your data uploaded, send it to the team at Sefton and advertise the site as widely as possible as it really is providing extra value for money from the data CERMS collects.

Northwest Regional Coastal Monitoring Programme
Website download values



Environment Agency Water Level Data for the North west

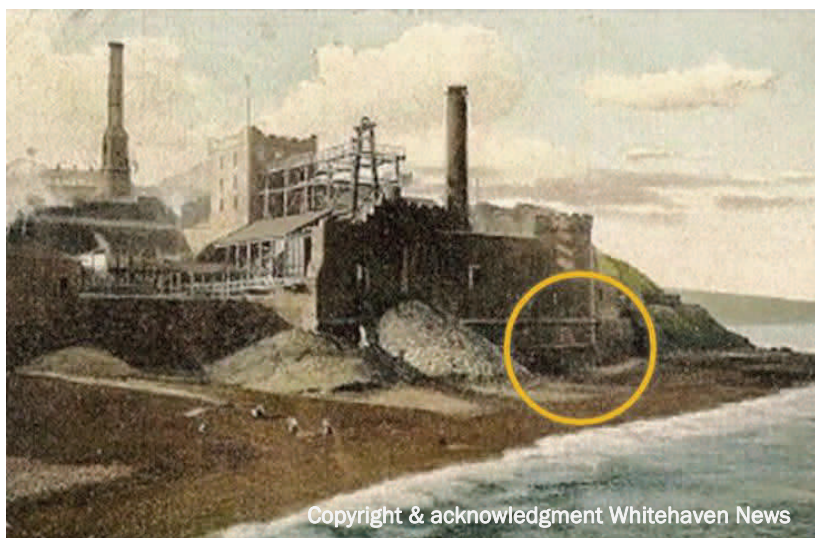
Sefton's FCERM team recently acquired the Environment Agency's water level data for the North West. The data is obtained from gauges, many of which are located upstream on rivers and watercourses. The data was provided in three packages, Cumbria, Lancashire and Greater Manchester & Merseyside. This data is available from the FCERM team. It can be exported in SANDS Water level format. Data is available for some sites going back to the 1990's and is an invaluable resource for analysing patterns in rainfall and understanding the tidal influence upstream.

File	Edit	Format	View	Help
SANDSExport=WaterLevel				
Location=Canal Foot (EA)				
Easting=331395				
Northing=477644				
From=07/10/1994 09:50				
To=02/05/1995 00:00				
NoOfPoints=22298				
Columns=date, height				
07/10/1994 09:50,0.910				
07/10/1994 09:55,0.906				
07/10/1994 10:00,0.905				
07/10/1994 10:05,0.903				
07/10/1994 10:10,0.903				
07/10/1994 10:15,0.901				

Historic Structure revealed by land slip

The recent assault by rain, wind and waves has revealed part of an historic structure at Whitehaven. The poor weather conditions caused a land-slip at South Beach exposing a section of the 19th century Wellington pit buildings. A shoreline infill area, below the Candlestick chimney, Whitehaven, has collapsed and washed away bringing down barrier fencing and exposing part of the old pit masonry. With its crenellated walls, turrets and great keep Wellington Pit's surface buildings were designed by architect Sydney Smirke to resemble a castle. The iconic landmark, the Candlestick, the Coastguard lodge and sections of the old wall are now all that remain.

On New Years Day, 2006, a 50-year-old woman from Frizington was killed when another section of the unstable banking collapsed on top of her while she was out walking with her partner. She suffered fatal head injuries as eight tons of rubble crashed down onto South Beach. The cliff there is a man-made slag bank, built up from mine debris from over 60 years ago.



Wellington, whose twin shafts were sunk between 1840 and 1845, was a fiery pit and the scene of numerous accidents, including the major disaster of 1910 which killed 136 men and boys. It closed in 1932.



Structure revealed Comparing the picture above and the picture on the left, it is clearly possible to see the structure is the base of the crenellated tower. The picture below also shows the crenellated tower and walls and the original level of the shore.

The explosion of 1910 The first sign that something was wrong came when some men reported air rushing out of the pit at about 7:30pm on the 11 May 1910, indication that there had been an explosion.



The explosion was caused by a build up of methane or fire damp, as it was known then. The methane was probably ignited by a spark or naked flame.

Photo public domain BBC website.

Copeland enjoys a milder Winter in 2015

Fortunately the Winter weather this year has been much kinder to Copeland and no damage has occurred to the sea defences, harbour walls or coastal properties. The winter weather still looked quite dramatic but it hasn't been as destructive. Below two pictures by David Bechelli, taken looking north and south at St Bees. These photos were taken on the 5th February during a lull between Storm Henry and Storm Imogen.



Seascale Below a picture of Seascale promenade taken on the 26th of January 2016, 2 days before Storm Gertrude arrived at our shores. Notice the cobbles thrown up onto the path by the force of the waves.



Plans for Solway Tidal lagoon stall

A MULTI-BILLION pound tidal power project off the Workington coast has been put on hold by the company behind it. Tidal Lagoon Power announced its proposals in 2014 for the tidal lagoon to be created between the Port of Workington and Dubmill Point, which is just North of Allonby. Despite feasibility studies being carried out, the firm has decided to concentrate on its first two lagoon projects in Swansea Bay and Newport, in Wales.

It was approved by energy ministers last year but this week, Tidal Lagoon Power said the project had been set back 12 months after negotiations over how much public money it would need stalled. Mark Sharrock, Chief Executive of Tidal Lagoon Power said a definitive answer about the amount of funding available would be needed to be forthcoming during the next four to six weeks, or the project would run into major problems.

The firm has ambitions to create six lagoons across the UK and it was hoped that the West Cumbrian lagoon would be operational by 2023. A company spokesman said "We remain confident that a tidal lagoon in this area could deliver a range of economic, social and environmental benefits. In the meantime our current priority has to be the construction of our first project in Swansea Bay and the continued development of Tidal Lagoon Cardiff and Tidal Lagoon Newport, as the first full scale lagoons that are now in the planning system". The West Cumbrian project would be a larger version of the Swansea Bay lagoon and would power homes throughout its 120 year life.

Giant sea walls would use the power of the tides to generate gigawatts of electricity. Plans also include up to 90 turbines set within the breakwater. The wall of the tidal lagoon could also feature public amenities, tourist attractions and diversity schemes such as production of biofuels through marine farming. It is also hoped the lagoon will help alleviate erosion along the coast due to the calmer waters. It would tie in with the Moorside nuclear development, as a new National Grid connection would be in place to send power north and south. *(abridged article from the News&Star 11 February 2016).*

An artists impression of the proposed Swansea Bay Tidal Lagoon



CERMS PROGRAMME — BUOY TROUBLE

BY ANDY MARTIN

Hydrodynamic update.

Those of you who like action films may be familiar with the film Die Hard and the subsequent and imaginatively titled Die Hard 2. In the film the hero John McClean utters the words “how can this stuff happen to me again”....Those same words were uttered by Andrew Martin when he learnt that the recent AWAC deployment around Barrow had hit similar snags as that of St Bees Head deployment.

As mentioned in the previous newsletter the Barrow deployment saw 4 AWACs deployed along the coast from Haverigg down to the middle of the mouth to Morecambe Bay.

We had early omens that things were afoot with the AWACs as slowly but surely one by one, the buoys appeared on beaches along the coast. Obviously, not a good sign but it doesn't mean all is lost as the frames have transponders on which ping a response to a command module on board the contractor's ship.

Unfortunately there are no prizes for guessing what happened when the contractors went out to retrieve the AWACs...They pinged and pinged and pinged but nothing was answering them, they expanded and expanded the search areas pinging away but still nothing....The contractors, to their credit did try grappling again, which I believe is an unpleasant task, but there was nothing on the sea bed. They moved to the other sites and again nothing. It was only when they got to Haverigg that they were able to recover an AWAC.

The contractor says that as there was no ping from the frames its most likely that the frames have been removed. Thankfully two marker buoys were retrieved and put into storage until they could be collected.

Thanks to Peter Buckley and David Bechelli for rescuing the buoys that washed up on their patch.



Peter Buckley (6ft3) from Barrow Borough Council pictured with the 'larger in real life' marker buoy.

This was no easy task as Peter Buckley's photo shows how this one was firmly wedged into the rock armour. This, for the moment is the end of this phase of AWAC deployments, but on a lighter note, all the available data from the St Bees deployment has been received from the contractor and input to our database.

No major issues reported with the Wave Buoys so far, which is a relief to the team and especially Andrew Martin.

CERMS MONITORING PROGRAMME

REPLACING THE LIGHTS ON THE NAVIGATION MARKERS

More Spring news

While not strictly a CERMS project, Sefton recently arranged for the contractor, Marland Marine to replace the lights on the navigation markers on Crosby beach, a 2 mile stretch of beach located on the west bank of the River Mersey and known internationally as home to Anthony Gormley's art work "Another Place". The markers are obviously very important for navigation and safety across this stretch of coast from Hall Road to Seaforth adjacent to the channel on the approach to Liverpool Docks. Marland Marine obtained a small hovercraft to carry out the work, as Crosby beach is well known for deep channels of mud and vehicles taken onto the beach regularly get stuck. It proved very popular as whenever it could be viewed in the distance, it was often surrounded by a crowd of interested onlookers.

The hovercraft allowed the engineers to set up a stable platform to erect a ladder to service the lights whilst at the same time avoiding the danger of getting a conventional vehicle stuck in the sands.



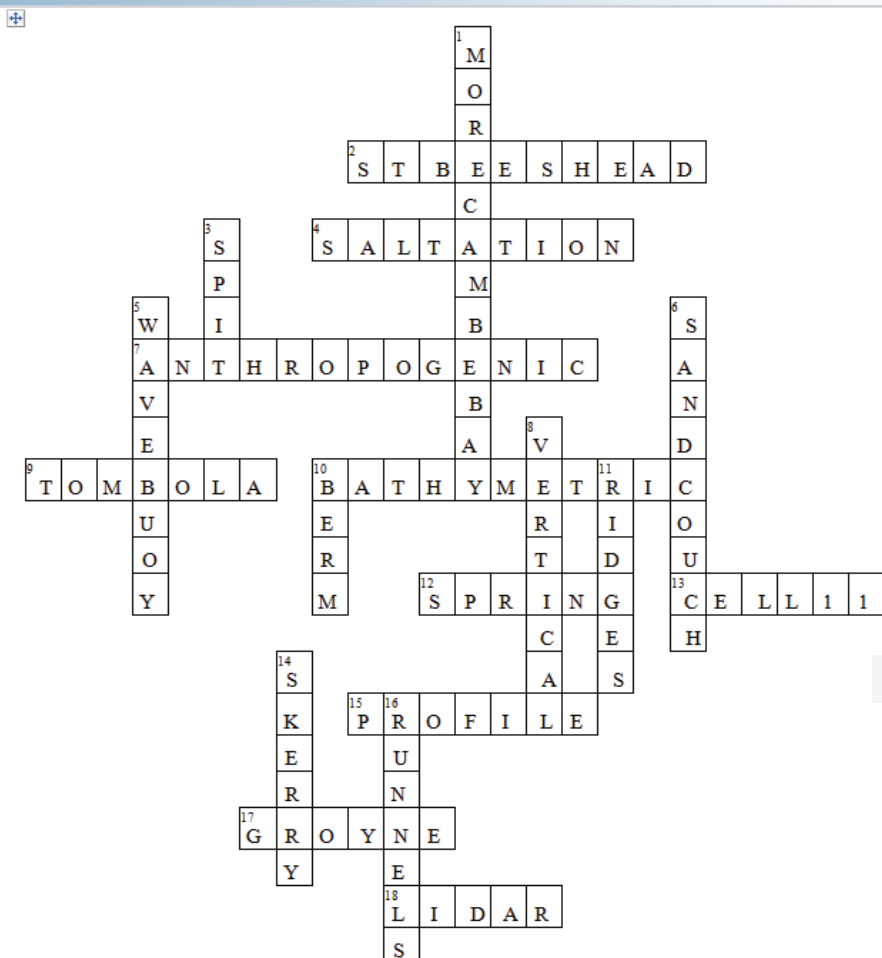
Spring Update

In a move to work more efficiently and effectively, one of Sefton's surveyors travelled to Wyre to help conduct coastal topographic surveys. This was especially helpful and a better way of working as Wyre only have one Surveyor who is able to undertake coastal surveys whilst being monitored by a safety vehicle. Working together reduced the time needed to collect the data and removed the need for a safety vehicle.

The team at Sefton, as always, 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 National Coastal Monitoring Portal. The majority of Topographic data up to 2015 is available from the website, the 2015 11D and 11E autumn surveys are being finalised and will be uploaded shortly. The Ecological Habitat Survey based on 2013 datasets is also now available through the portal.

Also Sefton has recently received the first batch of bathymetric data for the North West 2015 survey which includes bathymetric profile extensions. This will be quality checked and made available through the National Coastal Monitoring Portal.

ANSWERS TO OUR FUN CERMS CROSSWORD- AUGUST 2015 ISSUE



Across

2. Cumbrian Promontory connected to St Bega
4. Name for how sand grains moves
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
11. Pattern of hills on beach
14. Undersea glacial feature
16. Pattern of valleys on beach corresponding to question

Hope you got them all right! If you have any ideas or would like to have your own CERMS or coastal related crossword or quiz published in the newsletter, please send it through.

We are always looking for news and articles around the region so please send me your stories or information about the latest scheme, staff or projects. Please send them to Viv.Pearson@sefton.gov.uk

Thanks to everyone who contributed to this newsletter, The next NW CERMS Newsletter will be published in November 2016.

PRODUCED BY SEFTON COUNCIL

Flood and Coastal Erosion Risk Management

Investment Programmes & Infrastructure

Department of Built Environment

Magdalen House

Trinity Road

Bootle

L20 3NJ

CoastalDefence@sefton.gov.uk