

EAST COAST TIDAL SURGE

Business Resilience update 01 – February

It's fair to say that 2013 gave us our fair share of extreme weather that tested our response and recovery plans. During the early part of the year we had snow and temperatures that hardly reached above freezing. Then following a fairly calm Spring and a warm Summer, our region has faced storm after storm that continue to challenge our resilience.



Most recently we braced ourselves for possible flooding as a result of high tides and strong winds. Luckily the storms didn't affect our operations in any major way. It is a great testament to the planning and preparation we do for such events that we dealt with this with only minor disruption.

A huge thank you goes out to everyone involved in our response to what was the biggest coastal tidal surge for over 60 years.

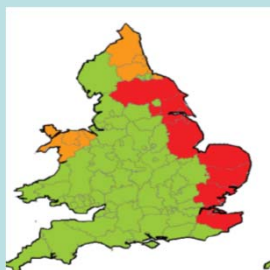
What happened? The surge was caused by the combination of the high, spring tide, a tidal surge and strong winds.

Spring tides - Spring tides are quite normal and happen twice a month. A spring tide alone will not normally cause flooding. A tidal surge occurs as a result of low pressure systems which cause sea levels to swell in addition to the high tide. Strong winds also dictate the height of waves and the direction it pushes the waves down the North Sea.

High tides - On 5 December, low pressure and strong winds combined with spring tides, raising the sea level by an additional 1.60 metres above the predicted high tide. The high tides reached Grimsby at about 19:00 on 5 December and moved down the coast to Wells (20:00), Great Yarmouth (22:00), Felixstowe (01:00) and Tilbury at 03:00.

The main areas affected in our region were the South Humber Bank, Boston and the North Norfolk Coast.

In total 38 water recycling assets were affected.



OUR STRENGTHS

Pre-planning and exercises really paid off

Planning and preparation for this type of incident was excellent. As events unfolded people knew what to expect and understood their role in our response. It was great to see all the training and exercising coming to life.

The willingness of our staff

The coordination and willingness of our staff from across the business to provide support was unprecedented. Thanks to everyone involved.

The coordination of the recovery worked well

Although we've learnt that the recovery phase must start much sooner, the coordination of the recovery in the following weeks worked well and continues today.

Teams from Maintenance, Treatment, Operational Capital, the Energy Team, RES, Scientific and the OMC all played their part. It is important that we capture what we did ready for future events.

WHAT WE LEARNT

Communication with field teams

Although first-hand involvement with conference calls for all operational managers was seen as a success, we must improve how they themselves are managed and how key messages are effectively communicated to those involved. We are looking at phonecast options for future wide-scale incidents.

Engagement with multi agency partners

The way we communicate with our representatives at multi agency command groups can be improved; *"Silver envoys struggled with gaining correct and timely information"*

WHAT NEXT?

The Business Resilience team has coordinated an internal debrief and plan to attend operational team meetings in the key areas affected over the coming months.

The team has also been in regular contact with our multi-agency partners in Humberside, Lincolnshire, Norfolk, Suffolk and Essex.

A report including the positive learning points has been produced. The Business Resilience Hawk pages will be kept up to date with all the latest information and progress against the lessons identified.

If you would like any more information, or have any questions please contact the Business Resilience Team.

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FEBRUARY 2014

IN PICTURES...



CLEETHORPES

DAVE HARDY



LOWESTOFT



BIRDS EYE VIEW OF LINCOLNSHIRE

NORTHERN POWERGRID

THE HEROES

Our response to the East Coast tidal surge flooding was a real team effort, especially across Maintenance, Operational Capital, Treatment and the OMC who have been involved throughout.

The Kings Lynn Maintenance team, including Barry Grant, working alongside Ian Spriggs and Jamie Thurley in Operational Capital were instrumental in responding to the pumping stations affected on the North Norfolk Coast. Along with contractor support from Bloom and Wake and Graham Rinttol.

John Jennings, Roy Drinkall and our contractors Jacobs worked tirelessly to recover North Ferry WRC after it was flooded.

Sorry if you were involved but not listed. In truth there are too many people to name everyone. Rest assured your efforts have been recognised and appreciated.

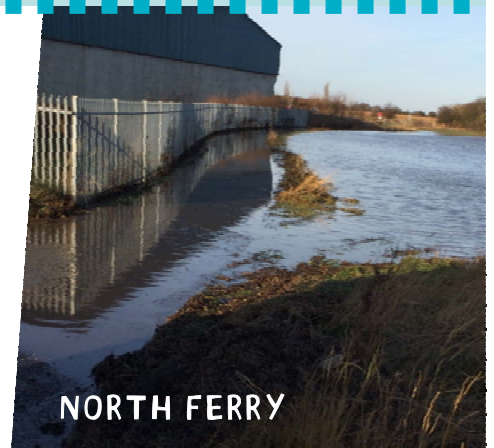
GOLD AND SILVER ENVOYS

Pete Holland, Paul Naylor, Tim Blackmore, Rob Kelly, Andy Brown and David Mann were all deployed to multi agency coordinating groups to represent Anglian Water. These groups are vital in getting real-time information to and from partners on the ground. Thank you for your support. The Multi-Agency Support Group was meeting throughout the event to share information about the situation regionally - critical in a regional event such as this.

NORTH FERRY WATER RECYCLING CENTRE

North Ferry WRC was one of the worst affected sites on the South Humber Bank. The flood water was three foot high in some areas across the site which took several days to subside. The first step to recovery was to clear the site of debris left behind by the flood waters. Portable heaters were used to dry out panels and we then completed a full site survey to understand the extent of the damage.

- **2 December** – A temporary panel was fitted to operate the final effluent pumps.
- **16 December** - The Environment Agency visited site to see the damage and understand the challenges we'd face with getting the site back up and running again.
- **18 December** - We switched the power back on.
- **23 December** - Telemetry was restored.
- **30 December** - The site was reseeded.



NORTH FERRY



[Watch the CCTV footage of North Ferry WRC flooding here:](#) AW_HH_US_BSY\Publish\ELECTRONIC DOCUMENT CONTROL LIBRARY\Waste Water LDC\Lincs\Compliance Action Plans\North ferry footage.zip