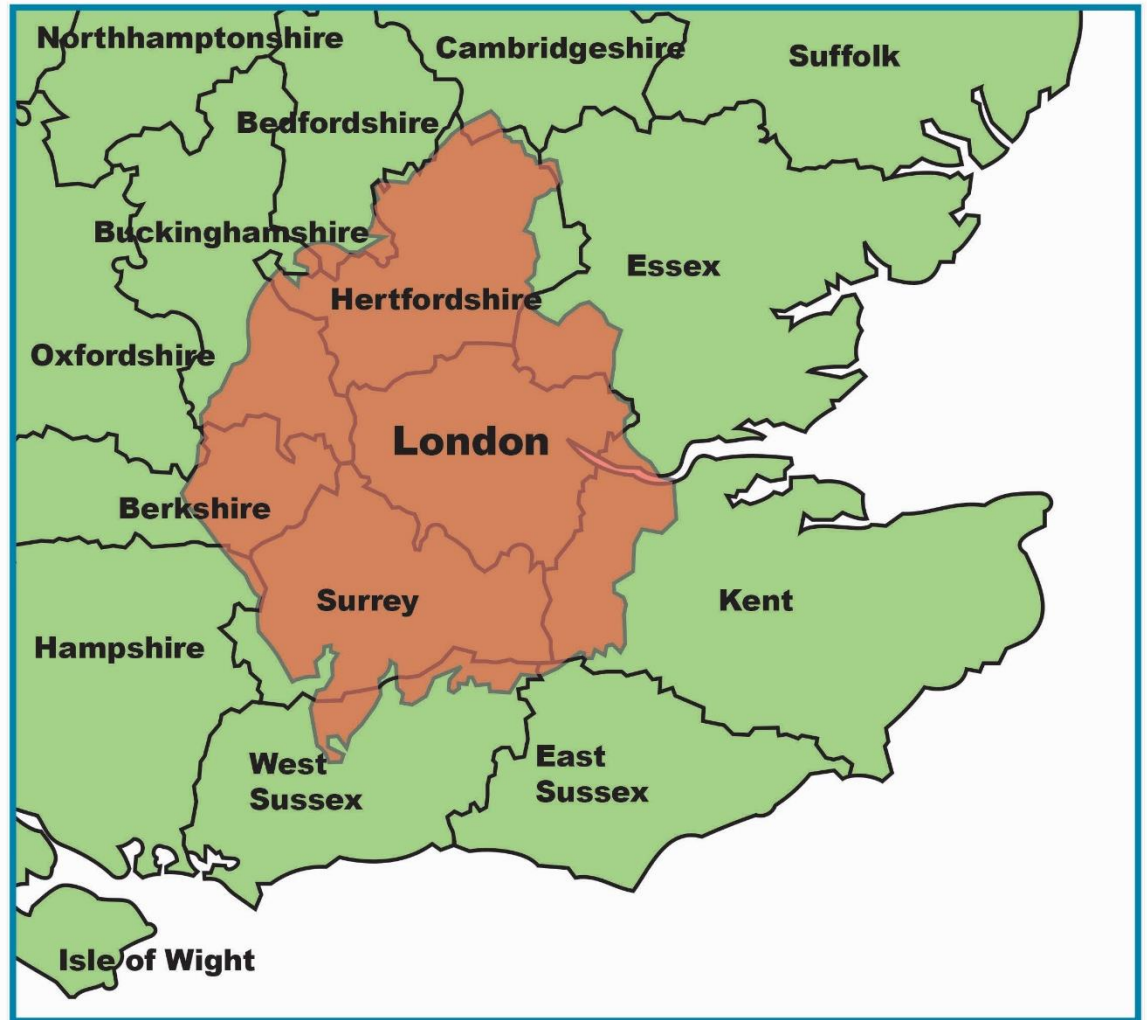
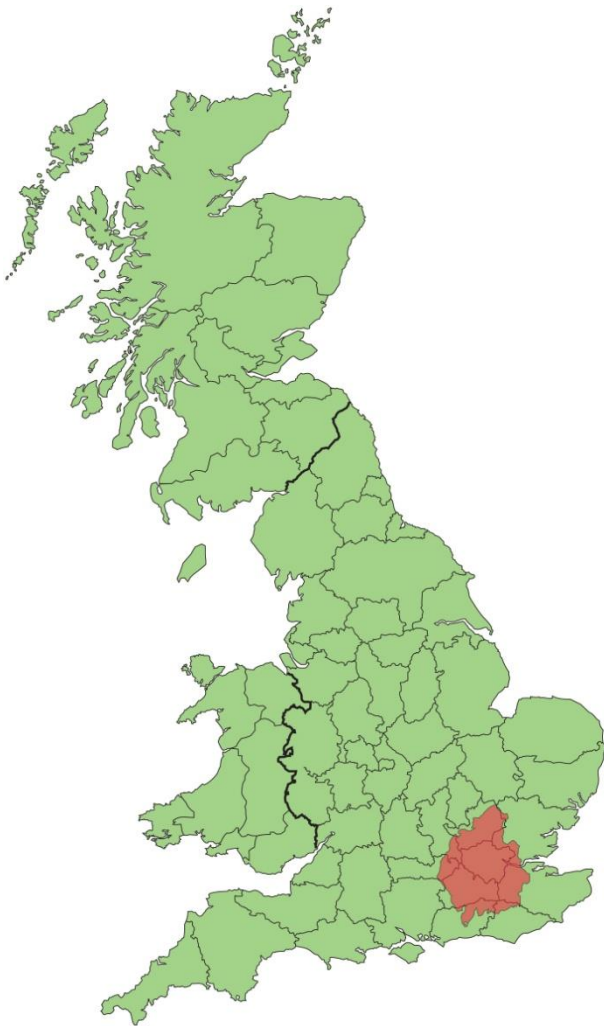


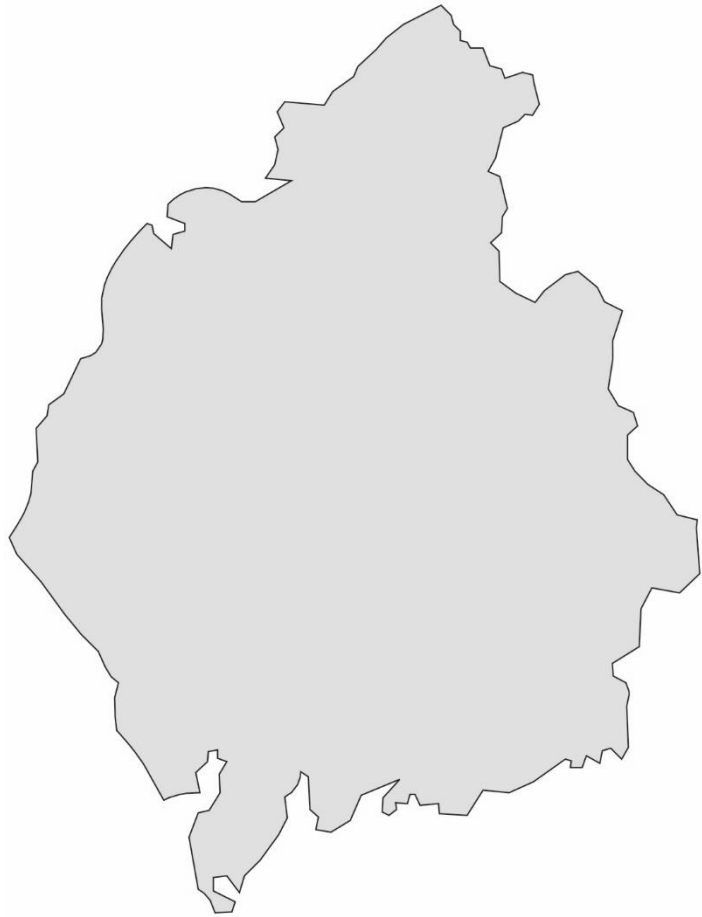
Cumbria County Council  
**Service Resilience and  
Winter Maintenance**

**Karl Melville**



Serving the people of Cumbria





- **500,000 residents**
- **One county council**
- **Six district councils**
- **Two National Park Authorities**
- **Six NHS organisations**
- **250+ parish and town councils**
- **Six MPs**
- **900+ elected officials  
(including parish and  
town councillors)**
- **18 Million Visitors**

# Adverse Weather Policy

- “Cumbria County Council as a Highway Authority has a duty to ensure so far as reasonably practicable that safe passage along the highway is not endangered by snow or ice”
- Policy Agreed by Cabinet for three years
- £3.9m Budget 2019/20
- **Full Service Review 2019/20**

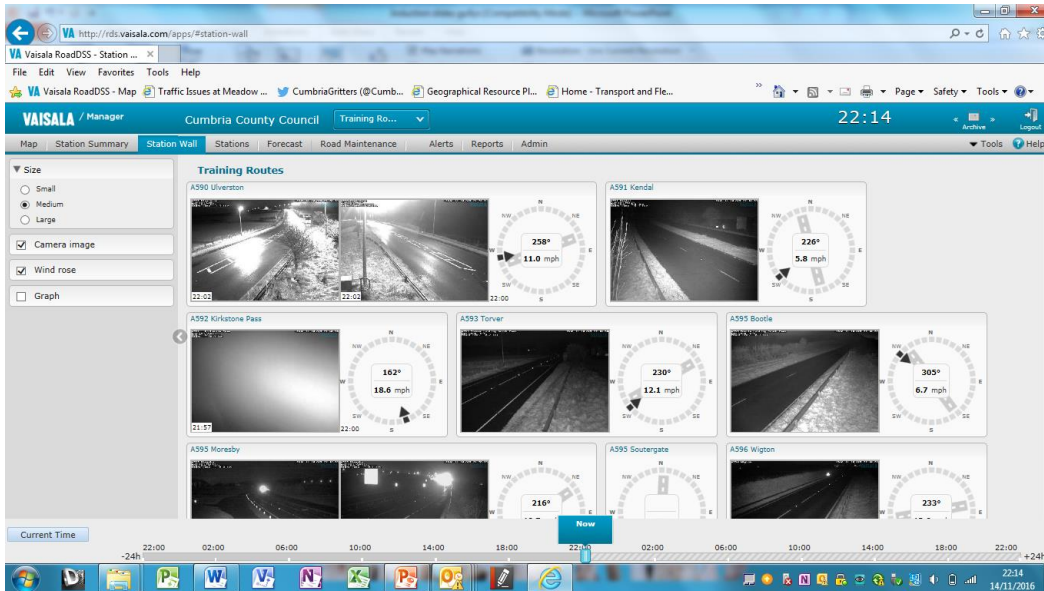


# Winter Maintenance

- 38 Mainline Gritters. 4 tractor routes in the South.
- Staffed depots
- 7,900 km Network length 29% (2,300km treated)
- 10,000 Salt Bins and Heaps
- Priority 1 Routes (within 3 hours)
- Priority 2 Routes (within 5 hours)
- Priority 3 Routes (more than 3 consecutive days)
- Footways
- 70 members of staff on standby in any one 24 hours
- 270 tonnes per full treatment



# Weather Forecasting



34 Weather Stations

18 Forecasting  
Stations

# Winter Fleet





# Salt Management

- 19,000 tonnes of salt on stock
- 4,000 tonnes of resilience salt on stock
- 270 tonnes per full treatment
- Minimum salt stock levels
- Summer rates/ Winter rates

# Snow Champions

- 130 Snow Champions currently registered
- Treat routes in local communities
- Deal with venerable residents
- Act as a point of contact for communities/Council
- Review Salt bins/ Grit heaps
- Activity promote service

# Parish Salt Scheme

- Instigated during periods of prolonged bad weather
- Provide Parish and Town Councils with up to 7 tonnes of salt for self help.
- Suitable location for salt to be stored in community
- Unused salt returned to nearby Highways Depot



Cumbria County Council

**Service Resilience**

# Storm Desmond: 1 to 6 December 2015 (Cumbria)



Storm Desmond brought exceptional rainfall to the north west of the country. In a 24 hour period, 34.1 cm of rain fell at Honister, Cumbria - the highest ever recorded.



**1.15 trillion**  
litres of rainfall



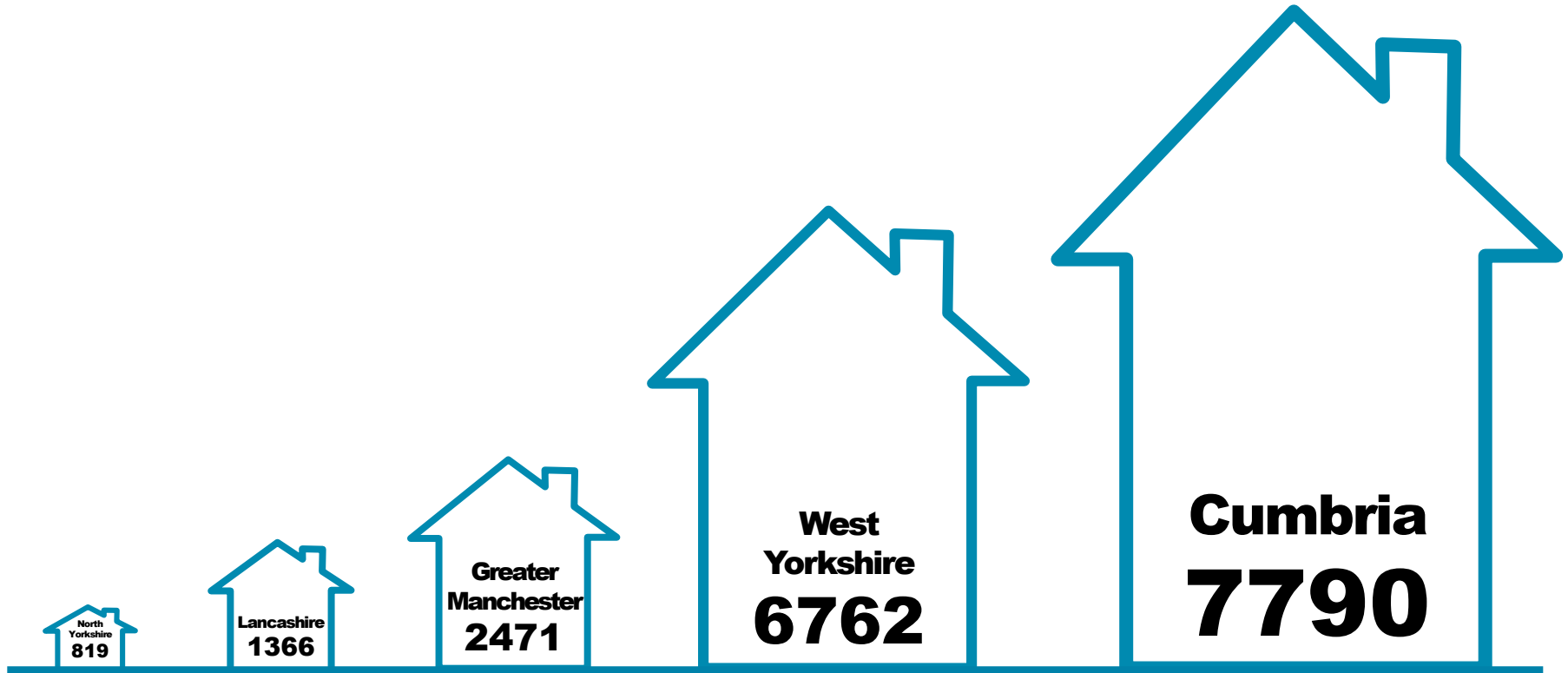
Enough to cover all  
of Cumbria with  
**16.1 cm** of water

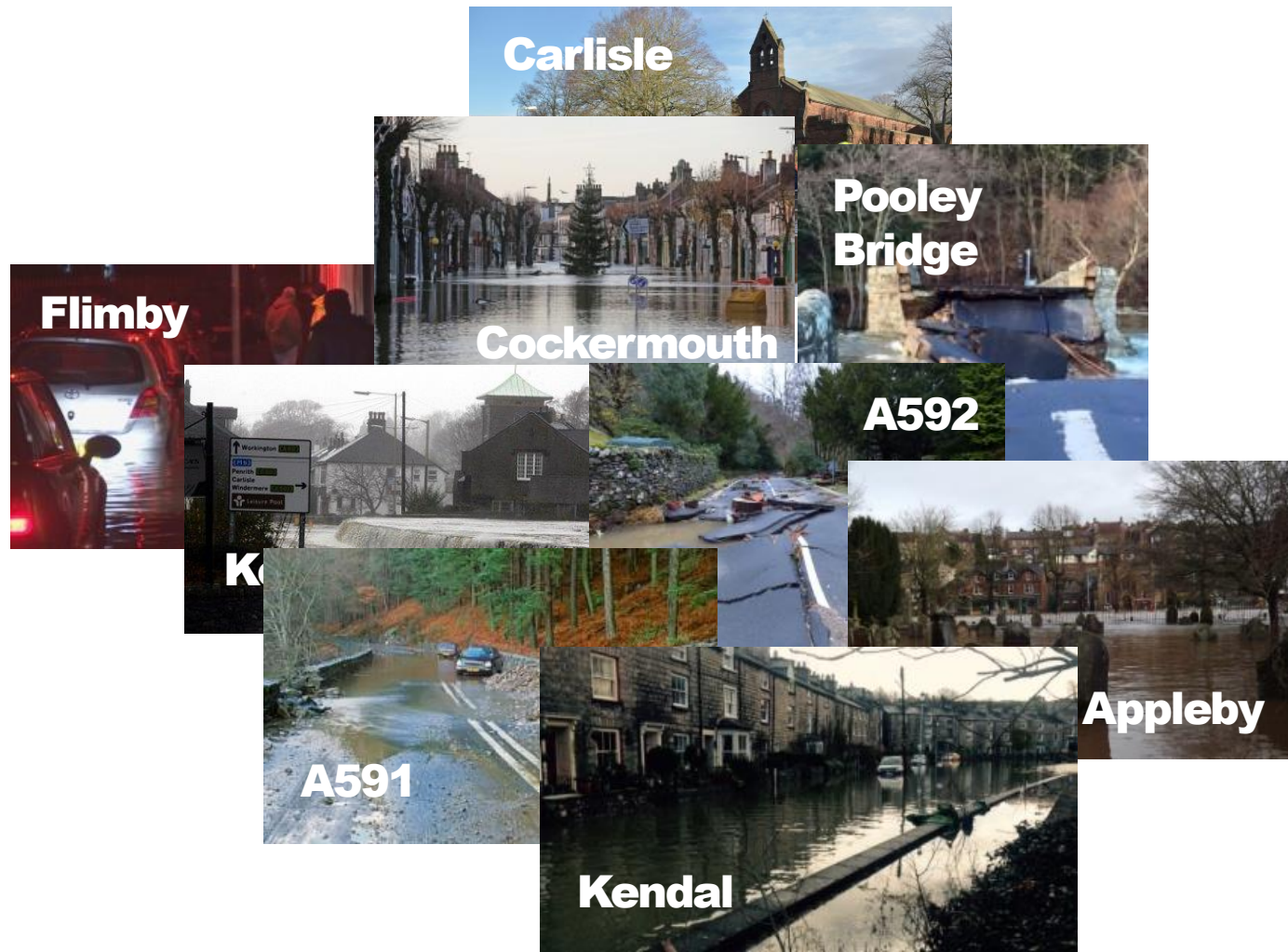


Rainfall would fill  
Wembley stadium  
almost **290 times** over



# Worst affected area





# Technology – Lighten the load



# Roads Innovation



- World first.
- 6,450,000 single use carrier bags.
- 2-year's into trial.

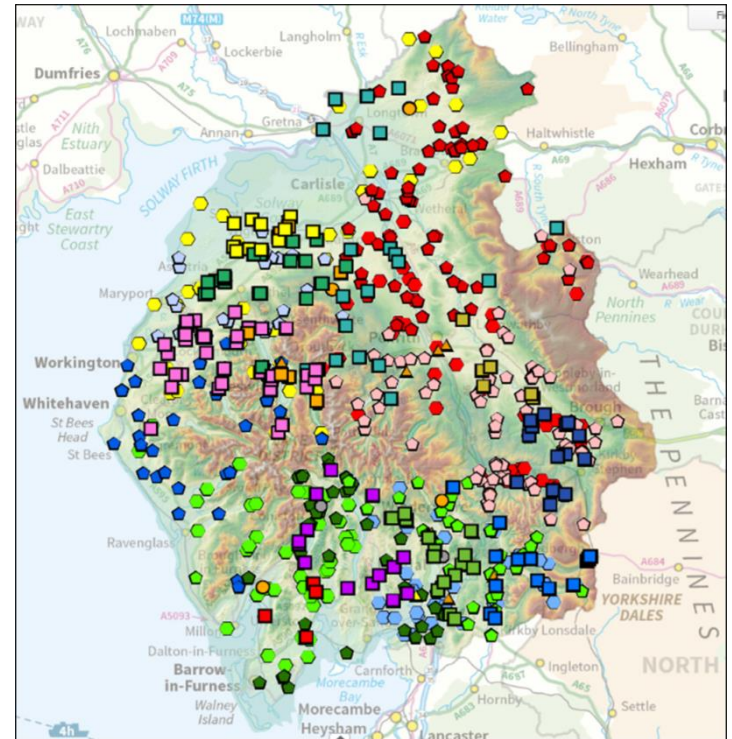


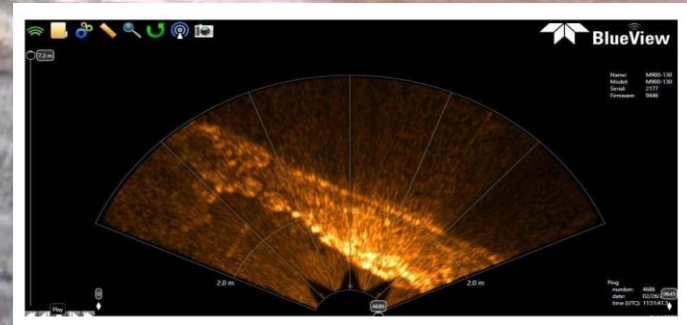
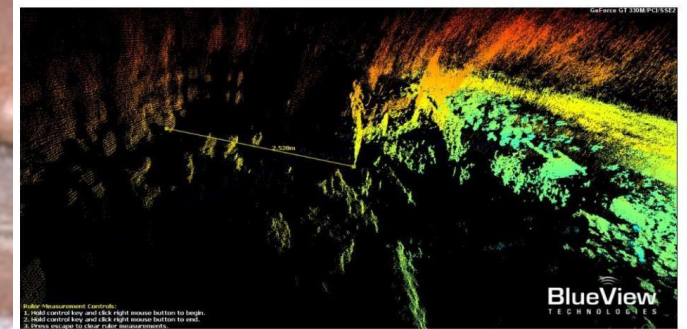
- World first.
- 18 months into trial.
- Flood resilience & increased efficiency.

# Roads Innovation




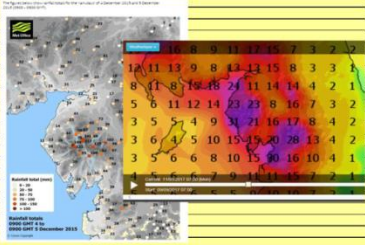

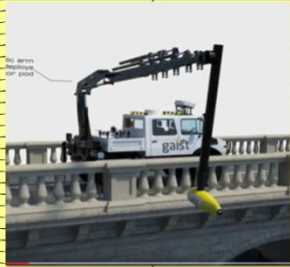

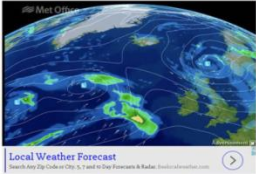
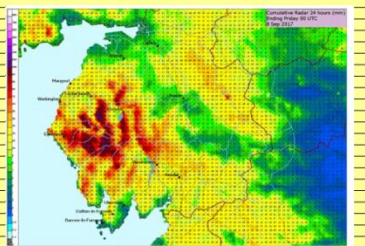



- Digital inspector trial.
- GIS based works planning and traffic management.
- Industry recognised collaborative contracting strategies.





# New technology

# Bridge Monitoring

Timescale	-3 days	-2 days	-24 hours	day 1	day 2	Week 1	Week 2	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
<b>CCC Actions</b>	<p>Provisional arrangements Gold/Silver/Bronze Command</p> <p>Put staff on general alert of potential need to assist if required</p>		<p>Gold/Silver/Bronze Command arrangements finalised</p> <p>Assessment of likely impact</p> <p>Assessment of catchments likely to be affected</p> <p>Organise CCC teams for deployment to affected catchments</p>		<p>Site inspections undertaken to assess risk to bridges where alerts raised - closures enforced where necessary</p> <p>Operational teams supported by Bridges and Structures Team</p> <p>Will help to define safe highway network with respect to bridge crossings</p>		<p>Underwater inspection of closed bridges to allow re-opening or deployment of emergency contractors to undertake repairs</p> <p>Underwater inspection of all bridges where alerts were raised within affected catchments</p>		<p>Repair of damaged bridges</p>				
<b>Alerts and monitoring</b>	<p>Met Office advance warning of approaching weather system</p>		<p>CCC Prediction tools</p> <p>Part 1 - Assessment of significance-Comparison of predicted rainfall totals to rainfall totals 2005, 2009, 2015</p>		<p>CCC Monitoring and alert tool</p> <p>Monitoring or rising river levels and bridge alerts for affected catchments</p> <p>Initially to be based on Scour Risk Rating for bridges on priority routes</p> <p>Alerts may be modified following completion of supplementary risk assessments</p>		<p>CCC checking of bridges in affected catchments</p> <p>Use of Bridgecat where possible and dive teams elsewhere</p> <p>Emergency repairs undertaken by Emergency Standby Contractors</p>		<p>CCC bridge repairs</p> <p>Using combination of in-house teams and supply chain</p>				
	 <p>Met Office</p>		 <p>CCC Prediction tools</p>		 <p>Derwent Catchment</p>		 <p>Bridgecat</p>						
	 <p>Local Weather Forecast</p>		 <p>Assessment of river catchments at risk</p>										

# **Communications – speed is everything**

Free school meal



- Jobs
- Roads & Travel
- Libraries/Archives
- Waste/Recycling
- Your Council
- Schools/Learning
- Health/Social Care
- More



- Popular**
- ▶ Job Vacancies
  - ▶ Bus timetables
  - ▶ School term and holiday dates
  - ▶ Renew library books
  - ▶ Library opening times
  - ▶ Find a school
  - ▶ Research Cumbria Archives
  - ▶ Report a highways fault
  - ▶ Apply for a blue badge

**Help is available 24/7 for anyone affected by the Cumbrian Floods 0345 988 1188**

**Click or Call**  
Help is available 24/7 for anyone affected by the Cumbrian floods

**Keep me posted**

Our free email alerts service will help keep you connected to the things that matter to you.

\*Email Address

Submit

**Find Services**

Find schools, libraries, GP surgeries and more:

Understanding the impact on the A591



Like Comment Share

267 Likes 118 Comments 37k Views

Our A591 video was  
watched by over  
**50,000**  
people

# Dive inspection video goes viral 30,000 people watch it in 48 hours







**CumbriaCountyCouncil**   
@CumbriaCC



Following

New [#A591](#) footpath nearly ready to go for start of term, well done to highways crews wrkng thru wkend. [#cumbriafloods](#)



RETWEETS  
28

LIKES  
33



12:02 AM - 4 Jan 2016



**This was the 9th most engaging Tweet from UK Government accounts on 4 January**

**Within its first day this tweet reached a potential**

**38,995**

**people**

Within its first day this tweet reached a potential

**71,810**

people

This was the 5th most engaging Tweet from UK Government accounts on 29 Dec



CumbriaCountyCouncil  
@CumbriaCC



Following

Crews working thru Xmas to clear #A591. More minor landslips, trees to shift, culverts to clear. #cumbriafloods



RETWEETS 31



11:09 AM - 29 Dec 2015



Within its first day this tweet reached a potential

**71,810**

people

This was the 5th most engaging Tweet from UK Government accounts on 29 Dec



CumbriaCountyCouncil  
@CumbriaCC



Following

Crews working thru Xmas to clear #A591. More minor landslips, trees to shift, culverts to clear. #cumbriafloods



RETWEETS 31



11:09 AM - 29 Dec 2015





CumbriaCountyCouncil  
@CumbriaCC



Following

Please RT - [#Carlisle](#) Eden Bridge is OPEN! Pedestrians & vehicles can now safely use the bridge. Thanks all involved!  
[#Cumbria](#)

RETWEETS 157  
LIKES 64



6:44 AM - 18 Dec 2015



**This was the most engaging Tweet from UK Government accounts on 18 Dec**

**Within its first day this tweet reached a potential 84,746 people**



Serving the people of Cumbria



**potential  
reach  
17.4  
million**

(combined number of potential users that saw any content associated with @CumbriaCC)



# The Beast from the East



# The Beast from the East



# The Beast from the East





# The Beast from the East



# The Beast from the East



# Lessons Learnt

- Gold Command
- Threat to Life (Game Changer)
- Plant and equipment Review
- New Weather Stations
- Contracts
  - Plant
  - Staff

# Thank You

# Question